



SEPTEMBER 2024

ABSTRACT BOOK

Short Orals and Lightning Talks

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2024 Abstract Book

Short Orals & Lightning Talks

Day 1 – Wednesday 25th September	20
Morning.....	20
Short Orals.....	20
Integrating traditional care for Indigenous women seeking antenatal care in rural Guatemala: Results from an ethnographic study : (3544) Arja Huestis Garcia...	20
Supporting Quality Mental Health Services for Adolescent Depression in Primary Care: A Learning System Approach: (1536) Diana Sarakbi	21
"It can be a lonely job": Role experiences of paediatric care coordinators working in rural Australia: (2787) Yvonne Zurynski	23
The need for early intervention to meet the unmet biopsychosocial needs of children with common chronic illness: (1978) Raghu Lingam	25
Re-thinking integrated care for the most vulnerable people using Community Paramedics: (1845) Peter Hibbert	26
Patient engagement for patient safety: results of a Belgian survey: (1861) Quentin Schoonvaere	28
Effect of pressure injury reduction project utilizing three types of continuity of care on pressure injury incidence rates in a general hospital: (3502) Suryang Seo.....	30
Patient as Observer Intervention to Increase Hand Hygiene Adherence among Healthcare Workers in the Ambulatory Setting: (2873) Vickly LoPachin.....	32
Mutual Healing Program©: Helping patients, their families and healthcare workers heal together after unexpected medical harm: (1638) Wendy Nicklin .	33
Improving the quality of antenatal care (ANC) and postnatal care (PNC) services by strengthening supportive supervision of service providers at private health facilities in urban slums of Bangladesh: (2986) Anjuman Begum	35
Promoting Factual, Affirming, Informative and Respectful (FAIR) Documentation in the EHR to Reduce Bias and Improve Patient Care: (3240) Carol R. Horowitz	37
What matters the most for the quality of inpatient treatment and care experience?: (3061) Gang Chen	39
Interweaving quality and circular economy in healthcare: A synergistic framework : (3236) İbrahim Halil Kayral	40
Implementation of Key Result-based Digital-Performance Management System for Quality Manpower, Leadership Excellence and Safe Patient care in a Multispecialty Hospital: (2100) Amitha Prashanth Marla	42
Care Under Pressure 2: causes and solutions to workplace psychological ill-health for nurses, midwives and paramedics- a realist review: (2744) Jill Mabe	45

Sustaining Community-Based Family Planning Service Delivery in the Philippines through Community Health Worker Capacitation: A Systematic Task Shifting Strategy: (2864) Jaime Dela Roca Bonifacio, Jr.	47
Comparative Analysis of Perioperative Patient Safety Policies in Five European Countries: Findings from the SAFEST Project : (1760) Kaja Kristensen	48
How Organisational Research Culture and Translational Research Pathways Are Affecting Research Translation: A Mixed-Methods Study in an Australian Healthcare Organisation: (1980) Carolyn L Smith	50
Strengthening Quality Assurance System for Malaria Microscopy to Improve the Quality of Parasitological Confirmation in Benue, Nasarawa, Plateau, and Zamfara states in Nigeria: (2545) Methodius Okouzi.....	51
Culture of quality ‘traps’ for quality improvement for mothers and children in the Kyrgyz Republic: (3289) Nurshaim Tilenbaeva	53
Lightning Talks	54
In-vitro fertilization (IVF) patient perspective and experiences with digital innovation during treatment in Vietnam: (2344) Anh Dang.....	54
Co-designing a hospitality program to improve supportive care in oncology: (3461) Chantal Arditi	57
Reducing Obstetric Fistula Surgical Backlog Through a Comprehensive Routine Service Delivery Model in Makueni County, Kenya: A promising approach: (3465) Christine Kalondu Muia	58
Enhancing cervical Cancer screening Pathway in a Health network -Saudi Arabia: (2995) Duaa Al Abbas.....	59
The Patient-centred Care Team: Effect on Patient reported Health-related Quality of Life: (3228) Gro Karine Rosvold Berntsen	61
A Framework for Improving Clinical Quality In Ensuring Good Clinical Outcomes and Enhanced Patient Experience In Surgery Care Through A Digital Approach: (2786) Ilaveyini Selvaraj	63
Implementation of Person Centered Care in Turkiye: Challenges and Success Points Learned from a Unique Culture: (3413) Ilkay Baylam	64
Ethics are relational: A Critical Systems Thinking approach to implementing ethics in medical AI: (1567) Magali Goirand	65
Supporting women middle managers in the Health and Social Service System by fostering their psychological well-being : A qualitative inquiry into lived experiences: (2354) Eric Walling	66

Quality Improvement Capacity Building Program for the Nigerian National Clinical Mentors Program - Lessons Learnt from Implementation: (1337) Isa Salihu Daniel.....	68
Implementing Genomics in Primary Care: (2974) Janet C Long.....	69
Changes in health Insurance coverage and the utilization of Cone Beam CT; Health insurance claims data from 2013 to 2022: (2716) Jeonghye Kim.....	70
Patient safety culture in general population: an unmet need: (2350) Micaela La Regina	72
Feasibility and Preliminary Evaluation of Cognitive Stimulation Therapy (CST) in Elderly Patients with Mild to Moderate Dementia in KPJ Damansara Specialist Hospital: (2370) Parwathi Alagirisamy	73
Human-centered Design Approach for Group Antenatal-Postnatal (ANC-PNC) improves accessibility of ANC-PNC services: (2993) Shafia Rashid	75
Eliminating Delays in Pharmaceuticals Re-ordering Process through Automation: (1141) Zarfan Ali	77
Lunchtime	81
Lightning Talks	81
Surveyor Training in China, moving from a National to an Internationally accredited programme Introduction: (2695) A. LEE	81
Assessing the quality of facilities in all healthcare sectors: harmonization underway in France: (2029) Amélie LANSIAUX	83
The Impact of the Co-Production Model on the Health Accreditation Process in Brazil: (3030) Ana Carla Restituti.....	84
Enhancing Pediatric Healthcare Quality and Safety: A Case Study of International Accreditation Implementation in Iashvili Children's Central Hospital, Tbilisi, Georgia: (2335) Lela Tsakadze.....	85
Exploring Quality of HA standards: An Observational Study of HA Scoring Guidelines and Standards Compliance Evaluation in Thailand: (2793) Piyawan Limpanyalert	87
ACE (awareness compliance & excellence) for CSSD at a tertiary care facility: (2966) Shweta Prabhakar.....	90
Impact of the OECD Designation and Accreditation Program on the Arturo Lopez Perez Foundation (FALP), Chile: (2220) Silvia Basso.....	92
Pros and Cons of Survey Report Verification and Strategy for Improving The Effectiveness of It: (3029) Yael Esthi Nurfitri Kuncoro	94

The advantages and weaknesses of providing 13 Accreditation Organizing Institutions for Community Health Centres: Indonesia experience: (3233) Yanti Herman	95
Accreditation Surveyors According to the 5-Factor Theory of Personality: (3231) Zuhal Cayirtepe	97
Ethics and Health Accreditation Standards in the Era of Artificial Intelligence: (3204) Zuhal Cayirtepe	98
Co-production and implementation of a handbook for the primary healthcare centers quality documentation: (3001) Wafa Allouche	100
ARTIFICIAL INTELLIGENCE IN HEALTHCARE: ADVANCING PATIENT EXPERIENCE AND OPERATIONAL EFFICIENCY: (1182) Ahmed G. Newera	103
Communication during telemedicine consultations in general practice: Perspectives from general practitioners and their patients: (1722) Amy Nguyen	105
Comparison of Treatment Discontinuation Risk Between Oral Medication and Long-Acting Injectable in Schizophrenia : Using PSM and IPW: (2672) Kyungmi Kim	106
Patient Perspective of the Clinical Learning Environment: (1877) Nancy Koh ..	109
THE USE OF THE UNIMETRICS PLATFORM – MANAGEMENT INFORMATION CLASSIFICATION MODULE (CIG) FOR COSTS, RESULTS AND QUALITY MANAGEMENT IN HEALTH INSURANCE COMPANIES IN BRAZIL, 2019 TO 2023: (1921) Fabio Leite Gastal	110
Lessons of the NuRS study. Reflections and approaches from a multi-centre big data study in the NHS: (2928) Sarahjane Jones	111
Patient-Centric Efficiency: Accelerating Discharge Processes for Enhanced Healthcare Satisfaction: (3069) Shoaib Hassan	112
The Effect of Education Given With The Teach Back Method on Chemotherapy Symptom Management and Quality of Life: A Randomized Controlled Trial: (3107) Belkıs Güllü Gücüyener	115
Enhancing Clinical Outcomes in Diabetic Kidney Disease (DKD) through Risk Prediction and Case Management in Patients with Diabetes: (2143) Mao Cheng-Hsien	116
Afternoon	118
Short Orals	118
Quality practices in mental health: An example from Turkey: (3305) Hülya Şahin	118

Safety Culture - challenges and the perspective under the lens of equity: (1635) Aline Cristina Pedroso	119
TRESNO KOE (Indonesian acronym for Problem-solving Respons Point for JKN Mobile Online Registration): (3301) Tri Wahyuningsih.....	121
Health Justice in fragile and shock-prone settings: from theory to practice towards building resilient health systems: (3441) Wesam Mansour	123
Benefits of external accreditation in primary care services: (3330) Ana Maria Saut	125
Advantage use of External Evaluation on Clinical Performance during Hospital Mentoring: (3192) Dwirani Amelia	127
An exploratory study into the perceived impact of the accreditation on health care quality and its associated cost among accredited healthcare organizations (HCOS) in India: (2940) Prashanth Nag	128
Factors Affecting the Sustainability of Hospital Accreditation Program Establishment and Implementation in Low- and Middle-Income Countries (LMICs): (1619) Reece Hinchcliff	131
JCI Enterprise Accreditation – Quality Improvement for Complex Health Systems: (3311) Joel Andrew Roos	134
'Healthcare in my happy place': co-designing digital health to support access to care in First Nations remote communities: (3014) Tim J Shaw	135
Efficiency of AI Models in Complication Detection after Surgery: (2311) Julia Vetter.....	136
Optimizing Hospital Readmission Reduction with Predictive Machine Learning and Bundle Care Models: (2057) Mao Cheng-Hsien.....	138
Leveraging advanced analytics and electronic health data to monitor trajectories of medicine use in residential aged care: insights from the MED-TRAC studies: (2991) Nasir Wabe	139
Digital Medical Devices for Professional Use: A new framework initiated by the French National Authority for Health (HAS): (2033) Simon Renner	141
Global Impact through a Local Lens: Introducing a Localized Accreditation Framework for Georgia: (1254) Katerina Tarasova	142
Through the eyes of the health care providers: Exploring the state of patient safety culture in a selected hospital in North West Province, South Africa: (2601) Sabelile Tenza	143

Analysis of enablers and barriers to After Action Review of patient safety events in an Irish hospital and identification of behaviour change techniques to support implementation: (2998) Siobhan E McCarthy	144
What's in a Learning Health System? A rapid review of emerging definitions, models, and frameworks: (3002) Georgia Fisher.....	145
Mortality 30 days after acute myocardial infarction: Results of a French national indicator based on medico-administrative data: (3283) Linda Banaei-Bouchareb	146
Lightning Talks	148
Perception of stakeholders' readiness and recommendations for health system policy and implementation in scaling up Hospital-at-Home care model: A descriptive qualitative study: (1859) Crystal Min Siu Chua	148
AI tracking Multidisciplinary Decision Making: Enabling a regional support tool: (3392) Dominic Van Loggerenberg.....	149
A Comprehensive Survey of the Clinical Trial Landscape on Digital Therapeutics: (2275) Han Yao	150
Use process control and digital transformation to improve operating room efficiency: (1807) Hsing-Hao Su	152
The digital direct-to-consumer telemedicine revolution: Consumer perspectives of benefits and pitfalls: (2466) Louise Ellis	153
Prioritising electronic health record optimisation to reduce technology-related prescribing errors and improve patient safety: results from two tertiary paediatric hospitals: (2387) Magda Z Raban.....	154
How well do electronic health records support medication administration in paediatric hospitals?: (2422) Magda Z Raban	156
Community engagement to build a bridge: an empirical examination of the strategic large-scale redesign of future health services: (2252) David Greenfield	157
From Bits to Brilliance: Enhancing the Efficiency of Cancer Registry Coding Quality Review by Human-factors engineering digitalization at a Medical Center in Taiwan: (1784) Mau-Shin Chi	158
Digital Health Transformation: "What and How to Achieve Success?": (2667) Rr Tutik Sri Hariyati.....	160
A Sustainable Health Technologies Innovation Model To Improve LRS Clinical Outcomes: (3327) Stefano Bergamasco	162

Development of AI-based fall prevention models from the perspective of artificial intelligence in healthcare: (2804) Ya-Ting Ke	164
Use of Artificial Intelligence to Improve Radiology Service Efficiency: (1939) Yung-Cheng Wang	165
Good healthcare simulation practices: recent works in France: (1910) Zineb Messarat-Haddouche	167
Case Report: Assisted Village Project By Rizki Amalia Medika Hospital Support National Program Against Stunting Wasting: (2710) Anggrieni Wisni	168
They Save Your Life, We Give it Back: A Quicker, Safer Track to Specialty Beds: (3401) Allison Philpot	170
Increasing the Capacity for Cervical Cancer Screening for Women on Anti-Retroviral Therapy at ALERT Comprehensive Specialized Hospital: A Quality Improvement Project: (1094) Abeba Aleka Kebede	171
Day 2 – Thursday 26th September	174
Morning.....	174
Short Orals.....	174
Can ‘living’ guidelines be made, and if so, will they be used? An evaluation of the Australian Living Stroke Guidelines: (2390) Peter D Hibbert.....	174
Development of a national mapping tool for quality and patient safety assurance in the hospital settings: the MaQPS instrument, structure- criteria- rating methodology and verification method: (2225) Angeliki Katsapi.....	176
Accreditation of Healthcare Facilities in France: A Lever for Developing Good Digital Practices and Preventing Cyber Risks: (2920) Anne Chevrier	177
The best results for Virtual Surveys: (1930) Fabio Leite Gastal	179
Beyond Standards: Exploring the Impact of Hospital Accreditation on Patients’ Experience: (1368) Mahi Mahmoud Al-Tehewy	180
Quality improvement (QI) as an essential tool for disaster preparedness: How New Orleans (NOLA) assures safety for persons living with HIV (PLWH) in its healthcare system as hurricanes surge: (3414) Bruce D Agins	181
Pioneering accreditation standards for low-carbon, sustainable and resilient hospitals: (1637) Sylvia Basterrechea.....	182
Desflurane-Sparing Anesthesia Practice: Tackling Climate Change from the Operating Theatre: (1733) Annemarie Chrysantia Melati	184
An evaluation on the effect of climate change on health: The case study of quality employees: (3217) Elif Özyurt.....	185

Exploring the Implementation of Sustainable Operational Strategies in Healthcare Institutions: (2531) Syuan-Fang Jian.....	188
Digital Health Stakeholders' Views: Using Electronic Medical Records in Improving Communication between Hospitalised Patients and Health Professionals across Transitions of Care: (2038) Guncag Ozavci	190
Using the cohort effect to boost improvement projects in ovarian cancer: (2213) Helen Crisp	191
Learning from Soft Intelligence for Patient Safety: Development and Piloting of a Tool for Continuous Data Capture and Sensemaking: (2899) Jonathan Benn ..	193
An online-based patient safety culture survey at 20 healthcare facilities in six districts in Indonesia: a benchmarking study: (3080) Poppy Elvira Deviany	194
Analysis of barriers and facilitators of patient safety culture assessments in Brazil using the consolidated framework for implementation research: (3492) Zenewton André da Silva Gama	196
Incorporating safety into patient experience daily huddles: its association with patient safety culture in ambulatory centers: (2349) Alejandro Arrieta	197
First national survey to measure patient safety culture within healthcare facilities in France: (2840) Amélie Lansiaux.....	199
Enhancing Maternal Health Care through Patient Feedback: The Role of Women's Education in Quality Improvement: (2955) Elisabeth Ezekiel.....	201
Safety Culture Redefined: A Leadership Perspective in Healthcare Transformation: (1354) Gaurav Loria	203
Correlation between patient safety culture and the safety-relevant attitude of supervisors in Austrian hospitals: Potential for improvement: (2846) Guido Offermanns.....	204
Findings from Ireland's first National End of Life Survey; a survey of bereaved people on care provided to relatives and friends in the last three months of life: (3184) Donnacha O' Ceallaigh	205
Lightning Talks	206
Integrating Cervical Cancer Screening Program as Modle of Care in Eastern Health Cluster: (2753) Dalia Al-OUF	206
Improving Performance for Private Practice Midwife through online Client Satisfaction Survey: (2260) Damaryanti Suryaningsih	209
Enhancing Diversity in Health Research through Research Engagement Network (REN): A Hyperlocal Community- Based Approach in Northwest London (NWL): (2622) Ganesh Sathyamoorthy	211

Interdisciplinary collaboration and computer-assisted home healthcare referral in the emergency department: An innovative model in Taiwan: (3245) Hung-Jung Lin	213
Hub and Spoke Model: To Nurture Quality Improvement of Neonatal Services across four Nahdatul Ulama Hospital Network in East Java Province, Indonesia: (3072) Istiyani Purbaabsari	214
Establish a Diversified Palliative Care Network in Long-term Care Institutions: (2397) Jheng-Ling Li	215
Municipality rehabilitation after hospital admission: (1847) Lars Morsø	217
Tumor markers changed among hepatitis C adults after antiviral therapy: Implication for primary healthcare: (1815) Mei-Yen Chen	218
My Voice Our Stories: using storytelling data to inform public policy and address unmet needs: (3357) Michael T Hager	220
Association between PM2.5 exposure and incident Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD): a Cohort Study: (3390) Wei-Chun Cheng	221
Massive Closure of Pediatric Clinics and Exodus of Pediatricians in Korea: (1692) Jin Yong Lee	223
Price determinants of medical procedures, devices, and medicine: A comparative analysis of national health insurance in five countries: (1746) Jiyoung Keum	224
Patient Safety Leadership WalkRounds™ and Patient Focused Methodology collaborate to create a culture of safety: (2375) Ke-Yung Zhuang	225
“Working with babies brings me a lot of joy – also brings me routine, money and stability” Keeping paediatric nurses in nursing: (1322) Laurel Mimmo	227
Changing ‘the way we do things around here’: Improving organisational culture for staff and residents in residential aged care: (2270) Maree Saba	228
Resilience in Australian Healthcare: Analysing Team Factors for Adaptive Capacity: (2159) Maree Saba	230
Implementation experiences of providing care coordination for children with medical complexity in rural Australia: (2619) Raghu Lingam	231
Psychosocial complexity and limited preparation for transition to adult services for young people living with type-1 diabetes results in care fragmentation: A multi-method study: (2270) Yvonne Zurynski	232
Lunchtime	234
Lightning Talks	234

Turning data into safety: A data-driven approach to mitigating risks for aging adults with type 2 diabetes: (2954) Amy Nguyen.....	234
Privacy as a Ruse? Reframing legal and ethical challenges to improve engagement with quality improvement using health data: (3278) Kavisha Shah	235
Advancing Patient Safety and Quality Education for a Sustainable Future: (2494) Mabel Sim	236
Root Cause Analysis and strategies to implementing actions based on lessons learned from sentinel events: (3388) Mayara Santos.....	238
The impact of nurse outcomes on nurse-perceived patient outcomes in South African hospitals: (3189) Alwiena J. Blignaut	242
Relation Between The Implementation Of International Patient Safety Goals (IPSG) And Patient Satisfaction At The Persahabatan Centre General Hospital: (2760) Endah Nurohmah	243
Validating rates of nursing-sensitive adverse events in administrative healthcare data in Ireland: A retrospective chart review study: (2557) Anna Connolly	244
Reducing Vascular Complications via Femoral Artery Approach for Post Elective Procedure in Improving Patient Safety: (1943) Arni Azura Abd Karim	246
Improving malaria case management quality by reducing irrational use of antimalarials - A systems thinking approach in four southern states (Akwa Ibom, Cross River, Ebonyi, and Oyo) in Nigeria: (2540) Augustine Firima	247
Evaluation of Nurses' Attitudes and Knowledge Levels Regarding Safe Medication Use Process: (2806) Birkan Tapan	248
Improve the correctness of patient self-care after joint replacement surgery: (3277) Chen Chan Kuo	249
Enhancing Taiwan Patient-safety Reporting Volume through Patient Safety WalkRounds: (2645) Chien-Kai Lo	250
Implementation of patient blood management program in transfusion practice of orthotopic liver transplantation: (2126) Chueng-He Lu	251
Language Services for Limited English Proficient Patient Quality and Safety - Dashboard and Data Driven Process Improvement (3477) Samuel Verkhovsky	253
The ADR journey – improving adverse drug reaction management to decrease the risk of patient harm: (1307) Linda Velta Graudins	254
A Bibliometric Analysis of Studies on Sustainability and Quality in Healthcare Services: (2749) Ahmet Yesildag	255

Assessment of sustainable healthcare practices in Indonesian hospitals: A focus in water, sanitation, and care waste management interventions: (2761) Hanny Rono Sulistyio	257
ELECTRONIC WITNESS SYSTEM IN FERTILITY CENTER: STAFF AND PATIENTS PERSPECTIVES: (2050) Quyen Dang	258
Implementation of Patients Safety Checklist (PASC) in Surgery, a Stepped Wedge Cluster RCT - Effects on Patient and Implementation Outcomes: (3561) Arvid Steinar Haugen.....	260
Short Orals.....	261
Advancing Co-design Research Tools for Evidence-Based Quality and Patient Safety Improvements: Insights from the Development of the Irish National Quality and Patient Safety Competency Framework: (1426) Dimuthu Wasana Rathnayake	261
Optimizing Effective Access to Sexual and Reproductive Services in Primary Healthcare Settings through joint optimization of technical, human and care culture values in selected facilities in Ethiopia: (2815) Berhanetsehay Teklewold	262
Patient-Centric Progress: Unveiling the Landscape of Shared Decision Making at Shin Kong Medical Center: (1880) Jui-Ting Chang	264
DISCO with Patients, Patient Advocates and Healthcare Teams – A Healthcare Improvement Collaboration Platform: (1302) Keith Heng	266
Embedding evidence-based professional development tools and quality improvement resources for General Practitioners to improve patient experience in healthcare: (3581) Tina Janamian	268
Utilizing Information Technology in Community Large-Scale Events: Establishing Real-Time Care Models to Enhance Medical Efficiency: (2093) Chia Hui Chu .	269
Empowering Women's Access to Quality Healthcare Through AI-Enabled Virtual Coaching Support: (3387) Elisabeth Ezekiel.....	270
Evaluations of the surveyor and the assessed organization related to the remote survey using the eye tracking and augmented reality technologies: (3137) Keziban AVCI	273
The SEE-IT Trial: Emergency Medical Services Streaming Enabled Evaluation in Trauma. A feasibility randomised controlled trial: (3174) Lucie Ollis	274
Telehealth utilization trends for respiratory conditions in Australian General Practice: A means to reduce infection risk during the pandemic and beyond: (2829) Mirela Prgomet	276

Strengthening Patient Safety and Driving Quality Improvement: Healthcare Accreditation and Information Technology in the Era of Digital Transformation in Thailand: (3370) Piyawan Limpanyalert	278
Facilitating a Positive Patient Safety Culture by Learning: (2868) John Fitzsimons	281
Advancing healthcare quality: The Nambian experience in implementing international quality standards in public hospitals: (1787) Apollo Basenero ...	282
Catalyzing 'Herd Quality in healthcare': NABH motivating accredited hospitals to mentor smaller healthcare facilities in rural and urban settings in India - A pilot project: (3079) Atul Mohan Kochhar	284
A Learning Health System initiative to improve MS outcomes: The Multiple Sclerosis Continuous Quality Improvement Collaborative (MS-CQI) multicenter step-wedge randomized controlled study: (3519) Brant Oliver.....	285
The Learning Organization: A New Concept in Lebanese Hospitals: (1366) Jamal Ahmad Yasmine.....	287
Patient Safety in Community-based Surgical Centers in Alberta, Canada: a descriptive study of post-surgical adverse events in accredited non-hospital facilities from 2018 to 2023: (3491) Fizza Israr Gilani	289
Experiences of early-career health professionals in the WiSDOM cohort study of their clinical practice environments in South Africa: (2010) Laetitia Charmaine Rispel	291
Building an authorising environment to enable large-scale change programs: learning from an Australian statewide initiative: (2188) Janet C Long.....	292
Polypharmacy measurement in aged care settings: discrepancies between prescribed and administered polypharmacy rates have implications for quality indicator reporting guidelines: (1745) Nasir Wabe	293
Implementing the National Policy for Quality in Healthcare for Malaysia: Tracking the First-year Progress: (2051) Samsiah Awang	294
Lightning Talks	295
Multiple strategies to improve sarcopenia for nursing home residents: (1209) Chia-Ming Chi	295
Towards a digital age: Project Lakshya: (1344) Gaurav Loria	297
Patient Discharge Journey - An Enigma Decoded!: (1270) Gaurav Loria	299
Towards patient-centred communication in the management of older patients' medications across transitions of care: A focused ethnographic study: (3004) Guncag Ozavci	301

The Risks of Patient Safety caused by Information Technology-preliminary results in Taiwan: (1447) Han-Chi Chung.....	303
To Determine Nurses' Attitudes Towards Convicted Patients: (2691) Hanife Cakir	305
How we can learn from mistakes - health and social care safety investigation as a fostering patient and client safety: (3130) Hanna Tiirinki	305
Registration of indicators across ten patient safety themes – The status a decade after the implementation of the Dutch National Patient Safety program: (2874) Hanneke Merten	307
Adverse events and screening on frailty indicators for older patients in Dutch hospitals: results of a retrospective record review study: (3347) Hanneke Merten	308
Using Quality Control Circle to Optimise Hospital Pharmacy Inventory Management Processes-A Case Study of a Medical Center in Taiwan: (1207) Jing-Ying Huang.....	310
Point of Care Quality Improvement (POCQI) Model Implementation in Jordan: (3466) Heba Mezeyd	312
Using ultrasound guidance to reduce the rate of venous catheter repositioning: (2730) Hsieh Shih Wei	314
Improving Medication Safety for New Healthcare Staff with HFACS Human Factors Analysis and Experiential Activity Teaching: (1998) HsiuHsia Weng....	316
Measuring Health system performance; a new approach to accountability and quality improvement in Jordan: A qualitative study: (2797) Ibrahim Aqel.....	317
Care Behavior Impact and Acceptability of Scope-Based Structured Point of care obstetric ultrasound (SPOUS) provided at Point of practice in Selected Rural Primary care setups in Ethiopia: (2816) Ishmael Shemsedin	321
NON-CLINICAL SPECIFIC INTERVENTIONS TO IMPROVE PATIENT SAFETY IN PERIOPERATIVE CARE PROCESS: AN UMBRELLA REVIEW: (2007) Janne Kommusaar	323
Determinants of Inpatient Satisfaction in a Post-Acute Care Rehabilitation Hospital in the US: (1988) Jing Xu	324
Facilitators and barriers of critical care nurses' alarm customization on the physiologic monitor: An interpretive descriptive study: (3300) Liqing Yue	326
Day 3 – Friday 27th September	327
Morning.....	327
Short Orals.....	327

What are the key patient experiences driving overall rating of cancer care? Insights from the Swiss Cancer Patient Experiences (SCAPE-2) study: (3417) Chantal Arditi	327
Improving patient participation in value improvement teams: An action research study: (1392) Jet Jeltje Westerink.....	328
Patient/Family Advisors Co-designing Healthcare Quality & Safety Improvement - From Planting Seeds to Driving Transformation: (1412) Dr. Katharina Kovacs Burns.....	330
Understanding the influence of co-design on distress, clinical decision making and disease self-management of cancer patients-as-partners: a quasi- experimental study: (2015) Zahraa Al Raychouni	331
Building bridges between people, systems and organisations: transformative system and practice improvement through in Touch Residential Aged Care Facility Pathway: (2157) David Greenfield	333
Medication Review in Patients on Polypharmacy: Insights from Integrated Care Data: (3371) Derryn Lovett.....	334
Improving Systems of Care for ST Elevation Myocardial Infarction patients through Public-Private integration for Pre-Hospital Care activation of Primary Percutaneous Coronary Intervention: (1944) Farina Mohd Salleh.....	336
Comprehensive and integrated Geriatric Care Program in a model regional teaching hospital in Taiwan: (1493) Meng-Chih Lee	337
Enhancing Early Discharge after Elective Caesarean Section: Implementing a Fast-Track Approach (ERAS) for Improved Patient Outcomes: (2923) Afnan Tawfiq Ahanfish	339
Variations in diagnostic guideline compliance for COPD: Observational study of primary care in England: (2895) Alex Bottle	340
An European Consensus on Core Measures Set for Patient Safety in Perioperative Care (SAFEST project): (1926) Carola Orrego	342
Navigating the information source landscape: a mixed methods study to assess the use of information sources by Dutch medical specialists: (2206) Floris Weller	343
Importance of Effective Hospital Stock Analysis for Healthcare Quality: ABC and VED Analysis Pharmaceutical Stock Analysis with AHP Method: A Private Hospital Example: (2958) İbrahim Halil Kayral	346
Engaging Stakeholders to Enhance patient safety by Ensuring standards in instrument Sterilisation: A National level Quality Improvement Journey in India: (3047) Jayalakshmi Jayarajan	347

Postgraduate Education in Patient Safety/Quality Improvement: Setting Expectations to Optimize Clinical Learning Environments: (2595) Robin Wagner	349
Systematic Review on the Frequency and Quality of Reporting Patient and Public Involvement in Patient Safety: (1496) Sahar Hammoud	350
Using resilience in healthcare (RiH) theory to generate reflective learning from safe care delivered to deteriorating patients: a mixed methods study : (1965) Shalini Ganasan-Ryan	351
Development of key principles for stakeholder involvement in resilient healthcare: a multi-phase, multi-method empirical study: (3281) Veslemøy Guise	353
Integration of Team Resource Management with Simulation Training to Promote Obstetric and Neonatal Safety: (2469) Wei-Ting Hsu	354
Lightning Talks	356
Patient Electronic Health Record Accessibility Optimization with root-cause analysis in a Medical Center of Taiwan--A Digital ECGs Uploading study: (2546) Chung Chieh Wen	356
EVALUATION OF HOSPITAL MANAGEMENT STRATEGIES RELATED TO PANDEMIC: (3212) Keziban AVCI	359
Identifying the prevalence and distribution of adverse drug events in children within community settings: A scoping review: (1832) Kim Sears	360
The impact of a consensus process on implementation of interventions into healthcare settings: A qualitative study: (1997) Lisa Pagano	361
Health for People and Planet: Building Bridges to a Sustainable Future: (2421) Lisa Pagano	363
Student Nurse Retention – identifying risks and best practices for retention via retrospective data analysis: (2921) Robert M. Cook	364
Promoting & Encouraging Exception Reporting (PEER) Quality Improvement Project: (1709) Schnell D'sa	366
Distilling implementation and policy strategies for sustainable healthcare innovation using policy labs: A Hospital at Home case study: (1852) Yi Feng Lai	369
Setting Standards in Long Term Care: Identifying Achievable Benchmarks of Care for Long Term Care Facilities: (1505) Maria Carolina Inacio	370
Measures or mitigating the negative effects of patient participation in patient safety: a qualitative study: (1444) Michael Van Der Voorden	371

Longitudinal relationship between Vitamin D supplementation and falls incidents in residential aged care: Implications for Falls Prevention Programs: (3010) Nasir Nasir	373
Impact of Early detection and Management of colorectal cancer to improve patient outcomes and Reducing the healthcare cost in AL-HADA Armed Forces Hospital -TAIF Region - KSA: (1738) Neda MAZEED Althkafai.....	374
Analysis of Factors Causing Low Doctor Verification Compliance based on Hospital Accreditation Standard: (3459) Nungky Nurkasih Kendrastuti	375
Improving the quality of hospital care for mothers and children in Kyrgyzstan: (2884) Nurshaim Tilenbaeva	376
Addressing patient flow issues reducing risks to patient safety and improving the quality of care: (1879) Pieter Jan Van Dam	378
The burden of potential drug-drug interactions in a large tertiary care teaching hospital in rural India and suggested interventions: (2417) Pratheesh Ravindran	379
Lunchtime	381
Lightning Talks	381
The effect of Joint Commission International accreditation on patient safety culture and outcomes: (2154) SIDIKA KAYA.....	381
Prevention of Lower Limb Deep Venous Thromboembolism and Pulmonary Embolism: Early Ambulation 24 Hours Post-Cesarean Section: (2063) Wei An Chen	382
Assessment of Antimicrobial Stewardship Program Implementation in Hermina Hospital Group, Indonesia: A Survey-Based Study: (3199) Wenny Retno SarieLestari.....	384
The role of KARS surveyors in accelerating the reduction of maternal mortalityin Indonesia: (2888) Yessy Rachmawati	385
An attempt to make 5S-KAIZEN a managerial foundationforpatient safety at government hospitals in Uganda; Needs ofparallel application ofIHI-GTT and Tracer Method to accelerate the improvement: (1118) Yujiro Handa	386
Effectiveness of PRIDE program in the restraint Patient care: (1676) YUMEI LEE	388
Optimizing Inpatient Care: Implementing an Evidence-Based Hospitalist Program: (2692) Zainab Abdullah Alzaki.....	390
Patient and family engagement in patient safety in the Eastern Mediterranean Region: A scoping review: (3255) Zhaleh Abdi.....	391

AN EVALUATION OF ACCREDITATION STANDARDS IN HEALTH SERVICES FROM THE PERSPECTIVE OF INTERNATIONAL ACCREDITATION ORGANIZATIONS: (3534) Ayşe Sibel GÜLTÜRK	392
Assessing The Implementation of The World Health Organization (WHO) Building Blocks in The Maternal Health System in Indonesia: (1251) Prita Muliarini.....	394
Gastro-Intestinal Anaesthesia Safety Checklist Audit in improving patient care at a tertiary care cancer centre (CARE): (1323) Reshma Ambulkar	396
Reduction and Control of Surgical Site Infections: A multidisciplinary approach to enhance patient safety: (3036) Saadia Pervaiz.....	398
Engaging and encouraging staff for incident reporting: Leading towards improved patient and workplace safety: (3033) Saadia Pervaiz.....	400
Language Services for Limited English Proficient Patient Quality and Safety - Dashboard and Data Driven Process Improvement: (3477) Samuel Verkhovsky	402
Evaluation of the Use of Quality Improvement Tools by Quality Managers of Hospitals in Turkey: (2973) Şenol DEMİRCİ	403
What role does compassion have on quality care ratings? A regression analysis and validation of the Sinclair Compassion Questionnaire: (1066) Shane Sinclair	404
Comparative Analysis of Patient Safety Incidents: Identifying Disparities between Units with Frequent and Sporadic Recurrence in Hospital: (2347) Shih-Chiang Hung.....	406
HOW CAN WE ENSURE PATIENT SAFETY ON NOVEL AND RISKY SURGERY?-6-YEAR EXPERIENCE OF STATUTORY INTERNAL REVIEW SYSTEM: (1802) Shin Ushiro.....	407
Afternoon	410
Short Orals.....	410
Health justice and equity of access to digital mental health services for Indigenous and ethnic minority youth – The Human Rights Framework and Obligations: (3259) Solveig Hodne Riska.....	410
Health Worker Safety Indicators during Pandemics, lessons from the COVID-19 Pandemic: (2513) Alaa A. Sayed.....	412
Mobilising staff, data, and AI to improve equity in a large UK hospital to improve quality and patient outcomes: (2778) Esther Kwong	414
Towards Improving the sexual reproductive health (SRH) and gender equity of Women Survivors of Intimate Partner in a Sample of Syrian Refugees in Jordan, a cross-sectional Study: (1788) Sarah Ahmad Aitan	416

Hospital Transition from Paper Towels to Hand Dryers: A Smart Solution: (3042) Mr. Uzair Ali Shaikh	418
Evaluation of Measures That Can Be Taken for Public Health within Framework of Climate Change Adaptation and Action Plan: Türkiye 2010-2023 Climate Change Adaptation and Action Plan Example: (1914) Didem Incegil.....	420
Reduce Paper Usage in Hospitals– A Step Towards Environmental Sustainability and Digitalization: (3444) Huma Naz	423
Environmental Impact of extensive use of Personal Protective Equipment in health care during COVID-19: (3536) Tilotma Jamwal	425
The healthcare provider views on the implementation of the national guidelines of patient safety incident reporting in a selected hospital in North West province, South Africa: (2599) Sabelile Tenza	427
Improving care for respiratory conditions, including Covid 19 in the public primary care system in Mendoza, Argentina: (2801) Ezequiel Garcia Elorrio....	428
Prescribing error patterns among junior medical officers in paediatrics: (1256) Johanna Westbrook	429
Identifying actual harm from prescribing errors in acute paediatric care: (2373) Magdalena Z Raban	431
Electronic Health Record Transition: Clinician Perspective and Patient Safety: (3565) Ozlem Eskil Cicek.....	433
Implementation of patient flow-based electronic clinical pathways (ECP) for patients presenting with HIP fractures in emergency departments: (2809) Ricardo Sampaio Paco	435
Ambulatory Medication Reconciliation: A tool to improve patient safety and minimize medication errors: (2027) Salma Al Khani	437
Insights from Adjudicated Complaints: Identifying Hot Spots and Blind Spots with HCAT: (2731) Søren Fryd Birkeland	439

Day 1 – Wednesday 25th September

Morning

Short Orals

Integrating traditional care for Indigenous women seeking antenatal care in rural Guatemala: Results from an ethnographic study : (3544) Arja Huestis Garcia

ISQUA2024-ABS-3544

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Introduction: In the Guatemalan highlands, pregnant Indigenous women in rural areas continue to suffer the highest rates of maternal morbidity and mortality. The Utz' Na'n project aims to improve their health and wellbeing by increasing the acceptability, accessibility, and quality of facility-based antenatal care (ANC) through integration of comadronas (traditional birth companions) into the public health care system and to improve Indigenous women's experience of high quality, culturally-sensitive care. The objective of this study is to identify women's definition of quality ANC and opportunities for improving ANC attendance in a medically pluralistic context, including through self-care.

Methods: A mixed-methods ethnographic research was conducted, including semi-structured key informant interviews and focus group discussions to identify barriers and facilitators and health care seeking pathways to ANC related to women's experience of care, health decision making autonomy, gender-based violence, and food insecurity. In addition, surveys covering the socioeconomic characteristics of households and the knowledge, attitudes and practice of healthcare staff, were administered online to primary healthcare workers (HCWs) and in-person with comadronas and pregnant Indigenous women. The data collection protocols and tools utilized (REDCap and Kobo) were

piloted, revised and approved by the IRB of the Centro de Estudios en Salud of the Universidad del Valle de Guatemala. STATA and Excel were used for univariate analysis, Dedoose for coding qualitative data, and process maps were drafted to describe healthcare seeking pathways.

Results: The study surveyed and interviewed 317 pregnant Indigenous women (over age 18), 104 comadronas, and 906 HCWs. Fifty percent of women visited both a comadrona and a public HCW throughout their pregnancy, attending on average 8 ANC sessions between both types of providers. Sixteen percent of women initially confirmed their pregnancy and had their first ANC visit with their comadrona. Not realizing they were pregnant, previous pregnancy experiences, fear of vaccinations, and financial and geographic constraints were key reasons for delayed use of facility-based ANC. Indigenous women expressed high trust in public healthcare ANC staff (95%) and comadronas (98%). Public health services met the women's expectations for provision of nutritional supplements, clinical tests, vaccines, and attention to high risk-cases. Women felt that comadronas provide more holistic and culturally-sensitive counseling and guidance for self-care. At the same time, the survey of HCWs found that over two-thirds of them did not receive training in culturally pertinent, respectful care, indicating therefore a gap in providing culturally responsive care at public health facilities.

Conclusion: This study provides critical insight on ANC seeking pathways of Indigenous women in rural areas, the essential role of traditional birth companions, and entry points to facilitate access to respectful, culturally sensitive pregnancy care. Integrating comadronas into a collaborative, community-engaged model represents a sustainable approach to improved person-centered maternal health care and equitable access to services. The results suggest that a transformative shift towards a more blended, plurimedical model of ANC that meets the needs of Indigenous women has the potential to improve the experience of care and help reduce poor maternal health outcomes.

Disclosure of Interest: None Declared

Supporting Quality Mental Health Services for Adolescent Depression in Primary Care: A Learning System Approach: (1536) Diana Sarakbi

ISQUA2024-ABS-1536

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Introduction: The World Health Organization suggests that depression is one of the leading causes of illness and disability for adolescents [1]. While primary care providers play a key role in the early detection of adolescent depression, the literature highlights gaps in the quality of care for this population, including missed diagnosis, inadequate treatment, and lack of follow-up care [2]. Providing

quality mental health services in primary care, referred to as integrated care, requires a common framework. The Practice Integration Profile (PIP), a valid and reliable survey, measures the level of integration of mental health services in primary care with six domains: case identification, workflow, clinical services, workspace, shared care, and patient engagement and retention [3]. Given the health reform in Ontario Canada, there was a policy window to research the governmental strategies needed to support quality integrated care, represented by the PIP domains, within a learning system framework. This framework can be used by primary care practices in regional networks, such as Ontario Health Teams (OHTs), to continuously identify systemic barriers and strategies to support quality integrated care for adolescent depression based on real-world data. Therefore, the aim of this study was to answer the following research question: How can OHTs help identify the governmental strategies needed to support quality integrated care for adolescent depression, represented by the PIP domains, using real-world data?

Methods: We employed a descriptive, multi-case study design. This study was approved by the Queen's University Health Sciences and Affiliated Hospitals Research Ethics Board. Two OHTs, regional networks designed to support integrated care, participated in this study. Data collection consisted of (1) the administration of the PIP (V1.0) to the team-based primary care services within each OHT to obtain a baseline measure on the PIP domains, and (2) focus groups to inform the strategies needed to support the PIP domains for adolescent depression within a learning system framework. Focus group participants included administrators, primary care and mental health clinicians, and a patient partner. The survey and focus group results were analyzed together to respond to the research question. The PIP median total scores were compared to the number of statements by PIP domain. The PIP mean scores at the item-level were also compared to relevant quotes from the focus groups to determine whether they confirmed, complemented, or conflicted with the findings.

Results: The team-based primary care practices in the OHTs had a median PIP score of 69 out of 100. Among the PIP domains, the lowest median score out of 100 was case identification (50), and the highest one was workspace (100). These results were compared to the scores obtained in the PIP validation study conducted in the United States [3]. The mean scores out of 100 of the practices in the OHTs (69) were slightly higher than the ones in the PIP validation study (60). However, the ranking of the mean domain scores from lowest to highest was about the same between the two groups, suggesting there could be similar systemic barriers in applying the PIP domains which were further explored for OHTs during the focus groups. The focus groups generated 180 statements mapped to the PIP domains where workflow had the highest number of coded statements (n=59, 32.8%) followed by case identification (n=37, 20.6%). While all the primary care practices in the OHTs had mental health clinicians on-site, the findings highlighted systemic barriers with adhering to the integrated care pathway for adolescent depression. These include limited access to mental health expertise for assessment and diagnosis, long wait times for treatment, and shortages of clinicians trained in evidence-based behavioral therapies. These challenges contributed to the reliance on antidepressants as the first line of treatment due to their accessibility rather than evidence-based guidelines. Potential strategies were offered to help address these systemic barriers with support from targeted indicators.

Conclusion: This study adapted a learning system framework to continuously identify the systemic barriers and the governmental strategies needed to support quality integrated care for adolescent depression based on the experiences of two OHTs. Primary care practices, within regional networks such as OHTs, can build upon these results by forming a learning system adapted to their local context.

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Disclosure of Interest: None Declared

"It can be a lonely job": Role experiences of paediatric care coordinators working in rural Australia: (2787) Yvonne Zurynski

ISQUA2024-ABS-2787

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Introduction: Implementation of integrated care for children living with medical complexity (CMC) and their families requires the establishment and support of new roles in the health system. The Rural Kids Guided Personalised Service (RuralKidsGPS) is a paediatric care coordination service implemented in four Local Health Districts (LHDs) in New South Wales, Australia since 2022. RuralKidsGPS is reliant on nurse Paediatric Care Coordinators (PCCs) who provide family-centred care, shared care plans, and link multiple clinical teams looking after the CMC. At implementation, care coordination services were at different levels of maturity - one LHD had an established service since 2017, another had a service which had been discontinued and re-instated and two LHDs were starting anew. Understanding the experiences of PCCs in these contexts is crucial to effective integrated care delivery and model sustainability.

Methods: All PCCs were invited to participate in one-on-one qualitative semi-structured interviews at 6 and 12 months after beginning their roles. Ten interviews were conducted, audio-recorded and transcribed verbatim. Transcripts were analysed by two experienced researchers who identified key themes whilst undertaking an inductive thematic analysis with a focus on how PCCs experienced providing care coordination for CMC and their families.

Results: PCCs felt very supported by their local line managers, however, not having direct access to other PCC colleagues was described as "*isolating*" and "*lonely*". It is not unusual for two PCCs working

in the same LHD to be located >200 kilometres apart with limited face to face contact. PCCs talked about having less contact with families than they expected with the role centring on organising, seeking, and connecting needed services. The roles also varied across regions and some PCCs also provided clinical care as part of their role. Capacity was discussed by all PCCs most of whom held part-time roles and worried about supporting families on non-work days. In five out of six interviews, PCCs talked about being available on days off as “*there is no one else to help these families*”. PCCs had been employed under standard nurse position descriptions which did not take the role complexity of PCCs into consideration. Furthermore, PCCs raised the need for greater role clarity, a competency framework and a more realistic allocation of time to the role.

Significant emotional and cognitive toll was described by PCCs during care provision for highly complex medical needs, in the context of challenging psych-socio-economic family challenges. PCCs displayed resilience and felt that they were making a real difference in the care of CMCs and their families: “*The role is very heavy at times, heavy on your heart and heavy in the workload, but it is also very rewarding....*”

The importance of professional networks or a “buddy-system” was a theme underlined by all PCCs. They felt that resources were needed to support networks and PCC communities of practice to ensure these new roles are supported and sustained.

Conclusion: The PCC role is complex, varied and nuanced to the local context and CMC needs. The role is valued by PCCs and they make a real difference to the lives of families with CMC living in rural Australia. Organisations implementing innovative models of care must consider adequate support for the key workforce working in these new models of care. A community of practice involving all PCCs in NSW has been established and is one way of supporting PCCs in their important and challenging roles when providing integrated care.

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Disclosure of Interest: None Declared

The need for early intervention to meet the unmet biopsychosocial needs of children with common chronic illness: (1978) Raghu Lingam

ISQUA2024-ABS-1978

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Introduction: Approximately 20% of childhood deaths across England, the USA, Australia, and New Zealand are thought to be preventable through better clinical care and self-management.(1) The marked decrease in child mortality over the last century, through improvements in public health and paediatrics, has been mirrored by an increase in childhood chronic illness and disability.(2, 3) Chronic conditions affect at least 1 in 5 children and account for 79% of all disability-adjusted life years lost among children aged 1–14 years across Europe.(2, 4, 5). We assessed the biopsychosocial needs and key health drivers among children living with a common chronic illness, and outline a novel model of care the Children and Young People's Health Partnership (CYPHP) to address these needs.

Methods: Cross-sectional data were analysed from a large population sample of children from South London with asthma, eczema, or constipation, as exemplar tracer conditions of a new integrated care service, CYPHP. Descriptive and regression analyses, accounting for socio-demographic factors, investigated social needs, psychosocial outcomes, and quality of life associated with poor symptom control.

Results: Among 7779 children, 4371 children (56%) had at least 1 uncontrolled physical health condition. Across the three domains of physical health, mental health, and social needs, 77.5% of children (n=4304/5554) aged 4-15 years had at least one unmet need, while 16.3% of children had three unmet needs. Children from the most socio-economically disadvantaged quintile had a 20% increased risk of at least one poorly controlled physical condition (RR=1.20, 95% CI: 1.11 to 1.31, $p<0.001$) compared with those from the least disadvantaged quintile. There was an 85% increased risk of clinically important mental health needs among children with uncontrolled asthma (RR=1.85, 95%CI: 1.65 to 2.07, $p<.001$); 57% for active constipation (RR=1.57, 95% CI: 1.12 to 2.20, $p<.01$); and 39% for uncontrolled eczema (RR=1.39, 95%CI: 1.24 to 1.56, $p<.001$). Health-related quality of life was associated with poor symptom control.

Conclusion: There is a large burden of unmet biopsychosocial needs among children with chronic illness, signalling an urgent need for prevention, early intervention, and integrated biopsychosocial care. The overlap between the physical, psychological, and social needs of children highlights the need for a comprehensive health systems response to anticipate and meet needs, reduce health inequalities, and improve child health outcomes.(3, 6)The CYPHP Model consisting of early intervention and integrated biopsychosocial care through primary care. nurse led and community-based services has the potential to meet these increased needs.

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Disclosure of Interest: None Declared

Re-thinking integrated care for the most vulnerable people using Community Paramedics: (1845) Peter Hibbert

ISQUA2024-ABS-1845

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Introduction: Across the world, health systems are struggling to deliver high quality integrated community care to vulnerable populations, such as aged persons and indigenous, particularly in rural areas. The South Australian Ambulance Service (SAAS) is delivering a Community Paramedic (CP) Program in two rural areas, >300 kms from a major city. The aim of the CP Program is to provide skilled clinicians to regional communities who co-ordinate community care options that link vulnerable clients with appropriate care teams, such as palliative care, mental health teams or complex care teams. The CPs treat patients in their usual place of residence and provide preventative health screening and referrals in the community to avoid medical conditions from developing into high acuity situations that require urgent medical attention. The objective of this project was to undertake a qualitative evaluation of the CP Program.

Methods: This evaluation interviewed a total of 54 people - 18 CP clients and 36 stakeholders. Other data sources included the CP service databases and two audit sources. The study setting was the Outer

Limestone Coast Region and Ceduna of South Australia. Interview transcripts and notes from observations were inductively and thematically analysed independently and iteratively. Ethics approvals were obtained from SA Department for Health and Wellbeing Human Research Ethics Committee (HREC/20/SAH/84) and the Aboriginal Health Council of South Australia's Aboriginal Health Research Ethics Committee (AHREC) (04-21-917).

Results: One of the goals of the CP Program was that it would impact on reduced health service demand by reducing ED and GP presentations and hospital admissions. However, the impact of the CPs was not a one-way effect, i.e., a reduction in health service demand. Their impact is more dynamic and related to highly vulnerable patients receiving more appropriate health care. Their interventions can result in more emergency department and pharmacy demand as they are frequently referring, encouraging and brokering patients who require care to the health services, but who were unlikely to seek this care without the CPs encouragement. For example, the regular health checks that the CPs undertake are likely to result in considerably more medication being appropriately prescribed.

There were six inter-related success factors for the CP Program:

- The design is responsive to the local community's needs
- Focus on the most vulnerable and the gaps in health care
- Forming informal partnerships with local health and social service providers
- Skill sets
- Outreach
- Trust

Image:

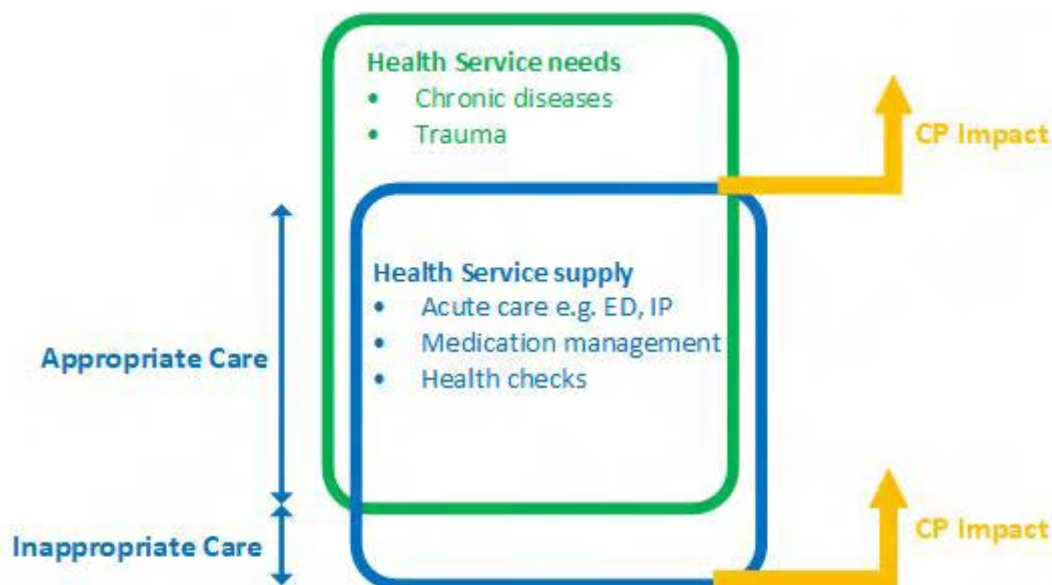


Figure 1: A model of health service needs and supply against appropriate care.
 Modified from Figure 1.1: The paradigm of need, demand and use of blood in
 WHO: Towards Self-Sufficiency in Safe Blood and Blood Products based on
 Voluntary Non-Remunerated Donation. Global Status 2013

Conclusion: Programs delivering integrated care in the community may need to re-frame their aims from reducing demand to delivering more appropriate care to vulnerable patients (Figure 1). The CPs increase appropriate care (such as provision of medication and health checks, emergency care for prisoners) to patients that for a variety of reasons may not seek care or have access to timely care.

Disclosure of Interest: None Declared

Patient engagement for patient safety: results of a Belgian survey: (1861) Quentin Schoonvaere

ISQUA2024-ABS-1861

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Introduction: The objective of this article is to assess the ability of Belgian French-speaking patients to report adverse events using a PRIM questionnaire (Patient-Reported Incident Measures). The research question is whether we can rely on patients' reports of adverse events?

To address this question, we contextualized our adverse event reporting rate with the findings of other surveys. Secondly, we assessed the association between the reporting of adverse events and factors that could influence patients. We identified determinants specific to healthcare institutions, including

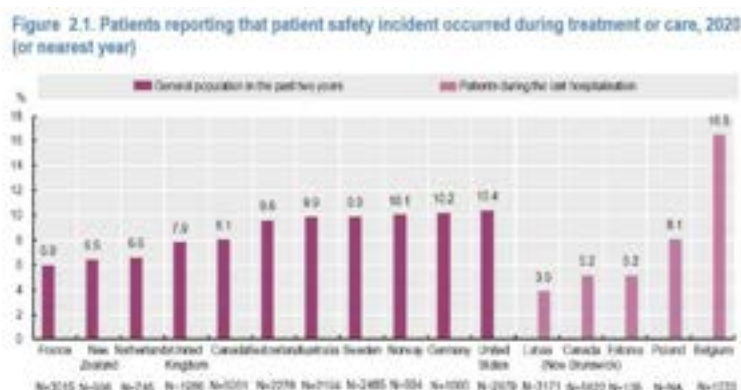
the level of maturity in an institution's safety culture and the organization of care processes. Studies suggest that various individual factors can impact the occurrence of adverse events. Older individuals, an extended duration of stay, or poorer health are correlated with an increased risk of experiencing adverse events [1-2]. Hence, it is anticipated that patients identifying deficiencies in organizational factors, along with those possessing individual risk factors (such as age, health status, and length of stay), will be more inclined to report adverse events.

Methods: The questionnaire used is the result of a collaborative effort involving experts from OECD member countries and patient representatives. The French translation of the questionnaire was conducted by PAQS in collaboration with professionals and a panel of patients. The process of identifying and contacting patients was carried out in collaboration with 3 Belgian's insurance organizations. They identified, in their databases, patients hospitalized in the third month preceding the extraction date. The survey was operationalized online. Three insurance organizations sent 21,902 emails to their members. The number of survey logins amounted to 2,037, with a login rate of 9.3% and a response rate of 5% relative to the emails sent. To test whether individual and organizational characteristics are associated with the reporting of an adverse event, we used a chi-square independence test.

Results: This survey shows that 16.5% of patients residing in French-speaking Belgium reported at least one adverse event. This result is the highest among OECD countries that have operationalized this survey [3]

The study also indicates that individuals reporting poorer health or those with longer stays are more likely to report an adverse event. Further investigations focus on identifying weaknesses within care processes, particularly in communication among various stakeholders. A strong correlation is observed between patients' perception of such weaknesses in communication and their reporting of adverse events.

Image:



Conclusion: Our findings allow for a positive response to our research question. In light of other results, it is evident that our adverse event reporting rate is high but may be overestimated. This is particularly likely, considering that respondents who made the effort to participate likely experienced safety concerns during their hospitalization. We also highlighted a significant correlation between adverse event reporting and organizational and individual variables that may influence this reporting.

The results of this study highlight opportunities for improvement, not only in terms of patient safety but also in the management of adverse events. Integrating a PRIM tool into the strategy is rightfully positioned to enhance the quality and safety of care in the hospital, complementing other tools and sources of information on adverse events.

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Disclosure of Interest: None Declared

Effect of pressure injury reduction project utilizing three types of continuity of care on pressure injury incidence rates in a general hospital: (3502) Suryang Seo

ISQUA2024-ABS-3502

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Introduction: Pressure injuries (PI) pose a significant threat to patient health, quality of life, and healthcare costs. It serves as one of the key clinical indicators of patient safety and healthcare quality in a hospital. To prevent and manage PIs, hospitals engage in activities focused on patient treatment, educate staff and caregivers on the importance and methods of prevention and management, and implement systems designed for effective PI management. The aim of this project was to reduce the

incidence of PIs utilizing three aspects of Continuity of Care in an internal medicine ward with 42-beds in a general hospital with 765-beds in South Korea.

Methods: This uncontrolled before-and-after study investigated the impact of the PI reduction project on PI incidence in an Internal Medicine Gastroenterology inpatient ward. PI incidence was calculated as the number of patients admitted to the ward who developed a new pressure injury divided by 1,000 patient days. This study measured PI incidence density before (January 2020 to January 2022) and after the project (February 2022 to December 2023), consisting of informational continuity, relational continuity, and management continuity.

- First, relational continuity, which was considered the most important aspect of continuity, was implemented by scheduling a daytime 'hygiene-nurse' responsible for basic nursing care of patients wearing diapers or receiving tube feeding, etc. from one-time duty scheduling to at least 3 consecutive duty scheduling per week by 'hygiene-nurse' who voluntarily applied for the month.

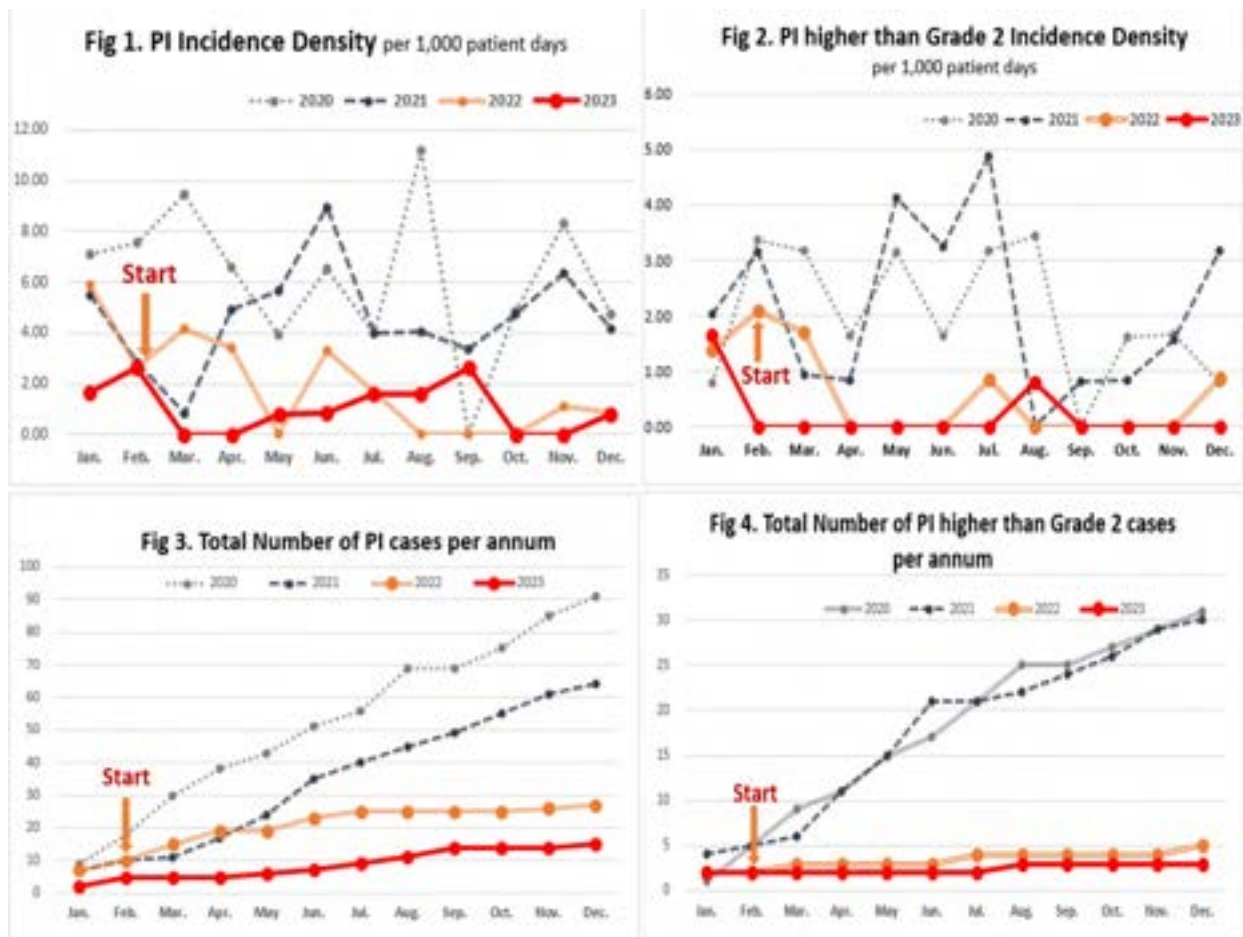
- Second, informational continuity was conducted by posting the information needed for each patient's PI care, such as how to perform PI site dressing, what postures to consider, and what ointment to apply at designated times on the patient's bedside.

- Third, management continuity was applied by adjusting the worklist of hygiene-nurses towards consistency of care and flexibility of each patient.

As PI incidence density can be affected by the severity and factors of patients hospitalized at a specific time, data were collected monthly on the number of patients who needed PI prevention and management, including patients at PI risk and non-PI risk patients with PI(s). Data on PI incidence density and the incidence density of PI higher than Grade 2, including Grade 3 PI, 4 PI, Unstageable PI, and Deep Tissue PI, were collected every month and analyzed using Microsoft Excel and Python 3.10 for descriptive statistics and independent t-test.

Results: This study observed 32,961 patient days before and 29,843 patient days after the intervention. The mean PI incidence density decreased significantly from 5.42 (standard deviation, SD 2.53) to 1.30 (SD 1.30) post-intervention ($p < .001$). And the mean incidence density in PI higher than grade 2 also decreased from 2.06 (SD 1.32) to 0.35 (SD 0.65) after the intervention ($p < .001$). Figure 1 and 2 show the monthly incidence density of PI cases per 1,000 patient days. The total number of PI incidences and PI higher than grade 2 were significantly reduced after the project (Figure 3 and 4). In addition, the number of patients who required PI prevention and management before and after the project was statistically insignificant ($p = .74$).

Image:



Conclusion: The project effectively reduced the incidence of PIs, suggesting the value of integrating continuity of care aspects in PI prevention and management strategies. Further research is needed to apply continuity of care in PI prevention and management in various medical settings, considering the severity and factors of patients.

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Disclosure of Interest: None Declared

Patient as Observer Intervention to Increase Hand Hygiene Adherence among Healthcare Workers in the Ambulatory Setting: (2873) Vickly LoPachin

ISQUA2024-ABS-2873

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Introduction: Hand hygiene is the most cost effective method to prevent transmission of multi-drug resistant organisms (MDRO). However, monitoring of adherence to the World Health Organization (WHO) Five Moments for hand hygiene by healthcare workers (HCW) is challenging. We assessed the efficacy of the patient-as-observer hand hygiene program on adherence to hand hygiene recommendations before and after patient interaction in the ambulatory setting.

Methods: 204 ambulatory clinics affiliated with a large urban healthcare system in New York City, NY, USA are included in this retrospective analysis of a quality improvement initiative that took place from May 2019 until December 2023. Upon arrival to their appointment, patients are asked to complete a hand hygiene survey, either via a paper form or through a QR code with a link to the survey. The survey asks if their provider, nurse, or other healthcare worker (HCW) performed hand hygiene before and after their encounter. Patients completed the survey in real-time, with automatic data entry via the QR code or by a paper form that was submitted at the end of each visit to front desk staff that was then entered into the database. Data are aggregated on a monthly basis and are available through a dashboard on the organization's intranet. Differences in adherence rates were analyzed using chi-square. A p-value <0.05 was considered statistically significant.

Results: A total of 303,589 observations were recorded over the study period, with 297,056 being paper surveys and 6,533 being electronic surveys via the QR code. In 2019, overall hand hygiene compliance was 86%, with compliance before patient encounters at 89% and after patient encounters at 83%. In 2020, overall compliance was statistically higher at 91%, with a greater than 91% compliance rate sustained for the subsequent 3 years ($p < 0.001$). At baseline, providers, nurses, and other HCWs were more likely to have been observed to perform hand hygiene before an encounter than after the encounter ($p < 0.001$). Other HCWs had a statistically higher adherence rate (87% vs. 86%; $p < 0.001$) than providers at baseline but all categories had similar adherence rates by 2020 which was maintained through 2023.

Conclusion: In a large urban healthcare system, a patient-as-observer approach to hand hygiene adherence has been shown to be efficacious and sustainable. This method engages the patients to participate in their care. The ease of implementation and the use of both the paper survey and QR code demonstrate that the operationalization of the program can be done with or without technology, making it broadly applicable to all ambulatory practices. Future work will include the encouragement of the use of the QR code to alleviate the need for data entry.

Disclosure of Interest: None Declared

Mutual Healing Program®: Helping patients, their families and healthcare workers heal together after unexpected medical harm: (1638) Wendy Nicklin

ISQUA2024-ABS-1638

D. L. Aubin ¹, W. Nicklin ^{2,*} on behalf of Patients for Patient Safety Canada Mutual Healing Working Group

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Introduction: Patients, their families and healthcare workers (HCWs) can experience psychological trauma as an outcome of a medical error resulting in unexpected harm to the patient. For patients and their families ('patients'), medical errors can have tremendous physical, emotional and psychological impacts.^{1,2} At the same time, unexpected patient harm is known to be devastating and distressful to HCWs.³⁻⁵

There is growing recognition that there is insufficient emotional support for both patients and HCWs after patient harm. Although there is some information in the form of case studies⁶, incidental findings and testimonials that indicate there might be merit in bringing together patients and HCWs to heal emotionally after unexpected harm, there have been no formal studies on this topic, nor evidence of any existing programs that take this approach. Our study aimed to investigate whether purposeful conversations between patients and HCWs might promote mutual healing and wellness after a medical error. We explored with patients and HCWs the value, barriers and effectiveness of mutual healing. If the results supported our theory, our final objective was to put the theory into practice and pilot a Mutual Healing Program© in collaboration with Patients for Patient Safety Canada (PFPSC), which had in the meantime also identified the potential for patients healing through conversations with healthcare workers.

Methods: Phase I: We used a patient-oriented research approach with constructive grounded theory methodology. We conducted 22 interviews with concurrent data collection and analysis. With our findings, we created a framework of the communication process between patients and HCWs.

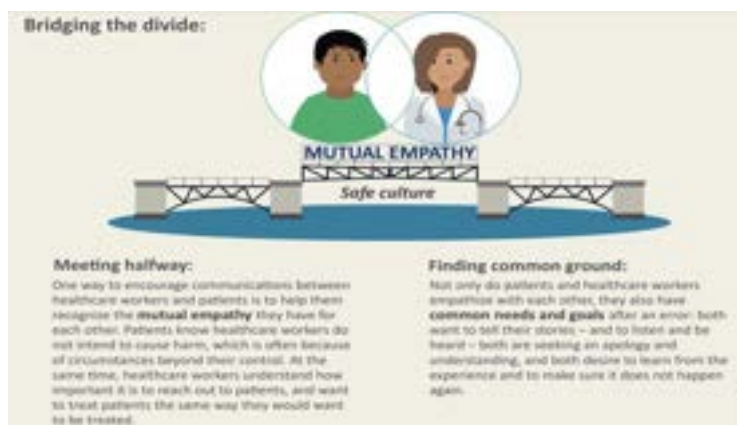
Phase II: Based on the results of Phase I and guided by implementation science, we created a step-by-step guide to implement a Mutual Healing Program© in collaboration with PFPSC and Healthcare Excellence Canada (HEC).

Phase III: We are currently piloting the Mutual Healing Program© in collaboration with PFPSC at up to three organizations in Canada over the next two years.

Results: Our Phase I findings⁷ suggest that, after a medical error causing harm, both patients and HCWs have feelings of empathy and respect towards each other that often goes unrecognised. Barriers to communication for patients were related to their perception that HCWs did not care about them, showed no remorse nor admitted to the error. For HCWs, communication barriers were related to feelings of blame or shame, and fear of conflict with the patient, or professional and legal consequences. Early results from Phase II indicate that institutional and resource barriers play a significant role in the implementation of a Mutual Healing Program©.

Our resulting framework suggests that an open and purposeful conversation after disclosure, when both parties are ready, and before increased emotional suffering might provide an opportunity to bridge the barriers to find common ground, to gain perspective of each other's experience, and strive to recognise each other's humanity (see attached).

Image:



Conclusion: Our findings from Phase I indicate that further exploration of the value of mutual healing conversations is warranted. The step-by-step guidelines developed in collaboration with PFPSC and healthcare workers are ready to be tested. The pilot testing of the Mutual Healing Program® will assess the effectiveness of the guidelines and the impact and feasibility of this approach to healing.

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Disclosure of Interest: None Declared

Improving the quality of antenatal care (ANC) and postnatal care (PNC) services by strengthening supportive supervision of service providers at private health facilities in urban slums of Bangladesh: (2986) Anjuman Begum

ISQUA2024-ABS-2986

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Introduction: In Bangladesh, pregnant women in urban slums have limited access to and knowledge of quality health services. While the proportion of women receiving quality ANC increased from 18% to 21% between 2017 and 2022^[i], these numbers are low and faster progress is needed.

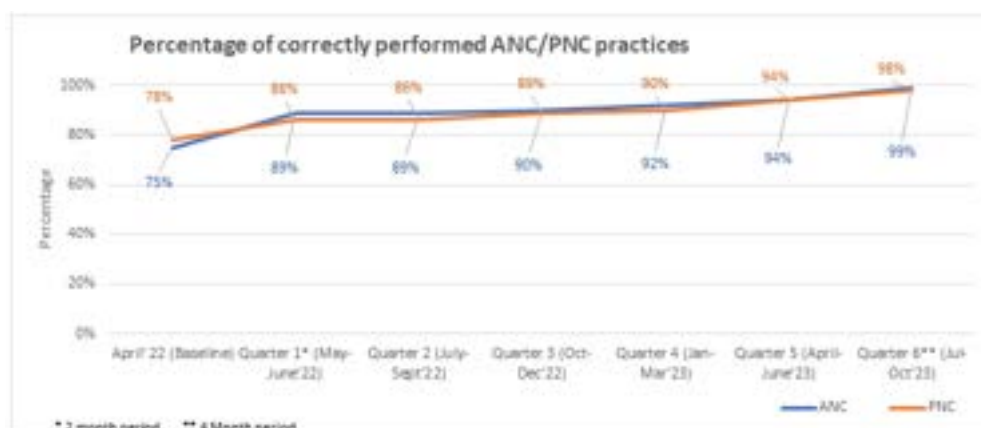
The Healthy Women, Healthy Families (HWHF) project, implemented by Management Sciences for Health (MSH), BRAC, Population Council, and Scope, is testing group ANC-PNC, an innovative service delivery model, at two private, non-profit primary health facilities, BRAC Maternity Centers (BMCs). HWHF aims to improve access to quality maternal & newborn health and family planning (MNH/FP) services for young first-time parents in the urban slums of Tongi. As clinical counseling skills are essential in ensuring quality of care, the HWHF project aims to strengthen the capacity of service providers. Providing service providers with continuous supportive supervision is a key strategy to ensure the quality of MNH/FP services.

Methods: Supportive supervision helps staff continuously improve their work performance using supervisory visits to grow the technical knowledge and skills competencies of health care providers. Supervision encourages open communication and utilizes team building approaches that facilitate problem-solving. The HWHF project team provides each facility with 24 visits in a two-month timeframe to ensure that each service provider receives at least one supportive supervision visit.

The HWHF project adapted supportive supervision checklists from government tools to identify gaps in MNCH/FP competencies on respectful maternal care, physical examination, prescribing and documenting necessary supplements, and recording patient history, obstetrics information, and vital signs. Service providers providing ANC and PNC check-ups and services are observed, and information is collected using paper HWHF supervision checklists. Following the supervision visits, composite supervision scores are calculated using an Excel template and areas for improvement and feedback are provided to the service providers through demonstrations, group discussions, and on-the-job training.

Results: Data from the supportive supervision visits show improvements in the quality of ANC and PNC services. At baseline in April 2022, composite scores indicated that 75% of providers correctly performed key ANC practices (history taking, physical examination, lab-test and medicine distribution), and 78% provided key PNC services (counseling for family planning). After 18 months of the intervention (May 2022-October 2023), the average scores increased to 92% for ANC and 91% for PNC. The data below shows continuous improvement of quality ANC/PNC services in the last 11 months due to regular monitoring and supportive supervision. It was also observed that supportive supervision increases the confidence of service providers.

Image:



Conclusion: Supportive supervision improved the quality of health services at two health facility sites in the urban slums of Bangladesh. Engaging facility leadership and conducting continuous supportive supervision helped private-sector providers to address gaps in providing quality ANC and PNC services and establish a culture of continuous improvement. Supportive supervision also increased the confidence of the service providers through targeted support, mentorship, and follow-through on action items. The potential to improve care in other similar settings should be explored.

References: [i] Bangladesh Demographic & Health Survey (BDHS) 2022–23; Page 45. (<https://dhsprogram.com/pubs/pdf/PR148/PR148.pdf>)

Disclosure of Interest: None Declared

Promoting Factual, Affirming, Informative and Respectful (FAIR) Documentation in the EHR to Reduce Bias and Improve Patient Care: (3240) Carol R. Horowitz

ISQUA2024-ABS-3240

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Introduction: Reducing bias and health disparities in patient care and outcomes is a top priority for Mount Sinai Health System (MSHS), an 8 hospital, 400+ ambulatory clinic health system located in New York. A change in policy in the United States has increased patient access to medical records, and notes are no longer just for members of a patient’s care team but are now available to patients. Expanded access to patient notes can enhance the patient/provider relationships and care. However, the use of biased language and negative descriptors can adversely impact patient care by reinforcing harmful stereotypes, harming a patients’ mental health and well-being, and inappropriately biasing other members of the care team.

Methods: As part of a MSHS commitment to advancing health equity, in June 2022, the FAIR (Factual, Affirming, Informative and Respectful) Documentation Workgroup (WG) was formed. The WG is multidisciplinary and co-led by the Office of the Chief Medical Officer and the Institute for Health Equity Research (IHER) and includes clinicians, trainees, researchers, patients, advocates, administrators and health systems leaders. Our intent is to reduce negative descriptors in patient medical records and promote the use of positive and affirming language across MSHS.

The work started with a literature review on biased and stigmatizing language in the electronic health record (EHR). We then used a modified Delphi technique, with input from clinical and non-clinical WG members and patients, to identify an initial list of 19 *Never Words* (words we do not want used nor documented in the EHR). For educational purposes, the words were then put into 1 of 4 categories: *Discrediting*, *Judgmental*, *Stigmatizing/Labeling* or *Stereotyping*. The EHRs for patients seen in the Emergency Department (ED) between January 1, 2022 and March 31, 2023 were reviewed to determine the frequency and characteristics associated with *Never Words*, and assessed the feasibility of creating an algorithm to detect biased language in the EHR using natural language processing. We employed a phased approach to build a language model that could reliably detect biased language.

Results: Preliminary analyses showed a 100% match between the algorithm and independent reviewers for 18 of the 19 *Never Words*, except for the word “Claimed” which had an 80% match. In our review of 1,248,074 ED notes, prevalence of *Never Words* was low, occurring in less than 0.5% of notes in the review period. Attending Physicians were more likely to document these *Never Words* compared to Residents, Nurses or Advance Practice Providers. The word “Claims” was the most commonly recorded *Never Word*, followed by drug seeking, toxic habits, belligerent and hostile.

Conclusion: Our study shows that an algorithm could be built and trained to detect biased language in ED notes, and that the *Never Words* we identified are not commonly used in the ED charts reviewed. Our next steps are to refine the algorithm to detect negative descriptors and stigmatizing language that is not captured in a single word, and take the context of words into account. We will also implement an awareness and educational campaign, to ensure that health care teams understand the importance of always documenting in a factual, respectful, informative and affirming manner. We also found that a diverse clinical and administrative team are committed to strive for documentation that reduces bias and supports the delivery of safe, high-quality care.

Disclosure of Interest: None Declared

What matters the most for the quality of inpatient treatment and care experience?: (3061) Gang Chen

ISQUA2024-ABS-3061

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Introduction: High-quality care is essential to the increasing demand and health services utilisation as well as the improvement of health outcomes. It is increasingly important to gain patients' perspectives on health care quality. The Australian Hospital Patient Experience Question Set (AHPEQS) is a 12-item tool that has been developed to assess the quality of patients' experiences. This study aims to understand what matters the most for the inpatient treatment and care experience perceived by the Australian population based on items included in the AHPEQS.

Methods: A discrete choice experiment (DCE) was designed and administrated online to elicit consumers' preferences on inpatient treatment and care experience. The DCE consists of 9 attributes (items) from the AHPEQS (with the exclusion of two optional and one overall quality items) and each item was described using 4 or 5 response levels. Respondents were recruited by an online panel provider (Dynata) in Australia. The DCE data were analysed using a conditional logit model under the random utility framework. The study has been approved by the Monash University Human Research Ethics Committee, Monash University, Australia (Project ID: 31834).

Results: Data from a total of 1036 respondents were included in the analyses. They had a mean (range) age of 47 (18-92) years old and 51% were females. Around half of the respondents had inpatient experience in the past five years by the time of the survey; among them, 86% rated their most recent hospital admission experience to be Good or Very Good. The DCE data analyses found that all nine attributes statistically and significantly influence inpatient treatment and care experience, albeit their relative importance varied. A scoring algorithm (value set) was developed based on DCE estimates to create a preference-weighted aggregate score for the responses to the nine AHPEQS items.

Conclusion: The AHPEQS adopts an equal weight to its items in understanding patients' experiences. This study provides important insights into the general public's perceptions of the relative importance of different treatment and care experiences. The preference-weighted value set represents how society values different inpatient treatment and care experiences and could be used to facilitate hospital performance evaluation.

Disclosure of Interest: None Declared

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Introduction: As the healthcare industry continually strives for excellence in service delivery, this research aims to explain how the integration of circular economy practices can improve the overall quality of healthcare. This research aims, firstly, to evaluate current quality standards and improvement initiatives in healthcare, and secondly, to depict how circular economy principles can be strategically incorporated to improve these quality measures. Achieving a harmonious balance between quality and circularity not only ensures better patient outcomes but also promotes environmentally responsible healthcare practices.

Methods: The research methodology covers a comprehensive review of existing literature on quality improvement in healthcare and circular economy applications across various sectors.

Results: The current literature review on quality improvement in healthcare and circular economy applications in various sectors is summarized in Table.1. Advancements in biotechnology and life sciences offer new possibilities for integrating the principles of the circular economy into laboratory studies, biosecurity applications, and, more broadly, the field of bioeconomy. This integration not only extends beyond reducing environmental impacts but also provides cost savings and sustainability advantages. Circular economy aims to optimize resource management in laboratories and healthcare facilities. In this context, it encompasses elements such as Waste Management and Quality Control, Reusable Laboratory Materials, Green Chemistry Practices, Quality Management Systems and Continuous Improvement, as well as Material Tracking and the Analytics Cycle. The goal is to maintain materials, components, and products at their highest value and utility, ensuring their continuous and efficient use. A bio-based circular economy provides solutions to meet the demands arising from a growing human population, opens up new opportunities in the field of healthcare, and introduces novel concepts for ensuring the health of humans, animals, and plants in the future (Liguori et al, 2016, Negi et al 2021. Sun, 2021).

Image:

No.	Author	Contribution	No.	Writer	Contribution
1	Stahel and Genevieve Roday-Mulvey, 2016	The idea of using human power instead of energy gave rise to the concept of circular economy (CE), which was first presented 40 years ago by Stahel and Genevieve Roday-Mulvey in a report to the European commission. The circular economy was introduced by Walter Stahel, who has been working on this idea for over 40 years, with an emphasis on industrial economics.	8	Allen-Duck et al., 2017	A culture of excellence is represented in the evaluation and delivery of safe, effective care that leads to optimal or desired health. This is what is meant by healthcare quality.
2	Korhonen et al., 2018	Unlike the traditional, linear "take-make-dispose" model, the circular economy reduces environmental damage while creating new business opportunities.	9	Schuster et al., 2000	As important developments in creating Quality while designing the New Health System for the 21st Century, it is stated that care processes must be carefully designed to achieve high levels of safety, effectiveness, patient-centeredness, timeliness, efficiency and equity.
3	Habladakis et al., 2004	The concept of a circular economy, which aims to promote a sustainable lifestyle that produces and consumes resources, meaning that resources are used more efficiently and retained in the economy for as long as possible, is gaining global attention.	10	Chaha, 2007	In the model developed to measure quality in health institutions, Concepts such as conscientiousness, reliability, responsiveness, assurance, courtesy and empathy are included.
4	Alshemari et al., 2020	The main goals of the circular economy are to accelerate and promote increasing sustainability.	11	Kapral, 2014	When the sub-dimensions of quality in health services are examined, intangible quality dimensions such as assurance, kindness and empathy are among the elements that hospital managers should focus on from different aspects, such as patient-oriented improvements in the physical infrastructures of institutions.
5	Reike et al., 2018	Circular economies prioritize social, economic and environmental values in every aspect of the system. It is defined as "an economic system that accepts the reuse of products and materials and the protection of natural resources as its starting point."	12	Phil Hartill, Robert Hendler, 2015	Leadership, measurement, reliability, practitioner skills, and the market are key concepts that successful healthcare companies will understand, recognize, and implement.
6	Donabedian, 1988	"Although we know a lot about assessing quality, there is still a lot to know," he said. In order to increase the quality of health services, the services of physicians and the services of health professionals are interrelated and it is important with which mentality one approaches quality work.	13	Waring et al., 2016	While quality and safety in health come to the fore in health policy and research, sociological approaches as well as human and environmental factors are also effective in shaping quality.
7	Moadeghrad, 2013	Health service quality is defined as the provision of effective health services that meet the patient's needs, comply with standards, constantly satisfy the patient by providing effective, effective and efficient health services, and contribute to the patient's well-being and satisfaction.	14	Greenfield and Braithwaite, 2008	It is a fact that there are many national health accreditation bodies and researchers engaged in empirical activities.
			15	Morimoto, 2010	The healthcare sector must reduce its emissions in line with international agreements and national laws on reducing carbon emissions worldwide.

Conclusion: Nowadays, there is a need to investigate the concepts of sustainability and circular economy in healthcare quality research. Considering the addition of circularity to quality models in Health Services from a quality perspective and the issue of what changes will occur in terms of quality in health services with the implementation of the circular economy is becoming increasingly important today. It also aims to provide a solid basis for collecting empirical data through case studies and interviews with healthcare professionals and experts, triangulating qualitative and quantitative data, formulating recommendations for the seamless integration of quality initiatives and circular economy principles in healthcare.

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Kayral, I. H. (2014). Perceived Service Quality In Healthcare Organizations And A Research In Ankara By Hospital Type. *Ankara Araştırmaları Dergisi*, 2(1), 22–34.

Disclosure of Interest: None Declared

Implementation of Key Result-based Digital-Performance Management System for Quality Manpower, Leadership Excellence and Safe Patient care in a Multispecialty Hospital: (2100) Amitha Prashanth Marla

ISQUA2024-ABS-2100

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Introduction: A well-implemented Performance Management System (PMS) contributes to organizational success by aligning individual and team efforts with strategic goals and fostering employee development. Talent management and performance Management are highly interesting and provocative topics, less touched on hospitals in India which mostly follow the traditional 360-degree method.

Scientific Performance Management using KRA/KPI and Leadership attributes not only leads to talent management but identifies skill management and training for improving the performance and morale of staff. This concept aligns with the World Health Organization's Strategy to link commitment to patient safety with appraisal systems for healthcare professionals in the Global Patient Safety Action Plan 2021-2030.

Digital-PMS serves as strategic alignment to achieve quality manpower by accessing the leadership practices of individual and their fulfillment of KRA/KPIs which plays a major role in data-driven decision-making, addressing training needs, and enhancement of healthcare professionals' and teams' performance.

Objectives

(1) To replace traditional 360-degree manual PMS with a scientific approach to digital ePA.

(2) To follow a Pathway measuring the Key result area (KRA), Key performance indicators (KPI), and Leadership attributes.

(3) To identify the training needs and focus on Talent management and succession planning.

(4) Identify the role of e-PA for transformational leadership in shaping the performance of individuals.

Methods: The research methodology encompasses a committee's formation to establish Key Result Areas (KRAs) and 16 Leadership Attributes under 3 success factors for assessment. Evaluation criteria include both KRAs and Leadership Attributes, with a weighted distribution of 60% for KRAs and 40% for Leadership Attributes for the Incharge, Supervisor and manager levels. The Subordinates are exclusively assessed on 16 leadership attributes, accounting for 100% weightage. A custom-designed software facilitates data collection, featuring a multi-level evaluation process encompassing self-assessment, manager evaluation, and independent reviewer scoring. The unique scoring mechanism employs various scales, with specialized training provided to the workflow approvers. To gain comprehensive insights into the PMS, a Business Intelligence (BI) tool is used to analyze and visualize key performance metrics.

Results: The task force identified KRAs and KPIs for all departments, establishing a range from a minimum of 3 to a maximum of 6 KRAs. Within this framework, weights were assigned, particularly focusing on areas with less than 6 KRAs. Total 1022 Appraisees participated in the PMS where the overall result indicates that the average staff performance stood at 77% out of 100.

The findings underscore a distinctive performance distribution among staff members, with 44% meeting the maximum 100% threshold, and 38% achieving a commendable 90% KRA fulfillment. Notably, no staff members fall below 50% fulfillment, underscoring a predominantly positive adherence to KRA targets within the organization. A portion of the staff, constituting 5%, has been identified for developmental discussions, and 14 individuals show potential for higher levels of job responsibility. 74.47% of the staff demonstrate the exhibition of leadership practices in People & Team Leadership, Delivering Values and Business leadership. Additionally, 14.55% of the staff have identified training needs for their development across the spectrum of 16 leadership practices. The Implemented process of PMS and its overall sustainability can be adopted in various hospitals.

Image:

Implementation Process



Individual Assessment



Format of KRA evaluation

KEY RESULT AREAS (KRAs)	Assigned Weightage (Maximum 10 points, & in multiples of 5)	KEY PERFORMANCE INDICATOR (KPIs)
The contribution to the overall rating by KRA is 60% KRAs should not exceed 9 KRAs targets to be aligned to the Strategic Objectives KRAs should have assigned weightages, depending on their importance, and the sum total of all should be 100 The best weightage that can be assigned for a particular KRA is 10% Department, Approver(s) and the Supervisor will guide the employees on a 5-point scale as per the definitions given below:		
KRA 1	KRA 2	KRA 3
Weightage	Weightage	Weightage
5	5	5
4	4	4
3	3	3
2	2	2
1	1	1

A+ (6 points)-	Exceeds 100% of KRA fulfillment
A (5 points) -	Meets 100% of KRA fulfillment
B+ (4 points)-	Meets 90% of KRA fulfillment
B (3 points) -	Meets 75% of KRA fulfillment
C (2 points) -	Meets 50% of KRA fulfillment
D (1 point) -	Meets less than 50% of KRA fulfillment

Conclusion: Employee performance management can vary depending on the business industry, company size and strategic objectives of the organization. In the traditional appraisal system, the manager is automatically cast as JUDGE, hence the subordinate's natural reaction is to assume a defensive role but not in the KRA, KRA-driven appraisal system which focuses on Employee development and achieving the strategic goals & and objectives of the Department/organization.

The individual and collective performance, with a specific emphasis on KRAs fulfillment, and exhibition of leadership attributes contribute to the development of targeted training programs and fostering a culture of continuous improvement. Appreciable improvement is realized only when specified goals and deadlines are mutually established and agreed on by the subordinate and his manager through the Performance evaluation which we visibly see in our study. Thus, it appears likely that well planned

Performance management at the hospital is the key to quality manpower leadership excellence & and patient care management.

Disclosure of Interest: None Declared

Care Under Pressure 2: causes and solutions to workplace psychological ill-health for nurses, midwives and paramedics- a realist review: (2744) Jill Mabe

ISQUA2024-ABS-2744

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Introduction: Providing high quality patient care requires healthy and motivated staff but there is a high and increasing incidence of psychological ill-health. Yet, psychological ill-health in healthcare staff has been a worldwide problem for decades, leading to presenteeism, absenteeism and attrition, with an unavoidable impact on quality of care.

Nurses, midwives and paramedics collectively comprise over half of clinical staff in the UK National Health Service (NHS) with some of the highest prevalence of psychological ill-health. Organisations across the world are struggling with recruitment and retention, thus improving staff working lives is a priority.

Building on our previous work with doctors (Carrieri et al. 2020), this study aimed to improve understanding of how, why and in what contexts nurses, midwives and paramedics experience work-related psychological ill-health; and determine which high-quality interventions can be implemented to minimise psychological ill-health in these staff.

We further asked:

1. Why is psychological ill-health in healthcare professionals still a huge and growing problem?
2. Why despite having interventions (many with an 'evidence-base') does the problem persist?

Methods: We used a realist synthesis methodology consistent with RAMESES reporting guidelines (Wong et al. 2014). First round database searching in MEDLINE ALL (via Ovid), CINAHL (via EBSCO) and HMIC (via Ovid), was undertaken February-March 2021, followed by more specific supplementary searching strategies (e.g., hand searching, expert solicitation). Subsequent database searches

(December 2021) targeted COVID-19- specific literature and literature reviews. We developed novel approaches to characterise the state of psychological wellbeing for the three professions, understand the context, manage the different-sized literatures, and co-produce the analysis (reverse chronological quota screening and appraisal journaling).

We worked closely with a stakeholder group comprising nurses, midwives, paramedics, representatives of patients and the public, managers and policy makers.

Results: Following initial theory development from 8 key reports, 159 sources were included. We surfaced 14 key tensions in the literature (incompatible aspects of work that affect psychological ill-health) and identified 26 Context Mechanism and Outcome configurations (CMOCs) supporting five key findings: (i) interventions are fragmented, individual-focused and insufficiently recognise cumulative chronic stressors; (ii) it is difficult to promote staff psychological wellness in a blame culture; (iii) the needs of the system often override staff wellbeing at work ('serve & sacrifice'); (iv) there are unintended personal costs of upholding and implementing values at work; and (v) it is challenging to design, identify and implement interventions to work optimally for diverse staff groups with diverse and interacting stressors.

Overall, the service architecture (organisational features, context and working practices) increased risk rather than the profession itself. Staff appear particularly at risk when newly qualified, exposed to trauma, or under investigation. Individual characteristics including ethnicity, sexual orientation and/or gender identify, and disability require greater attention.

Conclusion: Our final programme theory argues that healthcare organisations need to rebalance the working environment to enable healthcare professionals to recover from the stress and trauma they experience and thrive. Healthcare is a balancing act, with different considerations needing to be held in productive tension, such as the needs of staff and the needs of patients. For the future, investment in multi-level systems approaches to promoting staff psychological wellbeing is required.

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**Sustaining Community-Based Family Planning Service Delivery in the Philippines
through Community Health Worker Capacitation: A Systematic Task Shifting Strategy: (2864)
Jaime Dela Roca Bonifacio, Jr.**

ISQUA2024-ABS-2864

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Introduction: Community Health Workers (CHWs) are essential components of the Philippine healthcare delivery system, responsible for disseminating health information and facilitating access to services within communities. In response to disruptions in family planning (FP) services caused by COVID-19 in 2020, the Philippine Department of Health (DOH) mobilized them to directly deliver pills and condoms to clients' homes. While this strategy underscored their potential in addressing FP barriers, it also uncovered challenges and deficiencies in their ability to carry out basic health tasks. To tackle these issues, USAID ReachHealth conducted an implementation research (IR) project aimed at identifying effective task-shifting mechanisms to sustain community-based FP service delivery through CHWs.

Methods: The project spanned nine diverse localities across the Philippines. It involved focus group discussions and in-depth interviews with 92 CHWs, 64 clients, and 35 program managers to obtain diverse perspectives on FP service provision in the community. Triangulating qualitative data from these activities with quantitative service delivery data from facility records enabled an analysis of FP service utilization trends and identification of gaps in community-based FP service delivery. Additionally, stakeholders were consulted to develop interventions targeting gaps identified during the initial data collection, with a focus on capacitating CHWs and gradually shifting basic tasks from public health midwives to them.

Results: The study revealed that CHWs, whom community members trust, may have a tendency to disseminate incorrect health messages when inadequately trained and supervised. Significant gaps were also identified in the support provided to them, particularly in training, supervision, and service delivery, compromising the quality of their work and hindering their preparedness for task shifting. In response, a capacity-building package was developed for basic FP service delivery, aimed at facilitating systematic task shifting within the FP program. Initial training involved 219 CHWs, which proved effective in enhancing their knowledge and understanding of CHW roles in FP, as well as in correcting misinformation about health services. Records indicated that three months after training, these CHWs reached 8,576 women, with 20% having an unmet need for FP; further assisting 38% of those with unmet needs in contraceptive utilization.

In 2023, the DOH endorsed the training package and its accompanying supportive supervision strategy for nationwide dissemination.

Conclusion: The project highlighted the effectiveness of a thoughtfully designed training program in enhancing CHWs' capacity in basic FP service delivery. It emphasized the need for ongoing, high-quality capacity-building efforts to ensure CHWs perform FP tasks correctly and feel confident in their contributions. Furthermore, the intervention underscored that relying solely on government directives

and orientation activities is insufficient for CHWs to deliver FP services appropriately. Continuous coaching, mentoring, and provision of job aids are essential. Moreover, the mobilization of CHWs for FP services creates opportunities for expanded task shifting within the FP program. With proper training and supervision, CHWs can assist in relieving midwives and nurses of basic FP activities, allowing them to focus on other critical responsibilities.

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Disclosure of Interest: None Declared

Comparative Analysis of Perioperative Patient Safety Policies in Five European Countries: Findings from the SAFEST Project : (1760) Kaja Kristensen

ISQUA2024-ABS-1760

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Introduction: The EU-funded SAFEST project aims to improve patient safety practices in perioperative care across 10 hospitals in 5 European countries and scale up the learning to 100 hospitals in the EU and abroad. A quality improvement collaborative and benchmarking platform have been established to stimulate the adoption of the harmonized practices. The outputs produced by the SAFEST project have a great potential to be scaled up from pilot sites to routine practice across the EU and beyond. To strategically guide this scaling up, a nuanced understanding of regulatory environments surrounding perioperative patient safety is needed.

Methods: Semi-structured interviews were conducted in the piloting countries (Spain, the Netherlands, Portugal, Estonia, and the Czech Republic) with representatives from Ministries of Health, regulatory or accreditation bodies, professional associations or scientific societies, as well as managerial hospital staff and patient safety experts. A desktop search for relevant policy and regulatory frameworks around perioperative patient safety informed the development of the semi-

structured interview guide. Generated data were coded using an a priori framework adapted from the updated Consolidated Framework for Implementation Research (Damschroder et al. 2022) and a framework for assessing health systems' quality improvement and patient safety initiatives (El-Jardali 2017), complemented by inductive coding. Subsequently, codes were thematically analysed to delineate and compare the perioperative patient safety landscapes within the five countries. The analysis was performed using the software MAXQDA.

Results: In 24 interview sessions, 28 informants were interviewed, including five representatives each from Ministries of Health, professional associations or scientific societies, hospital staff, and patient safety experts, and eight representatives from regulatory or accreditation bodies. The mean length of interviews was 46 minutes (SD = 8.4). The analysis revealed variations in the existence of national policies for quality improvement and patient safety across health systems, often characterized by fragmented legislation and strategic plans. With regard to reporting and monitoring systems national patient safety indicators vary in detail and purpose of use. Accountability mechanisms differ among the target countries, with structured national audit programs, voluntary external accreditation, and rarely contractual agreements in place. Across all countries patient safety is not consistently integrated into the educational curriculum and professional training for healthcare professionals. Further, the interviews revealed a gap between high-level policies and the implementation of patient safety practices at local level.

Conclusion: The results of this study provide a roadmap for the SAFEST project to scale up harmonized perioperative patient safety practices within the diverse landscapes of patient safety policies in the target countries. Acknowledging variations in policies, legislation, monitoring, and accountability mechanisms, the project can tailor country-specific strategies to address gaps and enhance patient safety practices. Additionally, our findings stress the need to systematically incorporate standardized patient safety education into existing healthcare professional curricula to heighten the awareness and foster a cultural shift. This provides an opportunity for SAFEST to advocate and contribute to standardized programs. The identified gap between high-level policies and the implementation of patient safety practices at local levels highlights the need for targeted interventions. The SAFEST project can play an important role in bridging this divide by providing tools and resources and fostering collaborative learning.

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Disclosure of Interest: None Declared

How Organisational Research Culture and Translational Research Pathways Are Affecting Research Translation: A Mixed-Methods Study in an Australian Healthcare Organisation: (1980) Carolynn L Smith

ISQUA2024-ABS-1980

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Introduction: Health care organisations that engage with research and have an active research culture have been found to have improved patient outcomes compared to non-research-active organisations. However, there can be many impediments to undertaking and implementing research. This study aimed to identify the research translation pathways and research culture within a large healthcare organisation with the goal of generating insights into methods to strengthen research translation and improve research culture.

Methods: A sequential mixed-method study was conducted in 2022 in an Australian healthcare organisation, involving several hospitals, community care, and aged care facilities. Data on experiences and perceptions of research translation were collected via an online survey. Semi-structured interviews and focus group discussions were then conducted to further understand managers' and frontline staff's perspectives on improving research translation and to identify barriers and facilitators embedded within organisational research culture.

Survey data were analysed using descriptive and multinomial logistic regression statistical analyses in SPSS. Deductive thematic content analysis using the Knowledge-to-Action (KTA) framework and inductive approaches were employed to analyse the interview data.

Ethics approval was provided by the Macquarie University Human Research Ethics Committee (Approval number: 520221179540139).

Results: The survey received responses from 741 healthcare staff across the organisation. Most of respondents indicated that they would like to be involved in research (n=484, 80.5%), but fewer had been previously involved in research (n=107, 17.5%) or in implementing a change in practice (n=134, 31.6%). Staff working in private or public hospitals were significantly more likely to have been involved in research or quality improvement than those at community or aged care facilities (Private Hospital: $P < 0.022$, OR = 2.3, 95% CI: 1.13-4.73; Public Hospital: $P < 0.001$, OR = 5.5, 95% CI: 2.61-11.44). Barriers to participation in research implementation included lack of institutional support, high workload, and insufficient knowledge of research processes. Only half of the respondents were "completely" or "fairly" confident in their ability to apply evidence from the research literature to patient care (n=210, 50.8%).

Twelve staff members participated in the interviews: seven executives and five frontline workers. The main themes identified in the KTA framework were on identifying areas in which research is required (Action), identifying published research outcomes to apply to practice (Knowledge), assessing barriers to knowledge use (Action), and evaluating outcomes and sustaining changes in practice (Action). Key themes included challenges with research governance (including lengthy ethics approval processes and lack of knowledge of research pathways), high variation in organisational research culture

between facilities, and recommendations for additional support to facilitate research translation, such as dedicated research staff, more research training, improved dissemination of research results.

Conclusion: The results reveal a strong desire among health professionals to be involved with research translation but also systemic barriers to the identification, implementation, and evaluation of research in practice. Increased training and education, additional funding, and more streamlined processes for applying for, reporting, disseminating, and evaluating research translation were seen as key. The study findings can inform future policies, plans and activities for healthcare organisations seeking to increase research involvement and translation.

Disclosure of Interest: None Declared

Strengthening Quality Assurance System for Malaria Microscopy to Improve the Quality of Parasitological Confirmation in Benue, Nasarawa, Plateau, and Zamfara states in Nigeria: (2545) Methodius Okouzi

ISQUA2024-ABS-2545

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Introduction: Malaria, with a national prevalence of 21% (Nigeria Malaria Indicator Survey, 2021), is a public health scourge in Nigeria. Parasitological confirmation with either microscopy or rapid diagnostic tests is critical for providing timely and appropriate treatment, and for accurate measurement of the disease burden. Microscopy is used in tertiary and secondary health facilities providing in-patient care with functional laboratories where malaria microscopy is supervised and conducted by trained microscopists. The identification of species and parasite quantification is accurate to improve parasitological confirmation of malaria and monitor response to treatment determined by the parasite clearance rate. President's Malaria Initiative for States (PMI-S) project conducted baseline assessment in 2020 which revealed insufficient trained microscopist, inadequate supply of laboratory equipment and consumables, lack of supervisory visits and very low use of personal protective equipment. PMI-S supported the training of 55 certified medical laboratory scientists in 2021 and 2022, two years' supply of laboratory consumables including preparation and distribution of quality-assured Giemsa stains, procurement and distribution of 30 binocular microscopies (Cx-23 Olympus) and one optical teaching multi-head microscope to each of 31 health facilities without functioning microscopes to fill gaps. Also, provision of logistics support for the conduct of regular rounds of quarterly microscopy QA/QC supervisory visits followed by technical review meetings to discuss challenges and identify corrective actions which commenced in 2023 were supported.

Methods: Data from three quarterly QA/QC supervision rounds (March 2023 to December 2023) hosted on kobo toolbox platform, which were conducted in 44 health facilities (6 tertiary and 38 secondary) in the four states, was analyzed to measure improvement in sensitivity, specificity, detection agreement, use of personal protective equipment, and reported clinical diagnosis. Analysis of trend in each parameter across the health facilities was conducted by comparing records of retrieved slides from each health facility which were re-validated and reported by trained quality assurance officers in March 2023 with similar performance in December 2023. Also, the number of reported presumptive cases of malaria seen were compared across the same facilities within the same period.

Results: Results showed a 39% increase in the number of readable archived malaria slides, from 564 to 787 and significant increases in sensitivity ($V=22$, $p\text{-value} = 1.42 \times 10^{-5}$) from 53.4% to 94.2%, specificity ($V=75$, $p\text{-value} = 1.86 \times 10^{-6}$) from 39.8% to 70.0%, and detection agreement ($V=123.5$, $p\text{-value} = 7.12 \times 10^{-5}$) from 56.1% to 79.6%. Similarly, clinical diagnosis among these health facilities dropped from 21% to 8.2%. For safety practices, improvement was observed in the number of health facilities with running water from 30 to 35 (16%), use of lab coat/gowns by lab workers when at work from 25 to 35 (40%) and use of hand gloves when at work from 28 to 36 (28%).

Conclusion: This study reinforces that strengthening the capacity of malaria microscopists through regular supervision and increasing the supply and availability of critical laboratory equipment, consumables, and PPE enhances the capacity of the health workers to produce accurate malaria test results using microscopy. These efforts improve detection of malaria, and reduced risk of misdiagnosis. Exploring the opportunities available in the states to support the current scope of microscopy EQA activities which will sustain the gains made through the support provided by the PMI-S project to national and sub-national malaria control efforts is advised.

References: Nigeria Malaria Indicator Survey, 2021

PMI-S Quarterly QA/QC reports from March 2023 to December 2023

Disclosure of Interest: None Declared

Culture of quality ‘traps’ for quality improvement for mothers and children in the Kyrgyz Republic: (3289) Nurshaim Tilenbaeva

ISQUA2024-ABS-3289

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Introduction: Quality of care in health care is not just an ultimate goal for improving health status and outcomes of population. It is a culture that drives continuous quality improvement. Over the past decades the Kyrgyz Republic has achieved significant reductions in neonatal, child and maternal mortality. Despite the progress, mortality rates are still unnecessarily high compared to the average in the WHO European Region [1]. The Government of Kyrgyzstan considers maternal, newborn and child health a priority and is committed to ending preventable mortality. Cases of maternal and child deaths are investigated at different levels and using different approaches. Since 2006 the country has started introduction of evidence-based approaches to near miss case review and death surveillance; however, given quality improvement approaches are accompanied by ‘traditional’ investigations, which focuses on errors of individuals and associated blame culture. The mandatory punishment in cases of deaths makes it a forced choice to identify and sacrifice a culprit for supposed ‘mistakes’ [2]. Current quality of care culture in the country is driven by top-down command, external inspection and mandatory committees at the facility level, rather than inherent in the work of clinical teams or embedded in training and continuing professional development [3]. Often the demand for punishing health care providers for ‘supposed’ mistakes rises from general public. Active social mobilization using social media is one approach used.

Methods: Within the framework of the hospital improvement project for mother, newborn and child health in 11 hospitals of the Kyrgyz Republic, the quality of care was assessed and re-assessed in 2021 and 2023 respectively. Assessments were conducted using adapted WHO tools on hospital care for children (2015) and hospital care for mothers and newborn babies (2014). Furthermore, the implementation research was conducted with three embedded components including the experience of provision of care. Within the qualitative research 38 interviews were conducted with doctors, nurses and midwives from the hospitals participating in quality improvement project. Furthermore, a snapshot review of social media posts on maternal and child deaths cases for the last 13 months in the country was analyzed for a subject of language use and nature of both key messages delivered and people’s feedback towards the posts.

Results: Results of the re-assessment of quality of care in 11 hospitals showed considerable improvement in many case management indicators; however, the standard of care achieved after two years of interventions was largely still not according to international standards in most cases. Hospitals with greater involvement and support from their management have more advanced in quality improvement. Qualitative study within the implementation research showed that healthcare professionals feel unsupported and unprotected by the health system. Doctors may favor patients’ hospitalization and medication prescription demands to avoid complaints and exposure. Patients frequently use social media platforms to live-stream or record their hospital experiences and express

dissatisfaction with aspects of their care. This further expose healthcare providers to potential conflicts without support from the healthcare system to address such situations effectively. Lack of support from the healthcare system exacerbates the negative impacts of excessive workload and limited resources on healthcare professionals. Review of social media posts on cases of maternal and child mortality for the last 13 months has also shown the use of excessive blaming language both by post authors as well as negative comments users leave. General population often blame care providers on incompetency and calls for immediate actions for ‘supposed’ mistakes including imprisonment. As a response National health authorities form external commissions and investigations which often lead to employment-initiated termination of culprits.

Conclusion: Blame culture being an integral part of the dysfunctional “vicious cycle” for implementation of evidence-based quality improvement approaches. Blame culture and punitive measures demoralize the health workforce. It is also ineffective in identifying and enabling learning to prevent the recurrence of the same errors within a health system. It is also counterproductive as it may cause further patient harm as healthcare providers involved in making such errors tend to hide or mask then in anticipation of punitive actions brought against them. Building an enabling and protective regulatory environment is a key step for building a ‘blame-free’ quality of care culture.

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Disclosure of Interest: None Declared

Lightning Talks

In-vitro fertilization (IVF) patient perspective and experiences with digital innovation during treatment in Vietnam: (2344) Anh Dang

ISQUA2024-ABS-2344

A. Dang^{1,2,*} and Bao G. Huynh^{1, 2}, Hoan K. Nguyen¹, Can D. Dang¹, Tuong M. Ho^{1, 2}

Introduction: The IVF long protocol may make the couples have difficulty in making sense of their fertility problems and make the psychological impacts which affected specifically not only the associated treatment protocol but also the rate of success become important. On the other hand, the internet has become a common source of fertility treatment-related information, and social media is viewed as a potentially effective avenue for dissemination of fertility-related news and education. Although the evidence is still limited, considering the ease of access to low quality information like social media could improve patients' fertility-related knowledge, experiences and help decision-making (Curchoe, 2020). **Within the Vietnamese context, it is reasonable to hypothesize that providing high-quality information and experiences via a smartphone application can be an appealing strategy to help offset the damage incurred from vastly accessible low-quality information and rapidly reduce the rate of drop-out treatment. However, to improve literacy on Vietnamese fertility treatment and strategically renovate our IVFMD Mobile App, we must investigate the perspectives and experiences of IVF patients in smartphone application.**

Methods: The mixed method research was used to combine qualitative and quantitative experiments in two stages of the study from September to December 2022 at IVFMD, My Duc Hospital, Ho Chi Minh City, Vietnam. In the qualitative stage, nine patients who have used the IVFMD Mobile App during their treatment at least once time and three customer care staffs were conducted for 45-60 minutes one-on-one interview. In the quantitative stage, 150 patients who used the IVFMD Mobile App during their treatment were conducted for 20 minutes face to face survey.

Results: The smartphone application, IVFMD, is the most unique IVF health care application in Vietnam that has been widely downloaded by about a half million Vietnamese and as two of its features, this application provides high-quality information and electrical fertility treatment record developed under the supervision of a reproductive endocrinology specialist. It also has been reported that 65% IVFMD patients are tech-savvy. 78% of the participants were introduced to the IVFMD Mobile app by IVFMD employees, while 96% of the patients agreed that the doctor appointment scheduling platform through the IVFMD Mobile app was the most useful feature for them. Some participants suggested that the application interface should be improved, and more applications should be added such as increasing the available slots for scheduling the doctor appointments, updating treatment information and records for their following and being further smoothly and personally.

Image:

Figure 1. Study flow chart



Table 1 – IVFMD Mobile App Patient experience.

	Task	Survey	20 yrs old -	30 yrs old +
	(1)	(2)	(3)	(4)
	N=67	N=57	N=62	N=67
Mobile App content	75%	80%	77%	73%
Medical fee report	30%	40%	44%	30%
Ongoing pregnant record	42%	30%	40%	37%
Prescription / Decided protocol	30%	52%	44%	32%
Personalized information according to the treatment regimen	20%	34%	30%	27%
Published hospital fee	20%	34%	20%	20%
Hospital / F Department Award	10%	17%	16%	10%
Connections	40%	49%	47%	30%
Notifications at important touch points	20%	47%	20%	27%
Embryo record (number of embryos, time of evaluation, embryo results, therapies, ...)	30%	20%	30%	27%
Online patients and IVFMD	10%	17%	10%	10%
Community platform	10%	10%	10%	17%
Notifications of tests or monitoring points	7%	17%	5%	10%

Table 2 – IVFMD Mobile App Patient perspective .

Conclusion: The result regarding the effects of the IVFMD mobile application on patient satisfaction and experience during the infertility treatment process was positive. Mobile apps are increasingly used in reproductive healthcare to promote wellness, treat, diagnose, aid clinical decision-making, manage patient care, experiences and collect data for medical research. The challenge for the IVFMD Mobile app is not only to prove that it meets the accuracy standards of tested, tried, and true methods in treatment protocol and research but also the patient experiences that can shape their reproductive lives and release their stress partially during the treatment.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-3461

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Introduction: Supportive care in oncology aims to provide the necessary services for those living with or affected by cancer to meet their physical, emotional, social, psychological, informational, spiritual and practical needs across the care pathway, with the overall aim to enhance experiences of care. In previous work, we developed the Lausanne Hospitality Model, where we integrated hospitality services inspired by the hotel industry in this supportive care framework, as these services have an impact on the patient experience. Building on this model, we aimed to develop an intervention program to improve hospitality services in a hospital setting.

Methods: Qualitative data collected through focus groups and interviews with patients, health and administrative professionals working, and experts in hospitality were analyzed to identify needs in a hospital oncology department. Based on the “Lausanne Hospitality Model”, we co-designed a hospitality intervention in cancer care to reinforce practical, emotional, and informational services offered to patients with cancer.

Results: We identified nine unsatisfied needs related to hospitality services for people affected by cancer (e.g., receive information in the event of delays or have easy access to reliable information about their illness). We then co-designed with the patients, health and administrative professionals and hospitality experts a hospitality-focused program with four components to address these needs: a mobile application dedicated to patients; an information kit; hospitality training for oncology teams; a revised integration process for new hospital staff based on the hotel model. The “Lausanne Hospitality Model” offers new insights into the notions of cancer journey, patient experience, services, and the practices that may be involved when facilitating hospitality.

Conclusion: Our study provides insights into unmet hospitality needs and how to address them with a hospitality program co-designed with patients, hospital professionals and hospitality experts. Improving the services offered to patients is an important lever for enhancing their experiences and, by extension, optimizing communication between patients and professionals, supporting the work of administrative teams, strengthening tools to facilitate patients’ care pathway and providing better overall cancer care.

Disclosure of Interest: None Declared

Reducing Obstetric Fistula Surgical Backlog Through a Comprehensive Routine Service Delivery Model in Makueni County, Kenya: A promising approach: (3465) Christine Kalonde Muia

ISQUA2024-ABS-3465

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Introduction: Obstetric fistula (OF) is a major burden for women in low- and middle-income countries. OF is prevalent in 1% of women in Kenya which can be attributed to underreporting, stigma, and limited access to healthcare. The World Health Organization has estimated that between 50,000 and 100,000 women are affected by OF each year. In developing countries including Kenya, many women and girls are silently suffering from OF that occur due to early marriage, poor socioeconomic status, lack of access to skilled birth attendants and limited awareness of obstetric fistula. The condition remains 'hidden' in the community and it is highly associated with myths and misconceptions. There is a global shortage of skilled fistula surgeons. Kenya currently only has 11 fistula surgeons, (with the 11th one recently trained from Makueni county) . In many instances, fistula surgery has been done through repair camps which is a short-term mobilization of women with suspected fistula for screening and repair of positively diagnosed women.

Methods: The routine model focuses on integrating Obstetric Fistula into routine health services, rather than relying on intermittent surgical camps which are expensive and there is no continuity of patient care. The OF Care team comprising of an obstetrician/Gynecologist, theatre and post-natal ward nurses, anaesthetists, physiotherapist, counsellor and nutritionist underwent a 6-week period training for the surgeon and 2-weeks training for the other team members. The trained surgical team conducted a whole-site orientation to the other health care workers with a focus on screening, preoperative preparation, surgical intervention, postoperative care, and psychological support. The county leadership provided the required infrastructure, equipment and supplies. Client mobilization and awareness creation was done through media engagements, trained community health volunteers (CHPs), community engagement activities among others.

Results: A total of 45 surgeries have been done with over 120 screened for fistula since March 2023.15,000 community members reached through structured and unstructured avenues on OF messaging. 406 CHPs trained on community screening tool for OF and referrals. 9 Journalists trained on debunking of myths and misconceptions on OF

Conclusion: To successfully set up a fistula centre, the following key components are necessary: training of the fistula care team, provision of the necessary infrastructure,equipment and supplies and community involvement to help identify cases, improve access to treatment and support successful reintegration and rehabilitation of clients

The comprehensive routine service delivery model presents a sustainable and scalable solution to reduce the Obstetric Fistula surgical backlog in resource-limited settings. It underscores the importance of local health system strengthening and community engagement in addressing global health challenges. With success of this approach, advocacy can be done for scalability in regions grappling with similar health issues

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Disclosure of Interest: None Declared

Enhancing cervical Cancer screening Pathway in a Health network -Saudi Arabia: (2995) Duaa Al Abbas

ISQUA2024-ABS-2995

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Introduction: Cervical cancer is a global public health problem. The proven effectiveness of intervention measures, such as vaccination (1) and screening, makes cervical cancer a largely preventable disease. (2) Among women globally, Cervical cancer is the fourth most common neoplasm and the fourth leading cause of cancer death (3) The literature demonstrated that, unlike global trends, cervical cancer incidence in Saudi Arabia is increasing. In addition to that, a high proportion of it is discovered in advanced stages. This state of late discovery was attributed to the absence of efficient preventive and screening programs. (4) By 2030, the yearly incidence of cervical cancer is expected to jump to 700,000, and the number of deaths is predicted to increase if no further intervention is done (5)

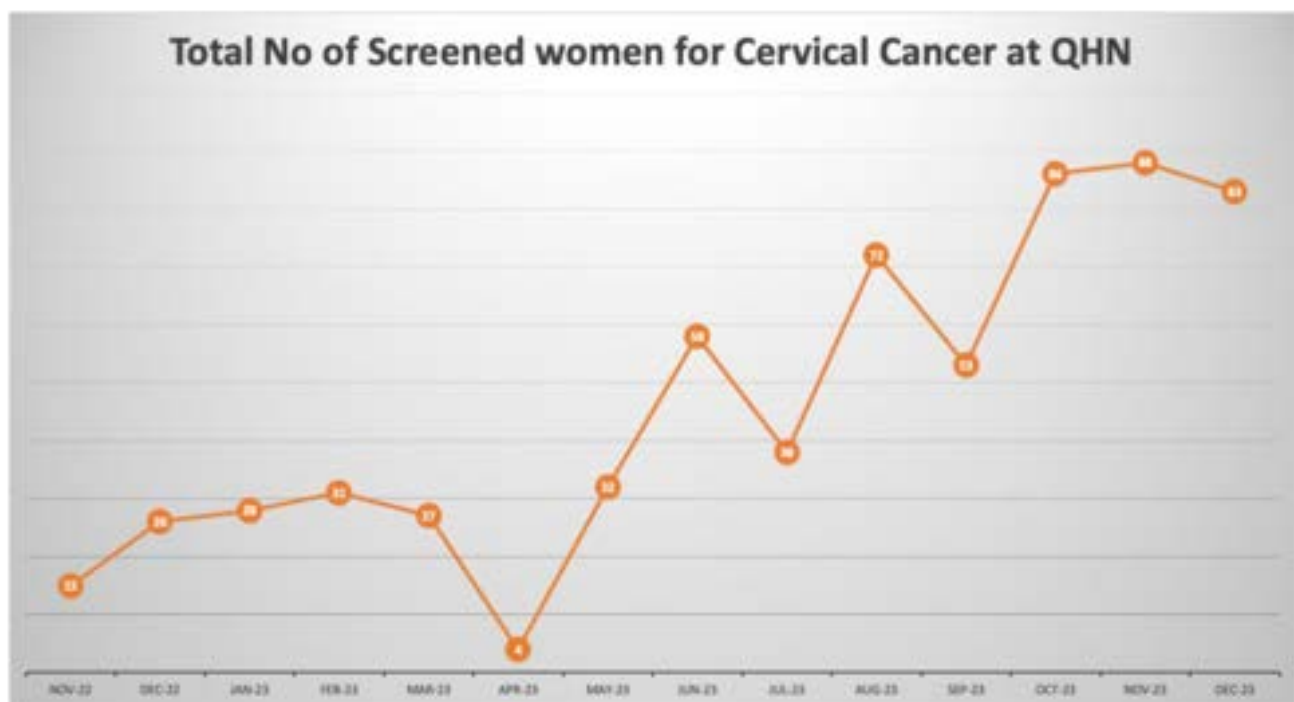
Methods: The study aims to evaluate the prevalence of abnormal Pap smear results among women who were screened at Qatif Central Primary Health Care Centers, between November 2022 and December 2023, with the aim of establishing a mandatory national screening program based on the findings

The project has adopted a continuous approach by implementing a newly established cervical screening program at Primary Health Centers (PHCs), which utilizes Pap smear tests for asymptomatic women. This program is overseen by family physicians. Additionally, the project includes training for

family physicians to implement national guidelines, raising awareness, and developing key performance indicators to monitor progress

Results: A sum of 626 Pap smears were conducted, aiming to reach 2% of married women annually, equivalent to approximately 44 Pap smears per month. This endeavor resulted in the detection of specific cases of ASCUS, LSIL, HSIL, and Adenocarcinoma, prompting the need for further examination and referral for additional assessment.

Image:



Conclusion: The introduction of a compulsory cervical cancer screening program in the Qatif region marks a significant stride towards enhancing women's health. This initiative prioritizes early detection and prevention, aiming to mitigate the impact of cervical cancer through proactive measures

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Disclosure of Interest: None Declared

The Patient-centred Care Team: Effect on Patient reported Health-related Quality of Life: (3228) **Gro Karine Rosvold Berntsen**

ISQUA2024-ABS-3228

L. R. Marco ¹, E. S. Norheim ¹, M. Rumpsfeld ², L. Spansvoll ³, M. M. Dalbakk ², M. Tayefi ¹, G. K. R. Berntsen ^{1,*} and The PATient Centered Team (PACT) Study group

¹Norwegian Center for E-healthresearch, ²E-health, collaboration and innovation centre, University hospital of North Norway Trust, Tromsø, ³E-health, collaboration and innovation centre, University hospital of North Norway Trust, Harstad, Norway

Introduction:

There is a call for bold and innovative innovation in the face of the sharp increase in multi-morbid frail elderly, with complex and long-term needs (CLNs). Frail multi-morbid patients are at documented risk for sub-optimal care processes and outcomes which in turn drives costs. Due to low resilience in this group, small insults may quickly spiral into a clinical crisis and hospitalization. While emergency hospitalizations are undesired, they also represent an opportunity to review the patient's conditions and provide comprehensive person centred care (PCC) that aims to improve quality of life. Yet we, to the best of our knowledge, we found no study of comprehensive PCC interventions effect on Health related Quality of life (HR-QoL) in elderly multimorbid patients with CLNs in the context of an emergency hospital admission.

We have previously showed in the context of emergency hospital admissions that the Patient Centered Care Team (PACT) reduced risk of emergency care, increased use of planned care and reduced mortality by 40% in a group of frail multimorbid patients [1]. Research question: Does the PACT intervention also have an impact on patients' quality of life?

Methods:

Patients were eligible for inclusion in treatment group if they were referred to their first PACT team episode during an emergency hospitalization, > 60 years of age, had multimorbidity and complex care needs, were accepted for treatment in the PACT team and provided informed consent. Consenting PACT patients were matched using a propensity score (PS) algorithm from previous work [1] to potential controls from a pool of patients > 60 years of age, admitted to emergency hospital care within

the last 3 weeks. Potential controls were included if a research assistant confirmed that they were multimorbid and had CLNs, did not have prior PACT-episode, and provided informed consent.

Prognostic variables were collected from routine hospital electronic health record (EHR) data. The PS covariates were demographic, morbidity and health care utilization measures. We collected the following HR-QoL measures at baseline and 3 months: SF12-v1, physical score (primary outcome), EQ-5D-3L and the patient generated index (PGI). We used inverse propensity score weighting (IPSW) to correct for baseline imbalances between the groups and adjusted for remaining imbalance in multivariate IPSW regression outcomes analysis.

Results:

We identified 275 PACT eligible patients and 680 eligible controls. Of these, 141 (PACT) and 184 (Controls) were included in analyses. Response rate: 33%. Main exclusion reasons were "Too ill to provide consent" and "Non-consent". Included patients were healthier than non-recruited patients.

Crude analyses: The intervention group improved more than the control group in all measures. The intervention group scored poorer than the control group at baseline in all measures except SF-12 mental health, but had caught up with the control group at follow-up.

Adjusted analyses: In adjusted IPSW outcomes analyses, both groups improved, but the intervention group improved their HR-QoL more than the control group in all three main outcome measures. The primary outcome, Change SF12 physical score, improved 3.9 points more (95% CI: 0,33-7,47) than the control group. Similarly, change in EQ5D was + 0,53 points (95% CI: 0,33-7,47) and change PGI was +0,79 points (95% CI: 0,12-1,45) more compared to control group. The average adjusted improvement of SF-12 physical for the treatment group was 5,7 (95% CI: 3,06-8,44) and 1.8 (95% CI: -0,25-3,9) points in the PACT and control group respectively. The PACT patients SF-12 change is 3-times the minimally clinically important difference of 1,8 for SF-12 [2].

SF-Mental scores were the same in both groups at both baseline and follow-up, which reflects that PACT was not primarily a mental health intervention. The change in EQ5D-Visual analogue scale of overall health did not differ between the groups.

Conclusion:

A comprehensive care program, with a strong focus on person-centred care for multimorbid frail elderly, improved HR-QoL in a clinically meaningful way compared to the control group.

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Disclosure of Interest: None Declared

A Framework for Improving Clinical Quality In Ensuring Good Clinical Outcomes and Enhanced Patient Experience In Surgery Care Through A Digital Approach: (2786) Ilaveyini Selvaraj

ISQUA2024-ABS-2786

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Introduction: Providing patient-centered care constitutes a crucial element of a high-quality healthcare system where patient experience is emphasized as a critical measure of quality. Globally, advancements in digital healthcare are enhancing every facet of the patient care continuum, presenting substantial opportunities for optimizing clinical care, particularly in areas such as surgery care, providing a hassle-free experience and convenience for patients throughout their surgical journey. Surgery care serves as a comprehensive solution, for patients to identify the right doctors & hospitals for their surgeries and especially pre and post-operative needs, enhanced with insurance support, and ensuring high quality care and optimal clinical outcomes through close monitoring. Creating a framework for clinical effectiveness in surgery care, using a digital approach, is crucial for advancing healthcare practices, optimizing patient outcomes, adapting to the digital healthcare landscape, and establishing best practices in the field. It contributes to evidence-based decision-making, continuous improvement, and addressing healthcare challenges while enhancing patient-centered care. The primary objective is to develop a comprehensive PDSA (Plan-Do-Study-Act) -driven framework for Surgery Care, integrating digital healthcare services and assessing the effectiveness. The focus is on clinical excellence through a process driven approach, stratifying risk right at the beginning, with patient safety as a priority, aimed to achieve positive clinical outcomes and enhanced patient satisfaction.

Methods: This study introduces a framework grounded in the Plan-Do-Study-Act (PDSA) model, designed to optimize Surgery Care experience via digital healthcare services. The study employs a multi-stage approach to Surgery care right from initial patient screening, Doctor Consultation, Hospital Admissions till Post-Surgery follow-ups. Each stage incorporates various clinical checks and patient monitoring measured by patient satisfaction at each stage enabling us to get valuable insights about patient experience. To strengthen the clinical quality in surgery care, we have designed a risk stratification model at preoperative level, to enable risk categorization of each patient undergoing surgery, so that effective clinical support and monitoring can be provided to ensure better clinical outcomes.

Results: Out of the 15,000 elective surgeries performed between April 2022 and the present, this framework has been implemented and evaluated in 9,000 elective surgeries. Results indicate a consistent Customer Satisfaction (CSAT) rating of 4.8 (on a 5 pointer scale), alongside good clinical outcomes in terms of quality indicators such as elective surgery mortality and postoperative complications rates with lesser incidents reported. Furthermore, feedback from patients highlights

high satisfaction levels, with 95% rating their experience with the surgeon and 93% rating their overall support from the surgery care team with a CSAT rating greater than 4.

Conclusion: Through the implementation of the proposed framework, the study demonstrated improved clinical care, streamlined processes, and heightened patient safety with enhanced patient satisfaction. The study envisions a transformative impact on patient outcome and patient experience, reinforcing the importance of continuous improvement in surgery care processes.

Disclosure of Interest: None Declared

Implementation of Person Centered Care in Turkiye: Challenges and Success Points Learned from a Unique Culture: (3413) Ilkay Baylam

ISQUA2024-ABS-3413

Baylam ^{1,*1}Partner Success, Planetree, Derby, United States

Introduction: Person Centerd Care framework and its implementation in three different healthcare organizations in Turkey has been a learning experience. In this presentation author is finding the answers to the questions below:

What are the unique challenges of Turkiye in the implementation of Person Centered Care program?

How did we overcome these challenges?

What are the outcomes of Person Centered Care implementation in three healthcare organizations?

Methods: Planetree's Excellence in Person Centered Care Certification program implementation including developing person centered care structures, practices and measurement of both process and outcome meaures such as patient experience scores and staff engagement scores are used in this study

Results: We were able to identify an increase with the patient satisfaction scores and staff engagement scores of the three healthcare organizations which this study was implemented.

Conclusion: This study provided us information about different cultures' unique challenges in the implementation of Person Centered Care program. However, once these challenges are addressed, we were able to see an increase in both patient experience and staff engagement scores as a result of this implementation

References: Harnessing Evidence and Experience to Change Culture: A Guiding Framework for Patient and Family Engaged Care

Susan B. Frampton, PhD, Planetree; Sara Guastello, Planetree; Libby Hoy, PFCCpartners; Mary Naylor, PhD, FAAN, RN, University of Pennsylvania School of Nursing; Sue Sheridan, MBA, MIM, DHL, Patient-Centered Outcomes Research Institute; Michelle Johnston-Fleece, MPH, National Academy of Medicine

Disclosure of Interest: None Declared

Ethics are relational: A Critical Systems Thinking approach to implementing ethics in medical AI: (1567) Magali Goirand

ISQUA2024-ABS-1567

M. Goirand¹, E. Austin^{1,*}, R. Clay-Williams¹. ¹Australian Institute of Health Innovation, Sydney, Australia

Introduction: Artificial Intelligence (AI) is increasingly integrated into healthcare, and implementing ethics in medical AI is complex and contextual [1] for which a Critical Systems Thinking (CST) approach is well suited [2]. A CST approach promotes co-producing with a group representative of stakeholders in an inclusive, transparent, and egalitarian way. This study aimed to explore how to implement ethics in medical AI following a CST approach.

Methods: A diverse group including physicians, patients and AI developers were engaged in a participatory process about a fictitious COVID-19 AI app based on real AI apps. The process consisted of individual interviews and group discussions. The 37 participants included diverse clinicians, healthcare technology professionals, data scientists, AI developers, and professionals from diverse sectors such as state and local government, academia, insurance, education, consulting, retail spanning diverse cultural backgrounds. The age of the participants ranged from 23 to 83, gender, urban and rural residents had a balanced representation. The app had three functionalities: personal health self-monitoring, physician's remote monitoring of COVID patients, and infection clusters monitoring by public health agencies. The participatory process based on CST practices. It implies that participants were asked to share their experience of the process, and the principal researcher kept a journal.

Results: Exchanges in the group discussions were respectful, robust, and formative. Mapping the flow of knowledge between the different agents such as patients, AI, and clinicians and other stakeholders was found to be an effective support for the group discussions. In the process, the patient-clinician-AI model was enriched and ethical assumptions emerged rapidly. Another finding is that ethics are embedded in the relationships between the agents which leads to the reflection about how intentional the design of such relationships is when developing and implementing the AI systems. The CST approach augmented by a set of questions derived from the current research would guide AI developers and implementers in their reflection before undertaking a participatory process, and guide the conversations during the participatory process.

Conclusion: Such participatory processes should start at the inception of the medical AI app and carry on during the app lifecycle. The custodian of the data used by the AI app, as well as of the process of implementing ethics should be neutral and independent of the organisations developing and implementing the app. While this study was based on a fictitious app, the process and the outcomes can be adopted for future AI apps.

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Disclosure of Interest: None Declared

Supporting women middle managers in the Health and Social Service System by fostering their psychological well-being : A qualitative inquiry into lived experiences: (2354) Eric Walling

ISQUA2024-ABS-2354

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Introduction: Despite this prevalence of woman in healthcare (67% of global healthcare workers, 80% for Europe and Asia [1]), research on the success and wellbeing of woman middle managers (WMM) has primarily focused individual factors, such as the glass ceiling, pay equity, and organizational policies. However, there is a significant gap in research on how WMM in healthcare systems navigate the structural challenges arising from their middle-management positions, as they seek to juggle their complex professional, family, and individual lives.

This research sought to understand the realities of WMM in Health and Social Service Systems (HSSSs) and what impacts their psychological wellbeing, using Quebec's HSSS as a case study. Research questions were the following:

What organizational/personal factors contribute positively/negatively to the success of WMM in HSSS?

What organizational/personal factors contribute positively/negatively to the wellbeing of WMM in HSSS?

How do WMM manage their multiple roles?

What recommendations do they have for the HSSS?

Methods: To answer the research questions, a qualitative inquiry approach was conducted, using semi-structured interviews to hear about participants' experiences, the collisions between work and family responsibilities, the strategies they use to support themselves and manage their multiple roles, and their recommendations for changes that would support them. The questions were designed to solicit participants' stories around societal, individual, and organizational factors, as determined by a comprehensive review of the literature.

Interviews were transcribed, coded, and themed based on structures identified through the research, using a lens of social constructivism and interpretivism. Findings were compared to the participant transcripts to ensure that they were reflective of the data that emerged.

Experience in middle management of the participants ranged from 3 years to over 20. The sizes of the teams managed by the participants varied from 12-15 to over 700 employees, with an average of 50-75. Most participants were in relationships and had children.

Ethics approval was obtained from Concordia University and the Quebec HSSS. A requirement for ethics approval by the HSSS was that participants reach out to the research team, following project promotion by the HSSS internally.

Results: The findings of this study are far reaching and have broad implications at societal, organization, and personal levels for health and social service systems. Many of the participants described themselves as change agents, communication agents, human resource managers, organizational strategists, and political strategist, demonstrating the complexity of their realities. This contributed to significant psychological stress on the participants, with tearing emerging as a primary contributor to stress and poor wellbeing in these WMM. This was particularly compounded by a clash between the espoused organizational values of compassion, respect, collaboration, accountability, and innovation, and the realities of the demands placed on them, following efficiency driven models of austerity, productivity, and efficiency above all else. The values espoused by Quebec's HSSS are like those of many other healthcare systems, both private and public, around the world.

Factors that were found to contribute to their well-being and success were: positive relationships, support at work and home, flexibility, control, recognition, and confidence. Factors that challenged their well-being were: societal norms, clash of values, organizational culture, conflict, perfectionism, emotional labor, recovery time, tearing. Individual and organizational strategies to improve success and psychological well-being were proposed. Insights included the following: all participants accepted societal norms regarding their caregiving roles, the 2nd and 3rd shift were very present and a leading cause in exhaustion, the HSSS placed unrealistic expectations on all of them, which compounded their superwomen syndrome, ultimately leading to systemic burnout. This contributes to understanding recent research that has found burnout rates for WMM in healthcare varying between 40% and 60% [2,3].

Conclusion: Persistent gender segregation in paid and unpaid work spheres leaves in a position that is detrimental to wellbeing. This raises important implications for policies and practices that contribute to work environments which are systematically maladapted to WMM. If true progress is to be made, society must value caregiving and develop policies and practices which allow people to thrive in all spheres of their lives: self, family, and work. Traits such as confidence and self-esteem are not enough to overcome clash of values and organizational cultures that are simply inconsiderate of the realities of women.

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Disclosure of Interest: None Declared

Quality Improvement Capacity Building Program for the Nigerian National Clinical Mentors Program - Lessons Learnt from Implementation: (1337) Isa Salihu Daniel

ISQUA2024-ABS-1337

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Introduction: The Federal Ministry of Health (FMOH) in partnership with the US Centers for Disease Control and Prevention (US CDC) initiated a National Clinical Mentorship Program (NCMP) in December 2021 with Public Health Information, Surveillance, Solutions, and Systems (PHIS3) as technical partners. Considering Quality Improvement (QI) methods are proven approaches to improve clients' Quality of Care and Outcomes in healthcare settings, the FMOH identified and employed highly skilled healthcare practitioners as mentors to provide continuous education and to enhance workforce performance and engagement as such the need for QI capacity building of these individuals was vital.

Methods: The NCMS provide mentorship and leadership to healthcare workers (HCWs) in the HIV program in Nigeria and will need an extensive set of CQI skills to enable them to mentor the HCWs. We set out to implement a NCM QI Mentorship program to equip the NCMs with the necessary knowledge and skills in QI methods to enable them to implement QI projects across facilities in the country and provide them with the capacity for QI coaching. As a result, a Quality Improvement capacity-building program was conceptualized to have these components – 5 days basic QI training, didactic sessions, mentoring sessions, and a practicum built on the collaborative. Following the engagement of an NCM across the 19 US CDC-supported states, the project began with the 19 NCMs undertaking a five-day basic QI training in June 2022. The Model for Improvement (MFI) was chosen as the QI methodology for the training. The MFI is a simple but effective Quality improvement method which uses Plan-Do-Study-Act (PDSA) cycles and targets accelerating improvement in projects, it has two critical parts. The first part provides answers to three fundamental questions and the second is the PDSA cycle tests. Pre- and post-training assessments were done for the participants to assess knowledge gain. The areas assessed (8) were; QI knowledge, Performance management, Quality management (QM) assessment, QM facilitation, QM capacity building, QM strategy, QM collaboration and QM deployment. The NCMs were supported to implement QI projects in selected facilities in their states. Monthly virtual mentoring group sessions were scheduled with the NCMs to build their capacity in QI skills and facilitation and to support ongoing QI projects by providing mentoring on how to coach QI teams and provide guidance on challenges identified during QI meetings. To ensure uniformity, a standardized template was used to guide presentations on work done (collaborative update and issues faced) within the review by the NCMs per session.

Results: The NCMs made presentations that contextualized their improving QI mentoring and facilitation skills and revealed key change ideas that show improvement in the process measures tracked by the facilities' QI project. Post-mentoring session polls demonstrated knowledge gain especially in the QI knowledge section (from 60% to 100%). During each mentoring session, each NCM

demonstrated learning and practice acquired by presenting their QI projects to QI advisors who then provided feedback on any areas that needed improvement. Lessons learned from the NCMP were applied in the conceptualization of a similar mentorship program for over 170 SCMs in the 19 US CDC-supported states. This also resulted in the provision of more basic training practical sessions, monthly didactic sessions, and monthly mentoring meetings for SCMs. The NCMs co-facilitate most of the ongoing capacity-building activities for SCMs.

Conclusion: The efforts to achieve sustainable HIV epidemic control require QI capacity at both national and sub-national levels. By providing Quality Improvement (QI) mentoring and enhancing the capabilities of NCMs, a cascading effect has been initiated for sustaining a QI culture in the country.

Disclosure of Interest: None Declared

Implementing Genomics in Primary Care: (2974) Janet C Long

ISQUA2024-ABS-2974

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Introduction: Genomic testing is becoming more widely available across all health care settings in Australia, including primary health. The evidence-base of clinical utility and cost effectiveness of many genomic applications is now well established and growing, and consumer attitudes are becoming more positive to testing. Recent additions of genomic tests onto the Australian universal insurance scheme, Medicare, have made tests such as genetic carrier screening for couples planning a family, and testing for actionable genetic diseases such as familial hypercholesterolaemia, more feasible in primary practice. However, many general practitioners (GPs) [family physicians], have limited experience in genetic testing. There are also concerns over the capacity of specialist genomic services to handle any increases in referrals. The aim of this study is to define the challenges of implementing genomics into primary care, and strategies and resources being used to address them. This has very important consequences for the quality of care and the sustainability of health systems.

Methods: This study draws on findings from three studies conducted at different system levels. (1) At the macro level of the system, we developed a holistic view of clinical genomics across Australia¹. Data came from synthesised grey and peer-reviewed literature, and interviews with nine key informants from Australian Genomics. Key stakeholders were defined including clinicians across various settings, patients, industry, research institutions, government, regulatory bodies, and consumer advocates. Interactions between these stakeholders and the constraints and enablers influencing the system were mapped. (2) At the meso level, grey and peer-reviewed literature reviews summarised genomic workforce issues across Australia, including shifting demands and capacity for genomics services, and education needs for non-genetically trained clinicians². (3) At the micro level, interviews were conducted with 23 GPs from across Australia who were involved in recruiting couples for reproductive

genetic carrier screening for the research project “Mackenzie’s Mission”³. The Theoretical Domains Framework was used to deductively analyse data to define barriers the GPs faced in offering the screening. Ethics approval was granted by Royal Childrens’ Hospital Melbourne Research Ethics Committee (HREC/53433/RCHM-2019).

Results: Findings from the systems level view of genomics were the dynamic interplay of government, professional bodies (e.g., Royal College of Pathologists Australasia) and patient advocacy groups that provided the context in which GPs were working. Key challenges were around sustainable and equitable funding of tests, and coordination of fragmented endeavours across separate sectors. At the meso level, it was recognised that GPs along with the majority of the healthcare workforce were not prepared for genomics. Classroom education was shown to be inadequate to develop the skills needed for genomic practice, and uncoordinated resource development was confusing rather than assisting. Innovative models using genetic specialists as “shepherds” of non-genetic trained clinicians are showing promise, as are nation-wide projects developing resources such as a Directory of genomic tests. At the micro level, individuals reported lack of time as a barrier to offering genomic testing, and lack of skills rather than knowledge per se. Flexible, high quality education modules, “shepherding” by genetic counsellors, and consumer facing resources (including in other languages) were seen as mitigating these issues.

Conclusion: As genomic testing becomes mainstream, a systems approach to implementation allows a holistic approach to be taken. It can also avoid unintended consequences of solutions developed in isolation.

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Disclosure of Interest: None Declared

Changes in health Insurance coverage and the utilization of Cone Beam CT; Health insurance claims data from 2013 to 2022: (2716) Jeonghye Kim

ISQUA2024-ABS-2716

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Introduction: The Cone Beam CT (CBCT) is useful for diagnosing bone changes in teeth and maxilla. Since its coverage began in 2008, it expanded to cover the sinuses, and the upper and lower extremities. As the procedure has been selected for intensive review since 2014, there have been efforts to maintain a reasonable level of its utilization, however it has been continuously on the rise in

accordance with increased coverage for implants. As such, this study is aimed to analyze the increase in health insurance coverage, the status of CBCT equipment over the past decade (from 2013 to 2022), and their utilization in the medical field.

Methods: In order to conduct the analysis, 4,782,594 patients have been selected from a pool of 5,993,172 cases that were associated with the CBCT billing codes within the health insurance claims data spanning from 2013 to 2022. The number of exams and fees were analyzed by year, age group, type of medical facility, department, and age of the equipment. The program SAS Enterprise Guide 7.1 (SAS Institute Inc., Cary, NC, USA) was used to create and analyze the datasets.

Results: The number of CBCT equipment and their medical usage has sharply increased in the past ten years due to increased coverage for their use. The number of CBCT scanners increased from 4,146 in 2013 to 16,603 in 2022, representing a yearly average increase of 16.7%. This growth rate is significantly higher than that of regular CTs (2.2%). The number of scanners per 1 million inhabitants in South Korea increased from 81.1 in 2013 to 322.8 in 2022, indicating a 3.9-fold increase. Dental hospitals/clinics own 14,921 (as of 2022) which makes up 89.9% of all CBCT scanners. In 2022, the majority of scanners in use had been operational for less than five years, accounting for 50.8% (8,442 units). However, the number of scanners aged from 10 to 15 years increased by 75.2% compared to 2013, suggesting a rise in the presence of older equipment.

CBCT exam fees rose from KRW10.9 billion in 2013 to KRW61.9 billion in 2022, reflecting a yearly average increase of 21.3%. The number of exams conducted increased from 230.5 thousand in 2013 to 1.117 million in 2022, indicating a yearly average increase of 18.9%. The number of billing institutions increased from 2,603 in 2013 to 11,501 in 2022, which is a 4.4-fold increase. Since coverage was offered for the otolaryngology department in 2015, there has been a 29.0% increase compared to the previous year; and coverage was offered for upper and lower extremities in 2016, which led to a 383.4% increase compared to the previous year. The number of implants and CBCT exams showed a high correlation coefficient of 0.93 ($p < 0.001$) since implants became billable in 2014.

Conclusion: In the unique Korean environment, where the people have easy access to dental facilities, the number of CBCT exams carried out by dental clinics, which own the majority of the scanners, increased with the rise in coverages offered. Furthermore, it is hypothesized that the increased cases of non-billable procedures (such as implants) that guarantee high profits for dental clinics are correlated with an increase in CBCT exams, though further in-depth analysis is needed to confirm this. Repeat CBCT exams increase the patients' exposure to radiation, and financial burden, therefore reasonable levels of use must be maintained. In order to achieve this, we must firstly, establish the optimal number of coverage for the exam, secondly, provide differentiated insurance fees depending on the age of the scanner, and thirdly, put in place a monitoring system and management mechanism for non-billable exams.

Disclosure of Interest: None Declared

ISQUA2024-ABS-2350

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Introduction: Citizen involvement in improving quality and safety has proven to be crucial in the healthcare. By becoming active members of the healthcare team, patients can contribute to the safety of their own care but also that of the healthcare system as a whole. Therefore, patient and family involvement has been incorporated into Resolution WHA72.6 – “Global Action on Patient Safety” and the Global Patient Safety Action Plan 2021-2030 as key strategies to move towards eliminating of avoidable harms in healthcare [1, 2]

However, to encourage full participation of citizens, it appears necessary to align knowledge and language between citizens, patients and healthcare professionals.

Safety culture has been widely studied among healthcare workers [3, 4, 5], while among citizens the research was limited to evaluate the perception about quality and safety of care. not knowledge.

The main objective of our study was to evaluate the level of knowledge about quality and safety of care in a representative sample of Italian citizens, with and without chronic pathologies, to verify whether direct experience can increase the level of knowledge

Methods: We used a semi-structured questionnaire containing 35 questions, developed using the CAWI (Computer-Assisted Web Interviewing) methodology.

Four areas of investigation: 1. basic concepts of clinical risk management.; 2. Best practices for safety; 3. Sources of information about quality and patient safety; 4. Citizen participation
Study period: 1 month.

Sample: 400 subjects with at least one serious chronic condition (patients) and 800 without (citizens). The statistical analysis was mainly descriptive. Comparisons were made between patients and citizens and within each group between different age groups, sex, geographical area and level of education.

Results: The study revealed a low level of knowledge about fundamental principles of patient safety (definition of adverse event and medical error, systemic theory of error, most common incidents in hospitals and nursing homes, etc....), and distrust about clinical trials for innovative drugs and telemedicine; better the knowledge of good practices for patient safety. No statistically significant differences about such issues have been found between citizens with and without chronic medical conditions. Structured citizen engagement in healthcare improvement is not widespread in the country, with only 11% of patients and a mere 4% of citizens having such experiences

Conclusion: To our knowledge this is the first study that explores patient safety culture among citizens. Its main finding is to have highlighted that patient safety culture is low among healthcare users and also among chronic patients. Co-producing is a scarcely diffused but interesting procedure.

It is imperative to make efforts to develop a culture of quality and safety among citizens, but also to repeat the survey in other countries, as health literacy was found to be country-linked in previous works. [6]

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Disclosure of Interest: None Declared

Feasibility and Preliminary Evaluation of Cognitive Stimulation Therapy (CST) in Elderly Patients with Mild to Moderate Dementia in KPJ Damansara Specialist Hospital: (2370) Parwathi Alagirisamy

ISQUA2024-ABS-2370

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Introduction: In Malaysia, prevalence of dementia is projected to increase from 261,000 in 2030 to 590,000 by 2050 (Alzheimer's Disease International, 2015). Memory loss, cognitive decline, comprehension problems, and behavioral abnormalities are among the effects of dementia that negatively impact patients' quality of life (Ganapathy et al., 2020). Cognitive Stimulation Therapy (CST) is a non-invasive psychological treatment recommended by the National Institute for Health and Clinical Excellence of the United Kingdom (NICE 2006) for people with cognitive impairments. The objective of this study is to assess the feasibility and preliminary effects of CST for patients living with dementia in KPJ Damansara Hospital.

Methods: A single-group pretest–posttest design was conducted to evaluate the effects of the CST programme. Participants were recruited from the out-patient geriatric clinic, KPJ Damansara Specialist Hospital, aged 60 years and over with mild to moderate dementia. The exclusion criteria included having a learning disability and diagnosed with severe depression. Informed consent was obtained from all the participants and caregivers. A total of 14 older adults participated in a 7-weeks group CST program in three cohorts from February to August 2023. Each cohort consists of 4-5 participants. CST sessions took place twice a week for 7 weeks with each session lasting 45-60 minutes. Trained CST facilitators including occupational therapist, physiotherapist and nurse delivered 14 sessions of group CST themes activities (Figure1).

At baseline, demographic characteristics were recorded. The clinical effectiveness of CST were assessed by cognitive functions (Mini Mental State Examination-MMSE), communication (Holden communication scale-HCS) and quality of life (Quality of Life in Alzheimer’s Disease-QOL-AD) (Ward et al, 2022; Yong et al 2017). Feasibility of the study included participant retention rate and program satisfaction measured at post-treatment. Data were analysed using Statistical Package for the Social Sciences (SPSS) Version 23. The paired t-test was used in accepting or rejecting the null hypothesis with p-value set at 0.05.

Results: The mean age ($\pm$ SD) of the participants was 79 ($\pm$ 5.95) years, and most of them were females (71%) and 79% were Malays (Table 1). The Paired t-test revealed MMSE mean score ($p < 0.373$) increases of one point are considered clinically significant although not statistically significant. In regards to QOL, the score change for both patient ($p < 0.066$) and caregiver ($p < 0.076$) groups showed an improvement, but the difference was too small to be statistically and clinically significant. There was a significant improvement for communication ($p < 0.006$) and across all communication subcategories: conversation ($p < 0.001$), awareness ($p < 0.001$) and communication ($p < 0.001$). The study achieved acceptable feasibility with high satisfaction (98-100%) and retention rates (100%) (Table 2).

Image:



Figure 1. Thematic Activities

Table 1. Baseline Characteristics		Table 2. Assessment of participant cognition, quality of life and communication. Pre and Post CST program			
Characteristics	N (n = 50), or % (N = 50)	Score	Pre-CST (n=49)	Post-CST (n=49)	P-value
Age (year)	79.85 $\pm$ 5.954	Mean Mini Mental State Examination Score (0-30)	21.62	22.62	0.373
Gender (%)		Mean Participant Report Quality of Life - Alzheimer's Disease (15-50)	40.75	40.22	0.066
Female	10 (71.42)	Mean Caregiver Report Quality of Life - Alzheimer's Disease (15-50)	33.27	33.48	0.076
Male	4 (28.57)	Mean Holden Communication Scale (overall)	10.71	6.16	0.006
Ethnicity (%)		Mean Holden Communication Scale - conversation	6.43	1.71	0.001
Malay	15 (75.0)	Mean Holden Communication Scale - awareness	6.36	1.87	0.001
Indian	1 (2.0)	Mean Holden Communication Scale - comprehension	2.71	1.86	0.001
Chinese	2 (10.0)				
Education (%)					
Secondary	2 (10.0)				
Primary	12 (60.0)				
Demographic status (%)					
Mild dementia	7 (35.0)				
Moderate dementia	7 (35.0)				
Severe dementia	6 (30.0)				

Conclusion: CST appeared to benefit persons living with dementia. The findings of this study provide evidence to support the use of CST as a routine program to complement those with mild to moderate dementia on pharmacological treatment in KPJ Damansara Specialist Hospital.

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Disclosure of Interest: None Declared

Human-centered Design Approach for Group Antenatal-Postnatal (ANC-PNC) improves accessibility of ANC-PNC services: (2993) Shafia Rashid

ISQUA2024-ABS-2993

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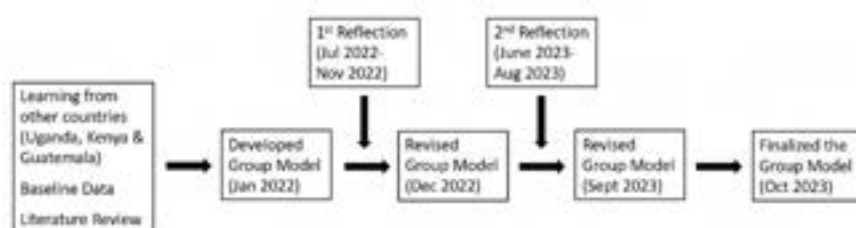
Introduction: While Bangladesh has made significant progress in key maternal, child health (MNCH) and family planning (FP) indicators in the last decade, concerted efforts are needed to reach vulnerable, marginalized populations with high-quality, responsive services. Partnering with BRAC, Scope and Population Council, MSH is co-designing, implementing, and evaluating the Healthy Women, Healthy Families (HWHF) project, which introduces a group antenatal and postnatal care (GANC-GPNC) program for young women and their partners experiencing their first pregnancy.

Methods: To develop the group model, Scope utilized Human Centered Design (HCD) to explore the experience of health services, both existing and ideal, from the perspectives of first-time pregnant women, recent first-time parents, community influencers as well as facility- and community-based ANC and PNC providers. Scope conducted 10 focus group discussions (FGDs), 27 in-depth interviews (IDIs) and 8 mock sessions with over 100 participants. After data collection, Scope, BRAC and MSH engaged

in a collaborative research synthesis process. Project staff systematically organized, analyzed, and reviewed the data to identify emerging themes. These themes were iteratively tested with users as part of co-design and subsequently the final GANC-GPNC model was developed. Implementation of the GANC-GPNC model began in February 2022. To assess implementation experience, the HWHF project co-developed monitoring indicators, supportive supervision tools, a cohort tracker, and a model fidelity checklist. Project monitoring indicators track the number of sessions conducted, number of participants, and number of facility ANC, PNC and delivery services attended. Following 6 months of implementation, Scope conducted two reflection exercises to understand group members' experiences, and opportunities to strengthen the model. Scope identified and analyzed implementation challenges during the first and second reflection exercises and adjustments were made to the model design.

Results: As of December 2023, the project enrolled 4,443 FTMs for group ANC or PNC sessions, conducted 2,221 GANC sessions for FTMs with 10,480 participants and 717 FTF GANC sessions with 3,021 participants. The project also conducted 483 GPNC sessions for FTMs with 1,645 participants and 161 GPNC sessions for FTFs with 496 Participants. HCD and model iterations during the implementation period contributed to a gradual increase in the number of participants attending group sessions. Based on data from 23 months of implementation (February 2022- December 2023) 74% of enrolled mothers attended 3 GANC sessions and 57% and 32% of enrolled women attended 4 and 5 GANC sessions. First-time fathers' participation increased by about 15% by changing the timing of sessions and location from facility to community. The number of fathers reached for the group sessions each quarter now surpasses the project target. After updating the timing of enrollment into PNC sessions to after delivery and offering group sessions in the community, GPNC attendance for FTMs increased by about 50% and continues to increase each quarter.

Image:



Conclusion: Despite initial challenges, GANC-PNC has potential to reach the most vulnerable populations with quality information and services. Capacity building of service providers, strong community engagement, and model adaptations are key for sustaining the GANC-GPNC model. A comprehensive action plan and coordinated effort from relevant stakeholders will facilitate nationwide scale.

Disclosure of Interest: None Declared

ISQUA2024-ABS-1141

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Introduction: Hospitals bear the responsibility of delivering high-quality and safe patient care services, necessitating the seamless integration of people, processes, and technology. This study addresses challenges in the pharmaceutical supplies reordering process, currently managed through a labor-intensive manual process. The overarching objective is to introduce advanced technology that enhances efficiency, eliminates errors, and ensures timely medication arrangements, reinforcing patient care within the hospital environment.

Objectives of the Project:

Automate Reordering Process:

- Implement a robust automated system.

Enhance Efficiency:

- Reduce time for generating reordering reports.

Eliminate Errors:

- Minimize errors in reorder quantity calculations.

Ensure Timely Medication:

- Procure and arrange medications promptly.

Reduce Operational Delays:

- Mitigate delays in processing and delivery.

Streamline Reordering Cycle:

- Optimize resource utilization and reduce staff workload.

Predictive Inventory Management:

- Introduce predictive analytics to prevent stockouts.

Continuous Training and Feedback:

- Implement ongoing training and feedback loops for staff proficiency.

Cultivate Continuous Improvement:

- Foster a culture of ongoing improvement within the pharmaceutical supply chain.

Achieve Breakthrough Outcomes:

- Aim for an 80% reduction in reordering time and near-zero error rates.

Sustain Excellence in Patient Care:

- Address weaknesses for sustained excellence.

Cost Reduction and Operational Efficiency:

- Enhance efficiency while reducing operational costs.

These objectives collectively aim to revolutionize pharmaceutical supplies reordering, leveraging technology for substantial improvements in patient care, efficiency, and overall hospital performance.

Methods: The PDSA methodology was the framework for this quality improvement project. It involved:

Plan:

- Identified critical improvement areas through extensive discussions.
- Defined specific goals and measurable objectives, formulating change strategies.

Do:

- Implemented changes to the manual reordering process in a controlled environment.
- Emphasized efficiency and error reduction in practice.

Study:

- Continuously monitored and evaluated revised processes.
- Utilized data collection and analysis for insights into the impact on the reordering cycle.

Act:

- Took informed actions based on findings during the study phase.
- Made adjustments and refinements to optimize the automated reordering process.

This iterative cycle continued until achieving the desired efficiency, accuracy, and timeliness in medication arrangement. The PDSA methodology ensured sustainable changes, addressing weaknesses in the pharmaceutical supplies reordering process. This systematic approach fosters a culture of ongoing improvement and adaptability within the healthcare system.

Results:**Pre-Project Situation:**

Before the project, the manual reordering process was characterized by being error-prone, time-consuming, and inefficient, taking two working days to generate reports for 70 vendors and 700 items.

Post-Project Outcomes:**1. Enhanced Efficiency:**

Automated data integration reduced the time required to generate reordering reports from two days to a matter of hours. Swift and timely procurement of medicines became possible.

2. Error Reduction:

System-driven analysis significantly reduced the chances of errors in determining reorder quantities. Overall data accuracy and supply chain reliability improved.

3. Predictive Inventory Management:

The use of predictive analytics for inventory management prevented stockouts and overstocking. Ensured optimal inventory levels at all times.

4. Continuous Improvement:

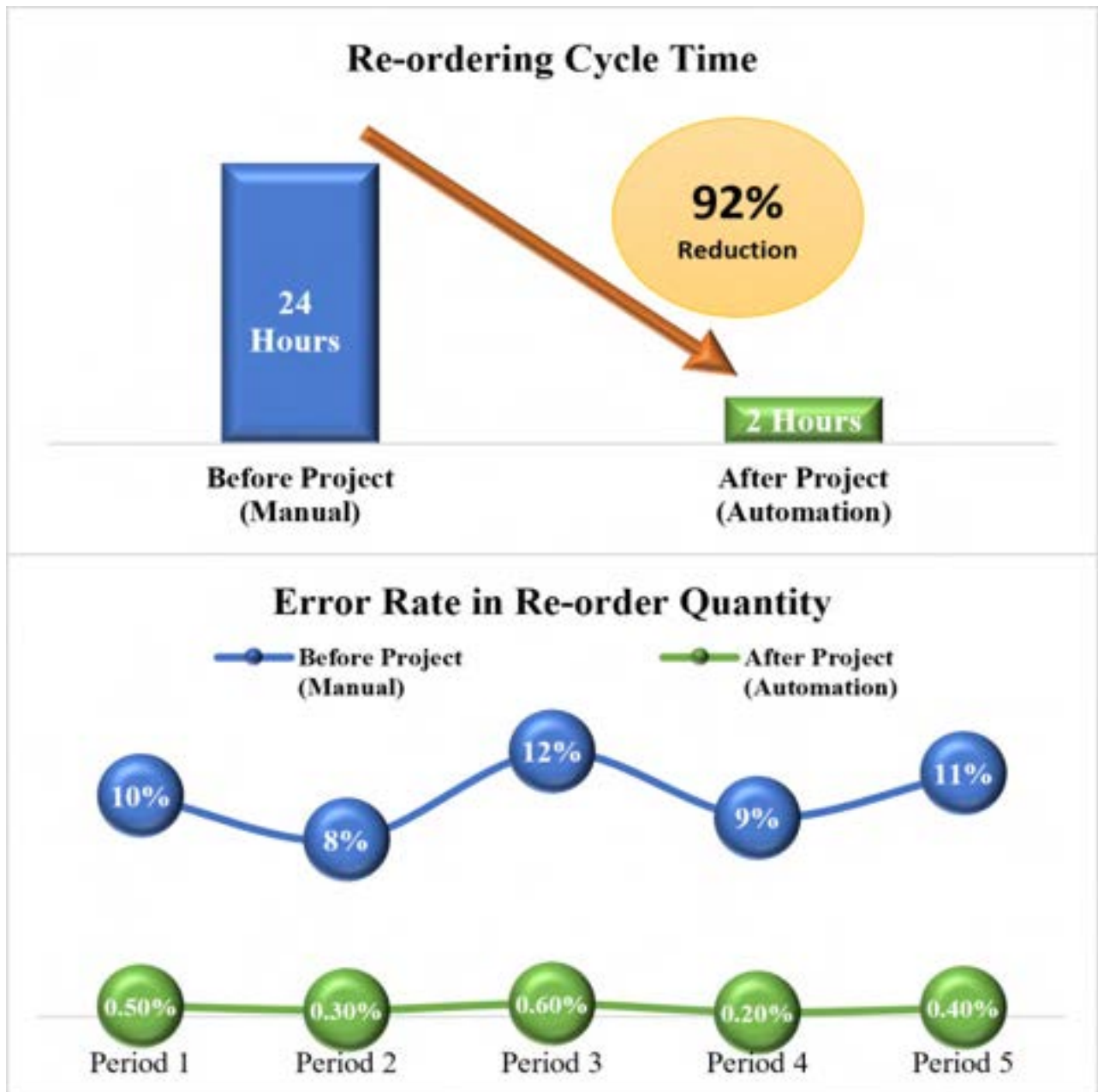
The project established a culture of continuous training and feedback, leading to ongoing staff development and system enhancements.

5. Breakthrough Achievements:

Reduced reordering time by 92%, ensuring the timely availability of medicines. Achieved a near-zero error rate in reorder quantity calculations, enhancing patient safety.

In summary, the project's detailed implementation strategies and technological innovations substantially improved the pharmaceutical supply chain, resulting in enhanced patient care, reduced operational costs, and establishing a foundation for ongoing quality enhancements.

Image:



Conclusion:

Continuous monitoring and rigorous evaluation were integral throughout and after the project's implementation, ensuring ongoing effectiveness. Regular assessments and data analysis allowed prompt responses to challenges, fine-tuning the system and securing long-term sustainability.

In summary, the project's innovative strategies and technology-driven solutions have transformed pharmaceutical supplies reordering, paving the way for sustained excellence in patient care. The commitment to continuous monitoring, training, and quality ensures the maintenance of achieved gains, demonstrating the value of embracing technology and a culture of improvement in healthcare settings.

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<https://scanco.com/4-best-practices-for-a-healthcare-supply-chain/>

Disclosure of Interest: None Declared

Lunchtime

Lightning Talks

Surveyor Training in China, moving from a National to an Internationally accredited programme

Introduction: (2695) A. LEE

ISQUA2024-ABS-2695

LEE ^{1,*}, X. XU ¹, L. YAM ¹, H. CHEN ¹, T. Fortune ¹, J. WANG ¹, Y. CHAN ¹, J. LUI ¹, C. M. LIU ¹. ¹Shenzhen Hospital Accreditation Research Center, Shenzhen, China.

Introduction: China has had a National healthcare accreditation programme since 1989. The China National 3A Hospital accreditation system (CN3A) has been a major influence on patient safety and quality improvement, therefore providing a good foundation to build an internationally recognized programme. With this goal in mind the Chinese government established The Shenzhen Hospital Accreditation Research Center (SHARC) in 2020. The International Society for Quality in Healthcare's External Evaluation Association programmes is a key lever in SHARC's strategy towards international recognition. The strategy from the outset was to achieve all 3 ISQuaEEA awards but more importantly to use these standards as the benchmark in international best practice.

The Chinese Hospital International Accreditation (CHIA) standards were accredited in February 2022. Then followed the first phase of surveyor training and 63 Founding Surveyors were trained by January 2023. Among them, 45 who had extensive experience of the CN3A system and 18 had extensive experience of the internationally accredited ACHS System.

This paper describes the second phase of the project, its objective were to

- Train a second batch of up to 40 surveyors
- Provide update training for the Founding Surveyors
- Compile all relevant policies and assessment methods into one surveyor training manual and
- Achieve ISQuaEEA accreditation for the surveyor training programme (STP).

This phase was planned to be completed by the end of 2023.

Methods: Established in 2022 the Surveyor Training and Development Team (STDT) are responsible for developing all aspects of the SHARC STP's. The STDT together with international experts conducted a

comprehensive literature search, resulting in a dearth of peer review evidence. A review of the relevant abstracts from previous ISQua conferences yielded valuable experiential learnings. A STP was then developed based on proven international experience, national expertise and principles of adult education.

The STP has 3 stages that all trainees need to attend. These include interpretation of the CHIA standards, legal requirements, assessment methodologies, risk assessment, collecting evidence and report writing skills. Only Founding surveyors (already renowned experts), are excluded from onsite practical training.

Results: There were challenges to implementing the STP's. Covid caused disruption and the date the ISQuaEEA STP evaluation had to be postponed. The second challenge was the revision of the ISQuaEEA Standards for Surveyor Training Programme from 3rd to 4th edition. This demanded revision, but also gives good guiding principles for SHARC to improve our evaluation methods especially regarding trainers.

A second batch of 36 surveyors from China, Hong Kong and Macau were trained in July 2023. In addition update training for Founding Surveyors was conducted in July and November 2023, to train them to become competent trainers and team leaders.

All STP's have been evaluated by objective and subjective methodologies. This includes evaluating both the trainers and the trainees. Over 90% of trainees were satisfied with the competency of the trainers. Some recommendations which have been implemented, included face to face rather than online sessions, ethical and legal requirements, and international accreditation methods.

The third objective to prepare a comprehensive STP manual was expediated. Following extensive stakeholder inputs, all relevant policies and assessment methods were refined and included in the STP manual, which was published in July 2023.

The 4th objective is still in progress. The results of the ISQuaEEA of SHARC STP will be available by the summer of 2024.

Conclusion: Using the ISQuaEEA standards as a framework has worked well for China. The greatest success has been achieved by utilizing the expertise of the CN3A. These Founding Surveyors have provided exemplary expertise to every section of SHARC including developing STP's, team leader, standard development and governance. Phase 3 of SHARC's international strategy is now well underway and will include training 80 or more new surveyors, continued update training and an ISQuaEEA organizational award in 2024.

References: Nil

Disclosure of Interest: None Declared

**Assessing the quality of facilities in all healthcare sectors: harmonization underway in France:
(2029) Amélie LANSIAUX**

ISQUA2024-ABS-2029

A. CHEVRIER¹, A. LANSIAUX^{2,*}, A. KHALED³. ¹Improvement in quality care and safety department, ²Improvement in quality care and safety department, ³quality of social care department, HAS, Paris, France

Introduction: HAS defines quality assessment procedures for health, social and medico-social establishments, while respecting the differences in professional approaches between the health and social sectors.

Methods: In France, all health, social and medico-social establishments are now subject to periodic quality assessment (certification for ES and evaluation for ESMS). For healthcare establishments, the level of certification has an impact on their funding, and could potentially lead to a review of their fields of activity by their regulatory authorities; for social and medico-social establishments, the assessment report conditions their authorization to operate.

While this system has existed for over 20 years in the healthcare sector, with a single set of guidelines, the social and medico-social sector was evaluated by organizations according to their own guidelines, with no uniform methodology. HAS then drew up a common reference framework for all components of the social sector (elderly people, people with disabilities, protected children, social inclusion), to be published in 2022, with application starting on January 1, 2023.

These 2 missions have been entrusted nationally to the HAS since 1999 for the healthcare sector and 2019 for the social and medico-social sector.

The HAS has homogenized the principles of these assessments, particularly in establishments combining the 2 sectors or collaborating within a mixed group of establishments, and thus facilitated the appropriation of the approach to quickly focus on the expected requirements.

Results: These 2 missions have been entrusted nationally to the HAS since 1999 for the healthcare sector and 2019 for the social and medico-social sector.

The HAS has homogenized the principles of these assessments, particularly in establishments combining the 2 sectors or collaborating within a mixed group of establishments, and thus facilitated the appropriation of the approach to quickly focus on the expected requirements.

Each of the manuals is transparent in terms of assessment methods, enabling facilities to conduct their own self-assessments. Each reference manual is divided into 3 chapters: "The Patient" - "The Care Teams" - "The Hospital" for the health sector, and "The Person" - "The Professionals" - "The Institution" for the social sector.

Evaluations are carried out using the same methods, with a field-focused approach to professionals and users: patient or accompanied tracer / targeted tracer / system audit.

The respective priority orientations nevertheless respect the specificities of each:

- for the healthcare sector: patient involvement/culture of relevance and outcome evaluation/teamwork/adaptation to changes in the healthcare system
- for the social sector: the individual's power to act/respect for fundamental rights/inclusive approach to support/ethical reflection by professionals.

Conclusion: In France, since 2022, quality assessment systems with adapted content but similar appropriation are applicable to all healthcare establishments:

2,400 healthcare establishments, with 1,160 accreditation visits and decisions carried out by the end of 2023

40,300 social and medico-social establishments and services, with 3,028 assessments carried out by the end of 2023.

References: Manual HAS - Certification of hospitals for the quality of care

Manuel HAS - Référentiel d'évaluation de la qualité des établissements sociaux et médico-sociaux. (Quality assessment guidelines for social and medico-social establishments.)

Disclosure of Interest: None Declared

The Impact of the Co-Production Model on the Health Accreditation Process in Brazil: (3030) Ana Carla Restituti

ISQUA2024-ABS-3030

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Introduction: Co-production is emerging as a promising approach to enhance and revolutionize the way healthcare organizations and accrediting agencies interact and collaborate. Instead of a one-way approach, co-production involves active partnership among stakeholders, resulting in accreditation or certification that is more relevant, effective, and focused on the value added to the patient and their ecosystem. In this context, an accreditation project coupled with an integration and monitoring method encourages active participation of individuals in a knowledge-sharing process, prioritizing their needs, preferences, and concerns regarding the effectiveness of their performance in achieving the expected outcome. The American Accreditation Commission International – AACI Brazil has innovated by redesigning contemporary practices of accreditation or certification programs and has developed an operational mode of more inclusive content and greater value for the goals of its client organizations. A professional called the Client Manager, who manages the client relationship, has been introduced into the operational model. Additionally, the use of computerized tools enables the tracking of accreditation project progression. This model allows for closer collaboration between the accrediting agency and healthcare institutions, facilitating the exchange of knowledge and experiences throughout the accreditation project, monitoring improvement plans, and their performance. Objective: To assess the impact of co-production on accreditation for managers, active leaders in the accreditation project in 5 healthcare institutions that are clients of AACI Brazil.

Methods: After 6 months of Client Manager follow-up, a standardized questionnaire was administered with questions evaluating the role of the client manager and the operational model with the following dimensions: trust, engagement, interpretation of standards, engagement, and assessing the impact of the model for the project. Ethical considerations, including informed consent and protection of participant confidentiality, were ensured throughout the study.

Results: The research results indicate a positive perception regarding the role of the Client Manager in AACI Accreditation, with generally high averages (ranging from 4.3 to 4.6 on a scale of 1 to 5). The majority (75%) of respondents would recommend the co-production model to other institutions. Job positions vary, with a predominance of coordinators and team leaders. Respondents' experience in the institution is diverse, with good representation across all lengths of service. Major backgrounds include nurses, physicians, and administrators, reflecting team diversity.

Conclusion: The results suggest a positive perception regarding the role and performance of the Client Manager in the AACI Accreditation process, as well as a general acceptance of the adopted co-production model. The impact of co-production on health accreditation is evident in transforming processes that were previously merely descriptive into something recognizable and truly transformative. This collaboration-centered approach, valuing the experiences of all involved parties, represents a significant shift in how accreditation is perceived and implemented, offering tangible opportunities to drive excellence and effectiveness in patient care.

Disclosure of Interest: None Declared

Enhancing Pediatric Healthcare Quality and Safety: A Case Study of International Accreditation Implementation in Iashvili Children's Central Hospital, Tbilisi, Georgia: (2335) Lela Tsakadze

ISQUA2024-ABS-2335

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Introduction: Georgia is developing country with developing healthcare industry. To stimulate the sector and improve patient safety and quality, Ministry of, Health of Georgia issued an order with subject: From January 1, 2025, an institution that has obtained international accreditation shall be defined as a provider of medical services. Main criteria to choose the Accreditation Agency for Iashvili Children's Central Hospital were the following: identifying and mitigating all risks to achieve continuous improvement in quality and safety of young patients. American Accreditation Commission International (AACI) is one of the world's most experienced organization and following/implementing their standards is a commitment to high-quality, safety and affordability. Main goal of the hospital and AACI coincides with each other: "Reduce risks and save lives". To mitigate risks AACI standard suggests

implementing Risk Register Form. The process is divided into several steps. The paper describes positive impact of international accreditation on every-day-life treatment and analysis main challenges faced during the implementation process. Introducing an Incident Report Form and Risk Committee is a new beginning for Georgian reality to guarantee high quality and safety of patients.

Methods: Risk Register form is established in the hospital. The study and performance evaluation includes the patients who have incidental cases during the treatment process. Any hospital employee who discovers or directly experiences an incident, reports about it to the Patient Safety Officer. After discovering or receiving information about an incident, an appropriate Incident Report Form is filled out. A confidential incident report must be completed for each reportable incident occurring in any department of the hospital. A retrospective study is used for the analysis. Descriptive statistics and corrective action plans were applied to analyze recorded incidents, offering a comprehensive overview of the incident trends over time. Reporting form includes 12 case-oriented questions.

Results: Over the course of the study period from June to December, a total of 21 incident reports were documented. The current analysis highlights that the hospital successfully identified and addressed risks, with a noteworthy observation that the highest number of incident reports occurred in the initial month of implementation. Specifically, 8 incidents were reported during this period. As a direct result of risk mitigation efforts, the hospital implemented a fall risk assessment system, bed rails, and other safety measures. Patients with a history of suicide attempts were assessed as high-risk and recruited along with a parent. Prior to the introduction of these forms, only post-exposure treatment was reported.

Conclusion: Introducing and implementing Risk Register and Incident Report Form marked a significant shift from the previous practice, effectively improved medical services, staff involvement in processes (additionally, special trainings for the staff were implemented to increase their knowledge and experience), multidisciplinary approach and the main impact is on patient safety and quality of care

References: 1. Braithwaite, J., Westbrook, M., & Travaglia, J. (2008). Attitudes toward the large-scale implementation of an incident reporting system. *International Journal for Quality in Health Care*, 20(3), 184–191. <https://doi.org/10.1093/intqhc/mzn004>

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Disclosure of Interest: None Declared

Exploring Quality of HA standards: An Observational Study of HA Scoring Guidelines and Standards Compliance Evaluation in Thailand: (2793) Piyawan Limpanyalert

ISQUA2024-ABS-2793

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Introduction: The Healthcare Accreditation Institute (HAI) in Thailand has recently introduced the 5th edition of hospital and health service standards (HA Standard) along with corresponding guidelines, known as HA Scoring Guidelines, in October 2022. These tools aim to assess compliance with established HA standards and foster quality development within healthcare organizations. Notably, the HA Standard Edition 5th obtained international standard certification from ISQuaEEA in February 2022. Despite these advancements, challenges regarding the reliability of accreditation programs persist, particularly amid ongoing standards reforms. This study seeks to evaluate the implementation of the HA Scoring Guidelines one year after transitioning from the guidelines of the HA Standard Edition 5th. The objective of this study is to document the phenomena observed during survey visits regarding the utilization of HA scoring guidelines for assessing adherence to HA standards and to provide insights into the validity and reliability issues associated with HA scoring guidelines through observational analysis.

Methods: A phenomenon observation study characterized by a descriptive approach. This included keeping records and looking into things that were seen at different stages, such as survey visits, post-survey focus group discussions with two different surveyor teams, and the medical anthropology researcher observing without taking part as part of phenomenological inquiry. We observed two surveyor teams visiting to qualify the interviews and analysis in the same hospital. The researcher collected scores and dialogue between surveyors for analysis to evaluate the validity and reliability issues within three primary dimensions: 1) fact-finding, 2) analysis, and 3) scoring interpretation. Surveyors with equivalent knowledge and years of experience were divided into two groups:

- Team A: comprised true surveyors conducting authentic surveys following standard procedures.
- Team B: consisted of experimental surveyors conducting comparative surveys, shadowing Team A. They reviewed the same hospital self-assessment, attended meetings, and conducted on-site surveys alongside Team A without providing suggestions. Their evaluations were based solely on the evidence collected during the evaluation process.

Results: Finding indicated similarities between both surveyor teams in fact finding and analysis, with discrepancies in scoring interpretation due to the abstract nature of the standards and unclear explanation of HA scoring criteria.**Phenomena Result:**

During the survey discussions and scoring process, several key phenomena were observed in the dynamics influencing validity and reliability.

1) **Relationships and Relationship Management:** Observations revealed both formal and informal relationships between individual surveyors, potentially limiting their ability to express independent

opinions about ratings. These pre-existing dynamics among team members may influence the scoring process and the level of agreement reached during evaluations.

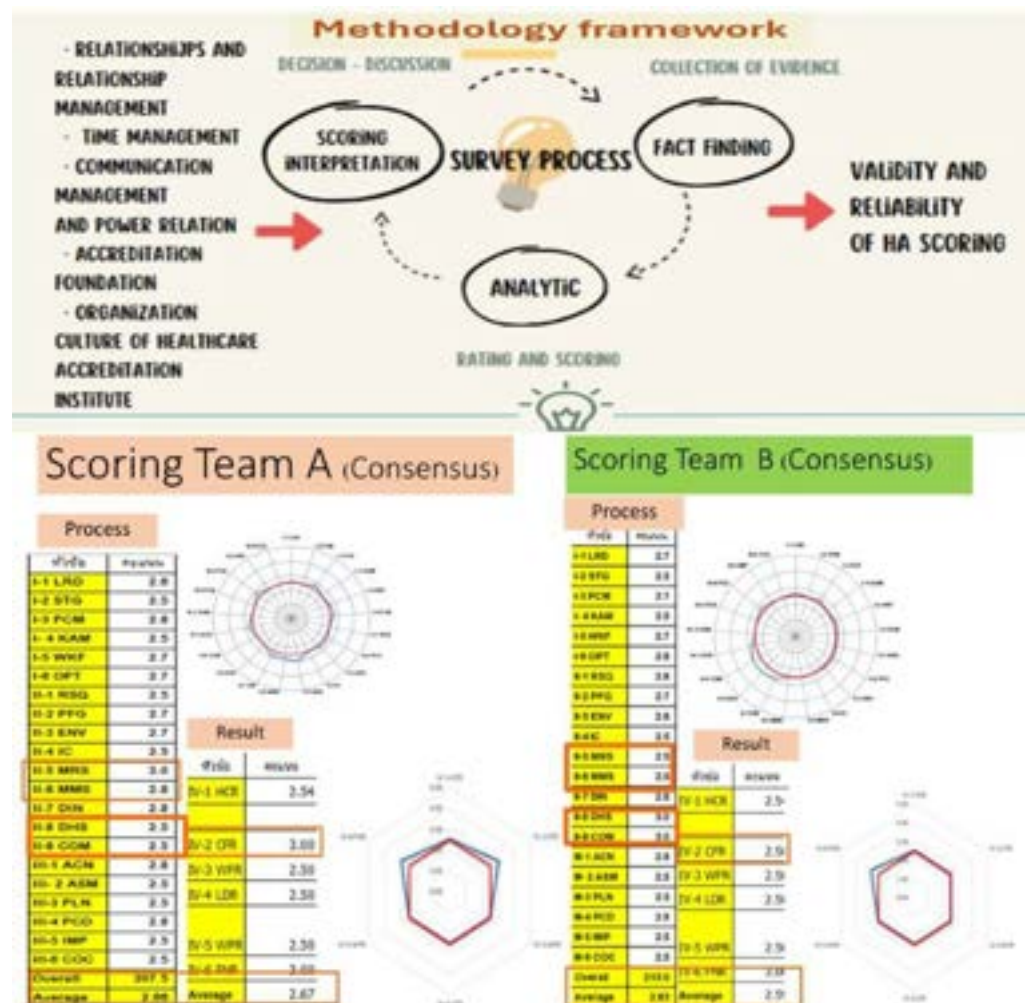
2) Time Management: With a relatively limited time allocated for each visit to collect evidence and finalize scores, there were challenges in adequately exploring and documenting information necessary for scoring. The time pressure may have led to incomplete assessments or reliance on incomplete evidence, affecting the accuracy and reliability of the scores assigned.

3) Communication Management and Power Relations: Effective communication between surveyors and hospital staff is crucial for accurate assessments. Observations highlighted the presence of power dynamics between surveyors and the hospital staff, impacting the scoring process. Clear communication, particularly regarding the HA scoring criteria, could potentially mitigate these power imbalances and enhance the reliability of evaluations.

4) HA Accreditation Foundation Principle Impact: The principle that "HA is an Education Process" influenced the surveyors' approach during visits, focusing on fostering learning and knowledge exchange. Transitioning from the previous version of HA scoring to a new model requiring deeper integration and analytical connection with HA standards posed challenges. The observed impact of this transition on team dynamics and scoring practices underscores the importance of aligning scoring methodologies with accreditation principles.

These phenomena highlight the multifaceted nature of the scoring process and underscore the need for addressing organizational, interpersonal, and procedural factors to enhance the validity and reliability of evaluations in healthcare accreditation settings.

Image:



Conclusion:

1. Scoring for quality certification varies with hospital context and timing, hindering direct comparisons.

2. Future efforts aim to enhance HA scoring's validity and reliability by adjusting methods, clarifying standards, and fostering supportive cultures. Despite ongoing HA standards reforms, challenges to accreditation reliability persist. Evaluating program validity and reliability during new standard implementations is crucial. Diverse surveyor perspectives could enhance credibility. Achieving HA scoring reliability remains a goal.

3. Moving forward, efforts will focus on enhancing HA scoring's clarity, relevance, and analytical rigor for improved assessment confidence and reliability.

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2. Healthcare Accreditation Institute, Thailand. HA Standard, 5th edition. Available on <https://www.ha.or.th> (Thai version). For English version, please contact wiyawwan@ha.or.th

Disclosure of Interest: None Declared

ACE (awareness compliance & excellence) for CSSD at a tertiary care facility: (2966) Shweta Prabhakar

ISQUA2024-ABS-2966

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Introduction: In response to the recent findings from the JCI exit survey and the detailed self-assessment of the Central Sterile Supply Department (CSSD) conducted according to guidelines from organizations such as AAMI, APSIC, and CDC, it has become evident that there are significant gaps in the standardized CSSD processes and adherence to uniform practices. The reports from recent external surveys have underscored the pressing need for improvement in CSSD operations to ensure patient safety and quality care.

The primary aim of this initiative is to address the deficiencies identified in the CSSD processes and achieve consistent adherence to uniform practices across the hospital, encompassing not only the CSSD itself but also extending to areas such as operating theaters by -

1. Enhance Compliance: Increase compliance with recommended guidelines for CSSD processes and practices to ensure the safety and efficacy of sterilization procedures and equipment handling.
2. Standardization: Implement standardized CSSD processes and protocols to streamline operations, minimize errors, and improve efficiency in sterile supply management.
3. Education and Awareness: Enhance staff awareness and understanding of CSSD protocols and best practices through comprehensive training programs and educational initiatives.
4. Continuous Improvement: Establish a culture of continuous improvement within the CSSD and related departments, fostering a proactive approach to identifying and addressing areas for enhancement.
5. Achieve 100% Compliance: Strive to achieve a compliance rate of 100% with recommended CSSD guidelines by April 2023.

To accomplish these objectives, the hospital plans to implement the ACE (Awareness, Compliance & Excellence) program by 3M, which focuses on raising awareness, enhancing compliance, and driving excellence in CSSD operations. Through targeted interventions and ongoing monitoring, it is anticipated that CSSD process compliance will increase to over 90% by the specified timeline, contributing to the overall improvement of patient care outcomes and organizational performance.

Compliance with CSSD practices was assessed using a self-assessment checklist, which consisted of a questionnaire with 78 questions on the current CSSD practices and daily protocols. This checklist was formulated based on the CSSD guidelines from AAMI, APSIC, CDC, etc.

Compliance:- Increased compliance score by 10%.

Excellence:- Recognized as the Best CSSD in the North Zone for outstanding CSSD practices at CAHOCON 2023.

1. Implemented direct surveillance by CSSD staff in areas outside of CSSD where cleaning and decontamination processes occur.

2. Successfully established a uniform CSSD process across the entire hospital.

3. Continuously monitoring the cleaning and disinfection processes in areas outside of CSSD and working towards implementing the ACE program to ensure consistent and standardized practices throughout CSSD.

[illegible]

Conclusion: The lack of uniform adherence to CSSD practices poses significant challenges to patient safety and quality of care. To address these issues, the hospital has initiated the ACE (Awareness, Compliance & Excellence) program in collaboration with 3M, aimed at promoting consistent

adherence to CSSD guidelines and achieving excellence in CSSD practices. Through this program, all staff members have been trained on CSSD basics and advanced modules, leading to a notable increase in compliance scores and significant progress towards achieving our goal of over 90% compliance by April 2023.

Furthermore, the recognition received as the Best CSSD in the North Zone at CAHOCON 2023 serves as a testament to our commitment to excellence in CSSD practices. However, the journey towards sustained improvement does not end here.

The key lessons learned include the importance of department ownership, the need for enhanced skilling and continuous quality improvement of technical staff, and the necessity of effective monitoring mechanisms to identify and address process gaps on a regular basis.

References: Reference CDC guideline —.

Reference JCI Std 7th Edition compliance requirement wrt Std -PCI-6-

Disclosure of Interest: None Declared

Impact of the OECI Designation and Accreditation Program on the Arturo Lopez Perez Foundation (FALP), Chile: (2220) Silvia Basso

ISQUA2024-ABS-2220

S. Basso^{1,*}, R. Morales¹. ¹Instituto Oncológico Fundación Arturo López Pérez, Santiago, Chile

Introduction: FALP is a private non-profit cancer institute located in Santiago, Chile. The institute is accredited by the Superintendencia de Salud (Health Superintendence) through a periodic evaluation process, ensuring compliance with minimum standards set by the Ministry of Health to guarantee quality and safety in patient care.

In 2018, FALP became an Associate Member of the Organisation of European Cancer Institutes (OECI), aiming to engage with leading European institutes and adhere to international standards of excellence in oncology.

Methods: In 2019, FALP conducted a comprehensive gap analysis to evaluate its compliance with the requirements of the OECI Accreditation and Designation (A&D) Programme. The results drove the development of multiple improvement plans aimed at addressing identified shortcomings.

The process commenced in 2021 with the official application to the A&D Programme. Throughout 2022, FALP completed a detailed self-assessment, and in March 2023 FALP received a peer review conducted by an auditor team appointed by the OECI Board aimed at verifying the compliance with its standards.

Results: The overall improvement percentage from the gap analysis conducted in 2019 to the final report, a result of the peer review process conducted in 2023, was 44.06% (increasing from 33.04% to 77.10%). In Table 1, a chapter-wise breakdown illustrates the improvement achieved during the reference triennium.

In particular, the A&D Programme has facilitated the development of essential areas for the quality and safety of care, addressing aspects where Chile faced cultural lag.

Four aspects in which the accreditation process has allowed FALP to become a pioneer in the country:

1. the development of a cancer registry and an intuitive visualization system that enables the Foundation's Board to make decisions regarding the trajectory of cancer in the country, guiding choices related to regionalization;
2. the introduction of the patient empowerment concept, leading to the creation of the "Department of Education and Health Participation" and the establishment of the "Patient and Family Council". The goal is to provide recommendations for the development of educational programs and engagement initiatives for patients and families;
3. the definition of prevention and early detection programs. FALP has created a "Department of Prevention and Early Detection" with the goal of establishing institutional policies for screening and early detection and collaborating in defining public policies aimed at improving the management of the sector in the country;
4. the definition of clinical pathways for all treated tumors and the establishment of precise monitoring of waiting times to ensure timely and safe care for patients.

In addition to that, the work carried out for OECl accreditation has allowed FALP to reorganize the Research Department and embark on a path to become a leader in cancer research. Illustrating recent achievements, publications surged by +206% from 2019 to 2023.

FALP became the first OECl Cancer Centre in Latin America.

Image:

Chapter	% Compliance 2019	% Compliance 2023	Delta
1. Governance	45,45	81,82	36,36
2. Organisation of quality systems	44,90	78,85	33,95
3. Patient involvement and empowerment	28,95	55,26	26,32
4. Multidisciplinarity	18,52	82,14	63,62
5. Prevention and early detection	30,77	61,54	30,77
6. Diagnosis	28,95	75,00	46,05
7. Treatment	42,11	84,21	42,11
8. Research	9,43	79,25	69,81
9. Education and training	55,56	78,55	23,39
	33,04	77,10	44,06

Conclusion: The results highlight an overall improvement in process organization and data management, enabling FALP to develop deficient areas not only within the hospital but also at national level. This accreditation has placed a strong emphasis on the continuous improvement of processes as well as of clinical areas, in terms of outcomes, survivorship, quality of life and satisfaction.

Disclosure of Interest: None Declared

Pros and Cons of Survey Report Verification and Strategy for Improving The Effectiveness of It: (3029) Yael Esthi Nurfitri Kuncoro

ISQUA2024-ABS-3029

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Introduction: The Indonesian Government established a new policy of accreditation for primary healthcare and developed a system for the process called SINAF (National Information System for Accreditation of Health Service Facilities). Different from before, every survey report should undergo a verification process conducted by verifier of the accreditation body. The verification results of survey report will be used by the chairperson of the accreditation body in making recommendations for determining accreditation status. Expectation of this new system did not meet due to several limitation. The accreditation body took the initiative to develop several strategy to improve the effectiveness of the verification process. This study aims to determine the pros and cons of survey report verification and which strategy is the best to improve the effectiveness of it.

Methods: Pre-experimental study was conducted for 6 months. The sample of study were 150 verification report. Data were obtained from SINAF. Feedback from verifiers and surveyors were also analyzed. A set of strategy based on ongoing analysis were implemented during 6 months. Five indicators were used to measure the effectiveness of the implementation of the strategies

Results: There were 150 samples (7% of total reports in 6 months) used. Based on the first analysis, we conducted the first strategy that is setting a guideline for survey report dan two weekly knowledge sharing for 2 months. Based on the following analysis, we conducted the second strategy at the beginning of the fifth month, that is sending a personal feedback based on the verification report. The decrease of gap of accreditation status indicator are 16.6%, 15%, 4.3%, 3.3%, 0%, 0% respectively. The decrease of gap of score indicator are 2.8%, 3.1%, 2.2%, 2.1%, 1.9%, 1.04% respectively. The decrease of nonconformity of writing fact indicator are 14.4%, 9.8%, 10.2%, 7.4%, 4.3%, 3.1% respectively. The decrease of inaccuracy of score indicator are 11.6%, 13.3%, 13.7%, 10.7%, 9.7%, 5.5% respectively. The decrease of nonconformity of recommendation to meet the requirement of standar indicator are 12.8%, 11.8%, 13.2%, 10.8%, 9.7%, 5.6% respectively. From the feedback collected, showed that the pros of survey report verification were improvement of the quality of survey reports, error reduction, complaint reduction, enhance decision making and improvement of surveyors competencies. The cons of it were cost, time consuming and inability of SINAF to provide feedback.

Conclusion: Significant decrease of all indicators were shown after the implementation of sending a personal feedback as the second strategy. There were more pros than cons of Survey Report Verification in improving the quality of survey process and report.

Disclosure of Interest: None Declared

The advantages and weaknesses of providing 13 Accreditation Organizing Institutions for Community Health Centres: Indonesia experience: (3233) Yanti Herman

ISQUA2024-ABS-3233

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Introduction: The Ministry of Health has made it mandatory for every health service facility in Indonesia, including Community Health Centres, to take concrete steps to enhance the quality of their health services. The best way to achieve this goal is through accreditation. The Ministry of Health is responsible for implementing this accreditation process with the support of 13 Accreditation Organizing Institutions (LPA). The LPA is primarily responsible for conducting accreditation surveys that surveyors carry out. The involvement of 13 LPA is crucial in accelerating the accreditation process, which must be completed by 2024. Given the high number of Community Health Centres in Indonesia, which is 10,416 and the starting point of a survey that was conducted in May 2023, the participation of 13 LPA is extremely essential. However, there are some issues with the implementation of this accreditation process.

The objective of this study is to explore the potential advantages and challenges of implementing accreditation for Community Health Centres, with a focus on the involvement of 13 Accreditation Organizing Institutions.

Methods: An assessment was conducted to evaluate the implementation of accreditation surveys by 13 Accreditation Organizing Institutions from May 2023 to January 2024. The analysis was focused on the advantages and the weaknesses of the accreditation process carried out by these institutions. Samples were taken from all Community Health Centres that had registered in the DFO application and were accepted by the LPA. The assessment was conducted by processing data obtained from the National Accreditation Information System (SINAF) and DFO applications. This data included information about accreditation results, institutions conducting surveys, number and location of surveyors. Additionally, feedback such as complaints, suggestions, and criticism received by the Ministry of Health via letters, e-mail, WA, and other complaint channels was also reviewed.. The data obtained from the assessment were analysed descriptively to obtain an overview of the advantages and disadvantages of implementing accreditation by 13 LPA.

Results: The advantages of having a Community Health Centre accredited by 13 LPA are numerous. Firstly, it helps to speed up the achievement of accreditation targets. Currently, there are a total of 10,145 Community Health Centres targeted for accreditation, and as of January 2024, 8,196 of them have already been accredited. This is a significant accomplishment, with 80% of the Community Health Centres already accredited. This accomplishment supports Indonesia's Medium Term Development Plan, which targets a 90% accreditation rate for primary healthcare.

One of the most significant advantages of having 13 accredited health centres in Indonesia is their strategic distribution across the country.

It's beneficial to have 13 Accreditation Organizing Institutions as it increases the number of surveyors available for conducting surveys. These surveyors are spread throughout the area, making the

accreditation process more efficient and effective. By January 2024, all institutions will have 6,000 surveyors available to conduct surveys.

It should be noted that the institution's implementation process for accreditation has some weaknesses. The scores obtained by the Community Health Centres from the accreditation survey do not always match the conditions in the field. Surveyors may give higher scores to Community Health Centres to gain their trust. Consequently, most Community Health Centres receive a *paripurna* score, which is the highest score possible, reaching almost 70%.

There are certain issues related to surveyors who have a varying degree of competencies. This has been identified as one of the causes of inaccurate accreditation assessments, leading to less precise results. This there are diverse surveyor abilities, although modules and curricula have been published as standards for the implementation of training for surveyors. This affects the value of the results received by the Community Health Centre, as the quality of the surveyors can vary.

The next issue that needs to be addressed is related to the status of the surveyors. Almost 70% of the surveyors are civil servants who work at Community Health Centres, District/City Health Office, and Provincial Health Office. However, there are limitations to the involvement of civil servants in carrying out accreditation surveys. This is due to the absence of their attendance when conducting the survey.

.Additionally, a conflict of interest often arises in conducting surveys due to the accreditation implementation policy. These issues need to be addressed to ensure that the accreditation process is fair, transparent, and reliable.

Conclusion: The implementation of Community Health Centre accreditation involving 13 Accreditation Organizing Institutions is undeniably advantageous. It accelerates the achievement of accreditation targets, ensures wider coverage of accreditation throughout Indonesia, and significantly increases the number of surveyors who will conducting accreditation surveys. However, weaknesses in the system must be acknowledged to prevent any discrepancies. The mismatch between the scores obtained by the Community Health Centre from the accreditation survey and the actual conditions in the field, variable competency of surveyors attributed to diverse training programs, risk of employee disciplinary violations due to absenteeism from work, and potential conflicts of interest during the survey process must be addressed promptly to ensure the effectiveness and fairness of the accreditation system.

References: Undang-Undang Nomor 17 Tahun 2023 tentang Kesehatan ;

Peraturan Menteri Kesehatan Nomor 34 tahun 2022 tentang Akreditasi Puskesmas, Klinik, Laboratorium Kesehatan, Unit Transfusi Darah, Tempat Praktek Mandiri Dokter dan Tempat Praktek Mandiri Dokter Gigi ;

Keputusan Direktur Jenderal Pelayanan Kesehatan Nomor Hk.02.02/I/3991 /2022 tentang Petunjuk Teknis Survei Akreditasi Pusat Kesehatan Masyarakat, Klinik, Laboratorium Kesehatan, Unit Transfusi Darah, Tempat Praktik Mandiri Dokter, dan Tempat Praktik Mandiri Dokter Gigi

Disclosure of Interest: None Declared

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Introduction: Personality characteristics affect individuals' behavior within the organization. From the perspective of accreditation surveyors, the harmony, interaction, communication and cooperation of health accreditation surveyors (HAS) with each other affect the success of the survey. Therefore, it is important to identify personality traits and create compatible teams. The aim of this research is to determine the personality characteristics of HAS, according to the Five Factor Theory of Personality and to reveal whether their personality characteristics differ according to some variables.

Methods: This study is descriptive and cross-sectional. While the population of the study consists of 134 HASs, the sample consists of 68 HASs who agreed to fill out the personality inventory scale. Data were collected through the The Big Five Inventory Scale. Descriptive statistical methods (frequency, percentage, median, interquartile range) and statistical analyzes were used when evaluating the study data. Mann-Whitney U and Kruskal-Wallis tests were used to compare groups of independent variables. The statistical significance level was determined as 0.05. Descriptive statistics and statistical analyzes were carried out using the Statistical Package for the Social Sciences (SPSS) 26.0 program.

Results: A total of 68 HASs participated in the research. Of the participants in the study, 54.4% were women, 73.5% were married, 57.4% were 46 years old and over, and 42.6% had a doctorate degree. It was determined that 51.5% of the participants had 6 years or more of experience in the field of quality and 42.6% had 20 or more quality surveys.

The median and interquartile range values of the participants' responses to the statements in the sub-dimensions of "The Big Five Inventory Scale" are 30.0 (27.0-32.75) for the sub-dimensions "Extraversion" and 39.0 for "conscientiousness". (37.0-41.0), 37.0 (35.0-39.0) for "agreeableness", 39.0 (36.25-42.0) for "Openness" and 17 for "Neuroticism", It was found to be 0 (14.0-19.75). It can be said that the scores of the participants in the subscales of "The Big Five Inventory Scale" were high, except for the "Neuroticism" dimension. According to the results in question, it can be stated that HASs are extroverted, responsible, easy-going, open to experience and low levels of neuroticism.

Mann-Whitney U and Kruskal-Wallis analyzes were used to evaluate whether the scores obtained by HASs from "The Big Five Inventory Scale" sub-dimensions varied according to gender, marital status, age, educational status, length of experience in the quality field and the number of quality surveys performed. It was determined that women's scores on the "extraversion" and "neuroticism" subscales were higher according to gender and the results were statistically significant. According to marital status, it was determined that the score of single people in the "responsibility" sub-dimension was statistically significantly higher than that of married people. No statistically significant difference was found according to age, educational status, length of experience in the quality field and the number of quality surveys performed.

Conclusion: As a result of the research, it was determined that HASs are extroverted, responsible, easy-going individuals who are open to experience, that the "extraversion" and "neuroticism" aspects of women predominate, and that the responsibility feature comes to the fore in unmarried HASs. It is

thought that forming survey teams by taking into account the personality and demographic characteristics of surveyors will increase team harmony and support survey success.

Disclosure of Interest: None Declared

Ethics and Health Accreditation Standards in the Era of Artificial Intelligence: (3204) Zuhâl Cayırtepe

ISQUA2024-ABS-3204

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Introduction: The rapid proliferation of artificial intelligence applications in the field of healthcare raises ethical concerns. Accreditation standards in healthcare, which serve as important tools in ensuring quality and patient safety, should incorporate regulations for managing ethical concerns. The aim of this study is to evaluate the readiness of accreditation standards that could contribute to managing potential ethical issues in the provision of AI-based healthcare services, based on the key ethical principles adopted by the World Health Organization (WHO) regarding the use of artificial intelligence technologies in healthcare, and to identify areas that require improvement.

Methods: The study was conducted as a descriptive and explanatory case study. The Healthcare Accreditation Standards Hospital Set (v3.0/2021) of the Türkiye Healthcare Quality and Accreditation Institute which holds international accreditation, was used in the study. All accreditation standards and assessment criteria in the set were evaluated within the framework of WHO six key ethical principles, and document content analysis was conducted using the MAXQDA qualitative analysis program.

Results: As a result of the study, it was determined that updates and additions should be made through regulation to 35 assessment criteria for the protection of human autonomy, 39 for the promotion of human well-being, safety, and public interest, 43 for ensuring transparency, explicability, and intelligibility, 62 for fostering responsibility and accountability, 24 for ensuring inclusivity and equity, and 19 for promoting responsible and sustainable artificial intelligence, all based on WHO ethical principles. Additionally, it was found that new standards and assessment criteria are needed for ensuring data privacy and security, algorithmic transparency and explicability, fairness and bias reduction, robustness, and reliability.

Table 1: Evaluation according to SAS sections according to "WHO basic ethical principles on the use of artificial intelligence in health"

SAS Sections	WHO Key ethical principles for use of artificial intelligence for health

		Protect autonomy (n)	Promote being, human safety the interest (n)	Ensure well- transpare ncy, explainabi lity and public intelligibili ty (n)	Foster responsi bility and accounta bility (n)	Ensure inclusiv ness and equity (n)	Promote artificial intelligence that responsive and sustainable (n)
Organizational Structure	1	3	3	5	1	1	
Core Policies and Values	1	1	1	4	5	3	
Document management	2	2	2	1	0	0	
Human Resources Management	2	2	2	5	4	3	
Adverse Event Reporting System	1	1	1	3	0	2	
Risk Management	1	1	1	5	0	1	
Education Management	1	1	1	3	0	3	
Corporate Communications	1	1	1	0	3	0	
Monitoring Indicators	0	1	1	6	0	2	
Basic Patient Rights	6	4	8	6	3	0	
Patient Safety	1	2	2	3	0	2	
Access to Service	0	0	0	0	0	1	
Medication Management	2	2	2	0	0	0	
Patient care	2	2	2	4	1	0	
Radiation Safety	1	1	1	0	0	0	
Laboratory Services	2	3	3	0	0	0	
Safe Surgery	4	4	4	1	0	0	
Emergency Health Services	4	4	4	0	0	0	
Facility Management	0	1	1	0	0	0	
Information Management	1	1	1	5	5	0	
Material & Device Management	1	1	1	7	0	0	
Outsourcing	0	0	0	3	2	1	
Emergency Management	1	1	1	1	0	0	

TOTAL	35	39	43	62	24	19

Conclusion: In conclusion, while existing accreditation standards can be a valuable assessment tool in preventing ethical issues and reducing concerns arising from the use of artificial intelligence in healthcare, it can be said that some updates and improvements are needed.

Disclosure of Interest: None Declared

Co-production and implementation of a handbook for the primary healthcare centers quality documentation: (3001) Wafa Allouche

ISQUA2024-ABS-3001

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Introduction: INEAS is the Tunisian national healthcare accreditation body. It develops healthcare accreditation standards but also supporting tools that help healthcare centers meet the standards. The development process always involves professionals and stakeholders. A handbook for the primary healthcare centers quality documentation was developed according to this process and made available. A survey was conducted to study the utility, relevance and impact of this handbook on 11 centers which are pilote sites of a national program for primary healthcare promotion. The aim of this paper is to highlight the result of the handbook co-production, its implementation and impact on preparing 11 primary healthcare centers for accreditation and the level of professionals' satisfaction of this handbook.

Methods: The handbook for the primary healthcare centers was developed in a collaborative method. A member of the accreditation department coordinated the process. Two senior healthcare experts elaborated the handbook first draft. The accreditation department team provided a first reading. Then the handbook draft was submitted to multidisciplinary health professionals for comments and advice according to a reading grid. The experts collected the feedbacks, which were used to adjust the handbook draft. A meeting involving the two experts, the accreditation department team, multidisciplinary healthcare professionals and the different stakeholders was held to finalize and approve the handbook final version. The handbook was published at the INEAS web site. By the same time, as a part of a national program for primary healthcare promotion, 11 primary healthcare centers were selected to get a specialized assistance, from primary healthcare experts, in order to be accredited. The handbook was used as a main tool for supporting them. Two surveys were conducted to evaluate the utility, relevance and impact of the handbook perceived by each center professionals

and each expert. In each center the team organized a meeting to get general agreement of the answers to submit. In the two surveys, the overall satisfaction from the handbook was evaluated.

Results: The Handbook was composed of 17 procedures and 9 instructions. They appeared in the order of appearance in the INEAS primary health care accreditation standards. Regarding the first part dealing with management the procedures concerned two areas: human resources' management and the material resources management. For the second part all the procedures were related to quality and risk management. Regarding the third part dealing with patient care the procedures concerned four areas: Patient record, access and continuity of care, specific patient care and management and dispensation of drugs and medical devices. The handbook was used by 3 primary healthcare experts to assist 11 centers belonging to 3 different types and 8 different regions. 217 multidisciplinary healthcare professionals worked with the handbook recommendations. In only one center, the team found that the handbook was not easy to use and in 3 centers the 3 teams found that it wasn't easy to adapt to their context. 54.5% of the centers considered that the handbook helped them to develop their quality documents. The most used documents were the procedure of document management (100%), the adverse event management instruction (100%) followed by the proactive risk management instruction (90%). 63.6% of the centers were satisfied with the handbook and 36.4% were partially satisfied. The 3 assistant experts found the Handbook relevant, understandable, and easy to use. They reported that they were satisfied from the handbook which helped them to prepare the centers for the accreditation. Each one of them gave suggestions to develop other supporting tools (develop: a guide for center project elaboration, a guide for clinical practices evaluation etc.). The experts and the centers' professionals recommended actions to improve the handbook (Simplify some procedures; add: Pain screening, assessment and monitoring procedure, Crisis and disaster management procedure etc.).

Professionals' profiles per healthcare center type

Profile	Healcare basic center (9)	Intermediate center (1)	Mother and infant protection center (1)	Total/Profile
Physician	26	2	1	29
Pharmacist	1	0	0	1
Nurse	75	14	3	92
Caregiver	16	0	0	16
Senior technician	25	5	1	31
Midwife	9	1	1	11
Administrator	12	0	0	12
Workman/woman	22	2	1	25

Image:



★ Distribution of the Primary Healthcare Centers per Region

Conclusion: This study highlighted the collaborative process of the handbook development and its implementation experience in different contexts which gave rise to various interactions and perceptions. The surveys' feedbacks would be beneficial for improving the handbook next version. Other supporting tools could be developed to help the primary healthcare centers to get involved in a quality initiative and prepare the accreditation.

This handbook concept, could be applied to the hospitals and other healthcare facility types.

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Disclosure of Interest: None Declared

ARTIFICIAL INTELLIGENCE IN HEALTHCARE: ADVANCING PATIENT EXPERIENCE AND OPERATIONAL EFFICIENCY: (1182) Ahmed G. Newera

ISQUA2024-ABS-1182

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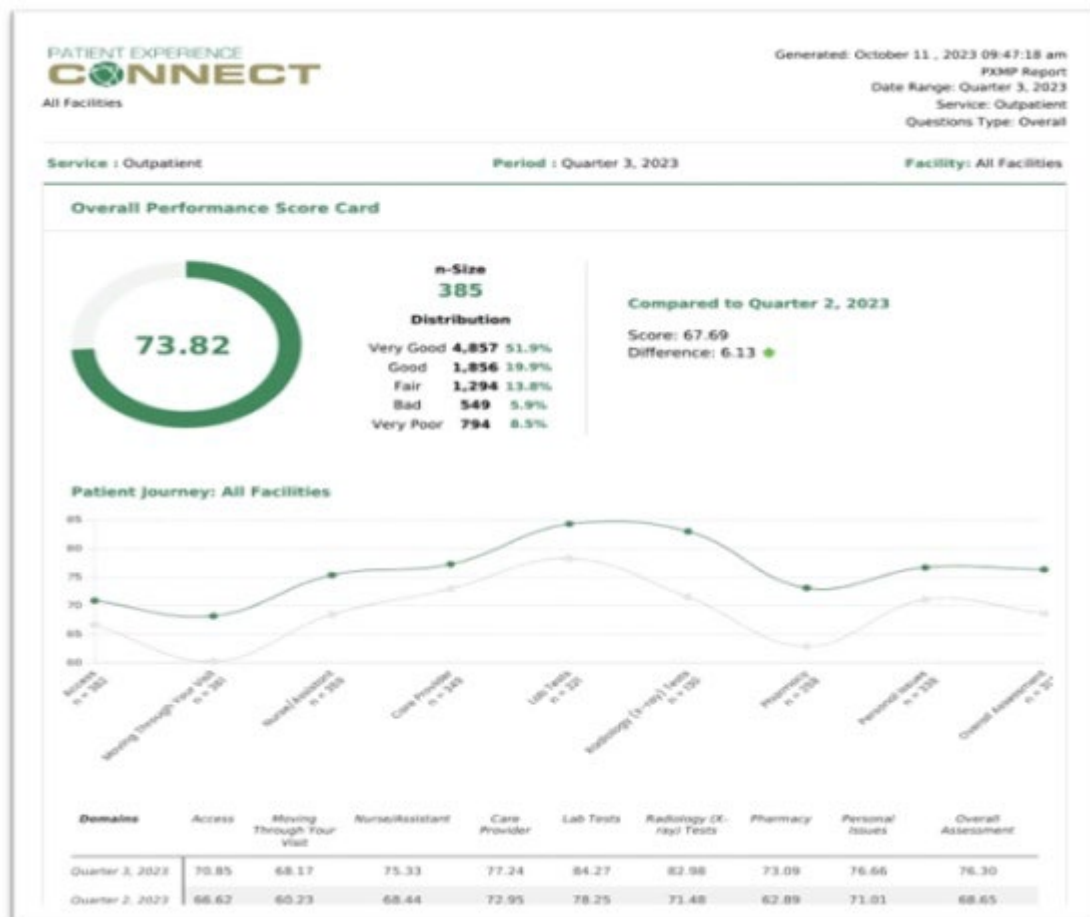
Introduction: "No Show" appointments have been a significant concern in healthcare, affecting scheduling and overall system efficiency. The prime objective for healthcare providers is to offer an exceptional patient experience to ensure quality care. By May 2023, the "No Show" rate at Prince Sultan Military Hospital Clinics was a concerning 30%, peaking at 65% in specific clinics. Concurrently, the highest recorded patient satisfaction was only 69%, dropping to 64% in the first quarter of 2023.

The Prince Sultan Military Hospital Clinics suffered from continuously high "No Show" rates and less-than-ideal patient satisfaction scores. This compromised the hospital's operational efficiency and indicated possible gaps in patient communication, engagement, and, thus, healthcare quality.

Methods: To combat this, the hospital turned to technology, specifically the potential of artificial intelligence (AI) in healthcare. Key strategies included sending WhatsApp appointment reminders and providing clear instructions on what to expect during visits. Additionally, an AI-driven Chatbot was integrated into the hospital's official WhatsApp, designed to give details on over 80 services at the clinic and provide round-the-clock support and information. Initially tested in the family medicine department, the interventions successfully expanded to all Outpatient Department (OPD) clinics. The goal was to decrease the "No Show" rate from 30% to 20% and raise patient satisfaction from 67% to 72% within three months.

Results: The AI integration produced significant improvements. By the third quarter of 2023, the patient experience score was raised from 67.6% to 73.8%. The "No Show" rate also showed marked improvement, dropping from 30% in May 2023 to 19.8% by September 2023.

Image:



Conclusion: Prince Sultan Military Hospital Clinics's success underscores AI's transformative role in modernizing healthcare operations and patient experiences. Implementing AI strategically in appointment systems and patient services can drastically enhance patient experience, refine operational workflow, and reduce the impact of "No-show" appointments. Future steps include incorporating AI into the broader hospital appointment system and official website and expanding the project nationally.

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Disclosure of Interest: None Declared

Communication during telemedicine consultations in general practice: Perspectives from general practitioners and their patients: (1722) Amy Nguyen

ISQUA2024-ABS-1722

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Introduction: Telemedicine encompasses the use of telecommunications technologies to deliver healthcare services and has transformed healthcare delivery, enabling remote consultations, monitoring, and treatment. The COVID-19 pandemic significantly accelerated the adoption of telemedicine, particularly within general practitioner (GP) clinics, serving as a critical tool to ensure continuity of care while minimising the risk of virus transmission. The transition to telemedicine has presented challenges in effective communication. Currently, there is a lack of comprehensive support and guidance in this area. Clinicians have primarily relied on trial and error and ad hoc web resources to navigate telemedicine interactions. The shift from in-person consultations to telephone or video calls for delivery of clinical care can have a substantial impact on patient satisfaction and clinical outcomes.

The aim of this study was to explore perspectives of GPs and patients on the interactional components of telemedicine (both telephone and videoconferencing modalities) consultations.

Methods: Semi-structured qualitative interviews were held with telemedicine users; 15 GPs and nine patients self-selected from a larger telemedicine study. An open-ended interview guide was used to support the semi-structured interviews, which allowed participants to direct the interview within their experiences of telemedicine. Interview topics included preparing for telemedicine consultations, the conduct of the consultations as well as post-consultation activities. Deidentified transcripts from the interviews were analysed thematically.

Ethics for this research was granted by Macquarie University Human Research Ethics Committee.

Results: The 15 GPs and nine patients that participated discussed many aspects of telemedicine, being both telephone and videoconferencing modalities, during the interviews. GPs and patients discussed factors they used to decide whether a consultation would be best conducted by telemedicine or in-person, including the condition to be discussed, the existing doctor-patient relationship and whether physical examination was required. For example, telemedicine was seen as a convenient consultation method for simple indications where no physical examinations are needed. Participants also described how they prepared for their telemedicine consultations by gathering relevant documents and reading previous clinical notes. Participants described strategies they employed to optimise the telemedicine interaction; improving conversational flow and building rapport, such as using small talk, asking questions to confirm understanding and providing verbal reassurance of their presence during the call. It was stated that telemedicine facilitated safety netting between GPs and patients, through remote triaging to minimise unnecessary in-person presentations, whilst allowing patients to receive adequate and timely care, and provide understanding of when they need to follow-up.

Conclusion: Patient factors including health literacy and familiarity with technology affect the transfer of information shared during telemedicine consultations and consideration of these factors when choosing patients for telemedicine is required. Many GPs and patients have innate communication skills to effectively deliver and receive care through telemedicine. However, they may not be aware of these subconscious techniques to use to optimise telemedicine consultations.

Telemedicine offers great opportunities for convenient and effective healthcare. The learnings from the forced use of telemedicine during the COVID-19 pandemic, where both clinicians and patients discovered that they could communicate effectively using technology, show that the use of telemedicine is likely to remain but may still be in its fundamental stages. As its use increases, it could perhaps be time to challenge some long-held conventions not supported by research evidence, to expand the breadth of telemedicine. There is an opportunity to optimise telemedicine with formal training in the techniques identified in this study. By following the communication principles garnered from this study, including rapport building, attention to conversational flow and facilitation of safety netting, general practice telemedicine consultations can be optimised for effectiveness and patient safety.

Disclosure of Interest: None Declared

Comparison of Treatment Discontinuation Risk Between Oral Medication and Long-Acting Injectable in Schizophrenia : Using PSM and IPW: (2672) Kyungmi Kim

ISQUA2024-ABS-2672

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Introduction: Schizophrenia affects approximately 24 million patients worldwide, and treatment methods include medication therapy and psychotherapy. There are two types of medication therapy: oral medication taken daily and long-acting injectable antipsychotics administered once, which provide sustained drug effects. Schizophrenia management particularly emphasizes relapse prevention, as the first relapse rate within five years after initial recovery is notably high at 81.9%. Specifically, discontinuation of antipsychotic medication increases the risk of relapse by 4.9 times. Prodromal symptoms or signs of relapse may not be apparent or may manifest subtly, and in cases of relapse, reintroducing treatment medication may restore symptoms to a level similar to the initial stage. However, one in six patients may experience treatment failure despite medication adherence. Consequently, despite the importance of antipsychotic medication therapy and continuous relapse management in schizophrenia, there is a considerable rate of medication discontinuation. To investigate whether there is a difference in the risk of medication discontinuation between oral medication and long-acting injectable antipsychotics in patients with schizophrenia, statistical analysis was conducted.

Methods: To determine whether there is a difference in the risk of medication discontinuation between oral medication and long-acting injectable antipsychotics, we conducted Kaplan-Meier Survival Curve and Cox Proportional Hazard Model analyses. To mitigate bias due to confounding variables between the oral medication and long-acting injectable antipsychotic groups and adjust for effects, Propensity Score Matching (PSM) and Inverse Probability Weighting (IPW) were performed. Subsequently, Kaplan-Meier Survival Curve and Cox Proportional Hazard Model were fitted. PSM and IPW are analytical methods used as causal inference techniques to minimize bias from confounding variables, balance covariates between comparison group patients, and create a situation similar to that of a randomized controlled trial study. (In observational studies, treatment methods vary depending on the baseline characteristics of patients, and unmeasured confounding variables exist, making it difficult to accurately measure the effects between comparison groups.)

Results: (unadjusted model)

To compare the risk of treatment discontinuation between medication types (oral medication vs. long-acting injectable), we conducted Kaplan-Meier Survival Curve analysis. The results showed that patients receiving long-acting injectable antipsychotics had a lower risk of treatment discontinuation compared to those taking oral medication, and this difference was statistically significant with $p < 0.0001$. Subsequently, when performing the Cox Proportional Hazard Model, the hazard ratio (HR) for treatment discontinuation in the long-acting injectable group compared to the oral medication group was 0.56, indicating a lower risk of treatment discontinuation in the long-acting injectable group, and this was statistically significant (95% Confidence Interval, CI: 0.47-0.66).

(PSM adjusted model)

Using propensity score matching (PSM) with a 1:1 nearest neighbor matching ratio, we matched 9,646 subjects before matching to 358 subjects after matching. After PSM, when assessing the risk of treatment discontinuation based on medication type, Kaplan-Meier Survival Curve analysis revealed that the long-acting injectable group had a significantly lower risk of treatment discontinuation compared to the oral medication group. Additionally, when applying the Cox Proportional Hazard Model, the risk of treatment discontinuation in the long-acting injectable group was 0.61 times lower

than that in the oral medication group, with a statistically significant result (95% CI: 0.48-0.79, $p<0.001$).

(IPW adjusted model)

To address the extreme weighting that may occur when applying inverse probability weighting (IPW) to propensity scores, we conducted stabilization of IPW and performed truncation to exclude patients with excessively small or large weights. Subsequent Kaplan-Meier Survival Curve analysis showed that the long-acting injectable group had a significantly lower risk of treatment discontinuation compared to the oral medication group, with $p=0.0012$, indicating statistical significance. Furthermore, when considering weights and applying the Cox Proportional Hazard Model, the risk of treatment discontinuation in the long-acting injectable group was 0.62 times lower than that in the oral medication group, with a statistically significant result (95% CI: 0.54-0.72, $p<0.001$).

Image:

Comparison of medication discontinuation risk according to the Cox Proportional Hazard Model(Summary)

	N	HR (95% CI)	P-value
Unadjusted	9,646	0.56 (0.47-0.66)	<0.001
Adjusted			
PS Stratification			
Subclass1	3,216	0.43 (0.16-1.16)	0.096
Subclass2	3,215	0.50 (0.30-0.83)	0.008
Subclass3	3,215	0.60 (0.50-0.73)	<0.001
Pooled	9,646	0.61 (0.51-0.73)	<0.001
PS Matching	358	0.61 (0.48-0.79)	<0.001
IPW (Weighting)	9,454	0.62 (0.54-0.72)	<0.001

Conclusion: Using nationwide health insurance data that all citizens of South Korea are obliged to enroll in, we investigated whether there is a difference in the risk of medication discontinuation between patients with schizophrenia who were prescribed oral medication and those who received long-acting injectables in outpatient settings. Through propensity score matching (PSM) and inverse probability weighting (IPW) analysis to adjust for confounding variables and achieve covariate balance, we found that the risk of medication discontinuation for long-acting injectables was lower compared to oral medication, and this difference was statistically significant. In summary, our findings suggest that long-acting injectables may be a more favorable choice over oral medication when aiming to minimize the risk of medication discontinuation among outpatient schizophrenia patients. Recently, South Korea has been expanding health insurance coverage for long-acting injectables to improve treatment persistence among patients with schizophrenia. The results of this study, which demonstrate a lower risk of treatment discontinuation with long-acting injectables compared to oral medication, align with the direction of health insurance policy in the country.

Disclosure of Interest: None Declared

Patient Perspective of the Clinical Learning Environment: (1877) Nancy Koh

ISQUA2024-ABS-1877

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Introduction: The Accreditation Council for Graduate Medical Education (ACGME) accredits all postgraduate medical education programs for physicians in the US. The ACGME's Clinical Learning Environment Review (CLER) Program conducts periodic site visits to the hospitals and other clinical sites that serve as clinical learning environments (CLEs) for more than 150,000 postgraduate physicians in training. Between October 2023-April 2025, the CLER Program is implementing a special protocol designed to understand the patients' perspective of the CLE, including their experiences with postgraduate physicians.

Specifically, the protocol is exploring how patients (1) perceive health care is delivered in a respectful environment; (2) know the physicians who are taking care of them; (3) receive care that incorporates the views of culturally diverse patient populations; (4) perceive care provided is patient centered; (5) receive clear and consistent information from the healthcare team about their plan of care; (6) know how to and are able to express their concerns regarding care provided by the healthcare team; and (7) know how and are able to express their concerns regarding the well-being of their physicians and its potential impact on their care.

Methods: For this special protocol, the CLER Program is conducting site visits to a stratified random sample of 25 clinical sites that collectively oversee 1,171 ACGME-accredited post-graduate residency programs and 15,021 postgraduate physicians in training. These visits primarily involve brief interviews with patients in their inpatient rooms. The visits also include a meeting with the institution's leader responsible for patient experience as well as interviews with postgraduate physicians and nurses on clinical units about their interactions with patients. All visits are conducted using a standardized, structured questionnaire with open-ended questions that allow for richer discussions and in-depth understanding of the experiences and perspectives of patients. The information obtained from these visits will contribute to a national report of aggregated de-identified data regarding patient experience in teaching hospitals and medical centers.

Results: Several early findings are emerging from the visits to date, such as: (1) many patients do not appear to know the attending physician in charge of their care and they vary in the way they identify their physician, including by name and physical description; (2) when patients are able to identify the attending physician in charge of their care, few are able to identify the postgraduate physician(s) assisting the attending physician; (3) a limited number of patients appear to understand the structure of their physician team and the roles within the clinical care team; (4) while patients generally indicated that their doctors go over their plan of care in a way that they can understand, there were patients who also noted experiencing a doctor leaving their room before they understood the plan and asking their nurse for further explanation; (5) on occasion, patients indicated there were times when they felt

there was a lack of coordination between their doctors in planning their care; and (6) some patients indicated not knowing how to report or express concerns about their care.

Conclusion: The patient perspective is integral to attaining a more comprehensive understanding of the CLE by looking at various aspects of patient experience in terms of patient safety, health care quality, professionalism, and other areas of focus that impact patient care. The findings that emerge from this special protocol will highlight opportunities to better shape and improve the CLE to optimize the learner experience and patient care.

Disclosure of Interest: None Declared

THE USE OF THE UNIMETRICS PLATFORM – MANAGEMENT INFORMATION CLASSIFICATION MODULE (CIG) FOR COSTS, RESULTS AND QUALITY MANAGEMENT IN HEALTH INSURANCE COMPANIES IN BRAZIL, 2019 TO 2023: (1921) Fabio Leite Gastal

ISQUA2024-ABS-1921

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Introduction: UNIMED Cooperative System, founded in São Paulo in 1967, is the biggest medical cooperative system in the world. It is composed of nearly 350 cooperatives and is the biggest player in the Brazilian health insurance private market, being responsible more than 20 million lives, nearly 40% of the market. UNIMED Faculty is the academic branch of the UNIMED System and offers undergraduate, postgraduate, consultancy and data analysis and technological services for the UNIMED System. In Brazil, in the second half of 2023, almost 89% of the health insurance companies' revenues were spent paying health care providers. Alongside the provided services quality, costs are one of the sector's biggest challenges. To compare healthcare services provided to clients in terms of costs, results, and quality, it is necessary to classify health care episodes in terms of complexity. There are well-established initiatives in the world, such as the Diagnostic Related Groups (DRG), which have a cost and implementation time that may not be accessible for many health services in developing countries.

Methods: Develop and implement a health care classification model that uses administrative data from paid bills to classify the complexity of all health care episodes, hospital, outpatient, and home based, allowing the comparison of costs, results and quality among different providers, companies and geographic regions in Brazil. Methodology: the algorithm set was developed by a multidisciplinary team in a large health insurance company in Brazil and was implemented by the development team and by UNIMED Faculty in other small, medium, and large companies of the UNIMED System, receiving the name UNIMETRICS – Management Information Classification Module (CIG).

Results: Until the beginning of 2024, the algorithm system processed 977 million records of paid bills since January 2019. Information from 7.5 million different customers was analyzed, totaling 71.6 billion reais in healthcare expenses (approximately 14.5 billion US dollars in January 2024), classified into 141

million care episodes, including 2.5 million hospitalizations, 138 million outpatient visits and 464 thousand home visits. The maximum time for returning results after receiving the database is 90 days and monthly updates occur on average within five business days after receiving the data. Analytics are presented in importable files and dynamic panels, which can be customized by the clients themselves.

Conclusion: The UNIMETRICS - CIG proved to be a viable and effective alternative, both from the time and cost point of view, for classifying health care based on administrative data, therefore contributing for better cost management and results and quality improvement in Brazilian private health care system.

Disclosure of Interest: None Declared

Lessons of the NuRS study. Reflections and approaches from a multi-centre big data study in the NHS: (2928) Sarahjane Jones

ISQUA2024-ABS-2928

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Introduction: Big data has been lauded for the past decade as the panacea to the struggles of modern healthcare delivery (Hinton 2019). With deep-learning neural networks and similar AI driven technologies offering to improve the efficiency of our staff – it is only a matter of time until the same technologies are applied to operational data. While the algorithms and methodologies needed to carry out such predictive analytics are available, the challenges that presents themselves are of data, namely – the governance, quality, consistency, and timeliness of our operational data sets (Gerke 2020).

This session aims to share the trials and tribulations, and successes of a data driven study aiming to examine to what extent routinely collected observational data from Trusts with the NHS can be accessed by a research team to investigate staff retention and hospital safety.

Methods:

The process of data extraction was broken down into 5 key stages:

Initial discussion to achieve local approvals

Stakeholder discovery/ engagement

Application of data extraction protocols

In-trust data manipulation to remove identifiability risks

Transfer and quality assurance

Results: Amongst the key challenges faced in extracting large volumes of data – the inherent unease around data sharing proved the most cumbersome and timely. Despite receiving national level

approvals from the national health research regulator (the Health Research Authority) whose responsibility was to ensure the legality of the study including data protection compliance, each Trust wanted to perform their own independent information governance procedures. Another challenge was the availability of appropriately skilled staff to support in the extraction, alignment and anonymisation of the dataset using software such as R or Python.

The majority of Trusts had 1-2 individuals with strong familiarity of the different systems of interest, resulting in mounting delays should there be instances of sickness or leave. Notably, this particular workforce had little experience in supporting research projects and prioritisation was often low, further exacerbating delays. The research team worked to supply as much information on how to extract the data to ease workload pressures including writing the scripts, providing videos on how to navigate the software and being available during extraction to take calls.

Conclusion: The promise of big data analytics to patch over problems in our healthcare service is not impossible. The data, knowledge, and methods needed do exist and staff have the capability and competence to drive projects forwards. However, work to include research support in business intelligence teams into business-as-usual work loading would benefit research projects seeking to access routinely collected data, moving towards an infrastructure similar to that of clinical research. Efforts to centralise routinely collected data are underway and welcome but won't necessarily include staff administrative data, which would mean this study would still have required data from local providers.

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Disclosure of Interest: None Declared

Patient-Centric Efficiency: Accelerating Discharge Processes for Enhanced Healthcare Satisfaction: (3069) Shoaib Hassan

ISQUA2024-ABS-3069

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Introduction: This project focuses on an in-depth review of the dynamics of the lack of efficiency in discharge processes at Evercare Hospital Lahore, Pakistan. Aiming to review the trends and potential bottlenecks affecting discharge procedures which took more than 240 minutes per patient. The problems were as follows:

1. Manual initiation of discharge orders by doctors.

2. Manual clearances were being taken by a porter from inpatient departments which consumed more than 120 minutes and included:

1. Nursing clearance and medication return,
2. Pharmacy billing of medical and surgical,
3. Operating rooms procedure charging,
4. Blood bank clearance,
5. Food service & lab/Radiology clearance.

3. Due to the unavailability of porters for clearances sometimes, the discharge process was further delayed.

4. Manual billing consumes more than 120 minutes per patient.

5. Low patient satisfaction in the discharge process.

Methods: Plan: Considering the problems identified, it was decided to develop a discharge module for automating the processes and bringing efficiency. The following were the objectives:

1. Discharge through system.
2. Automate clearances through the system.
3. Systematic billing.

Do: In January 2023, the HIMS admission and discharge module was implemented which included the digital transformation of the discharge and billing process. The features integrated were as follows:

1. Discharge request through the system.
2. Digital documentation by Doctors and Nursing.
3. Billing of medical and surgical through the system.
4. Clearances from various departments in the system.
5. Automation for finalizing bills at the billing office.

Check: As the system was being implemented, several observations were shared by the end user to improve the overall processing:

1. Exclusion of departmental clearances e.g. food service, lab & radiology, OR, and Blood bank as those can be automated.

2. Process flow changes in discharge initiation. Rights are given to medical officers for initial documentation.

3. Gaps identified in procedures charging. Validation tools were missing, resulting in double charging, or sometimes missed procedure charging.

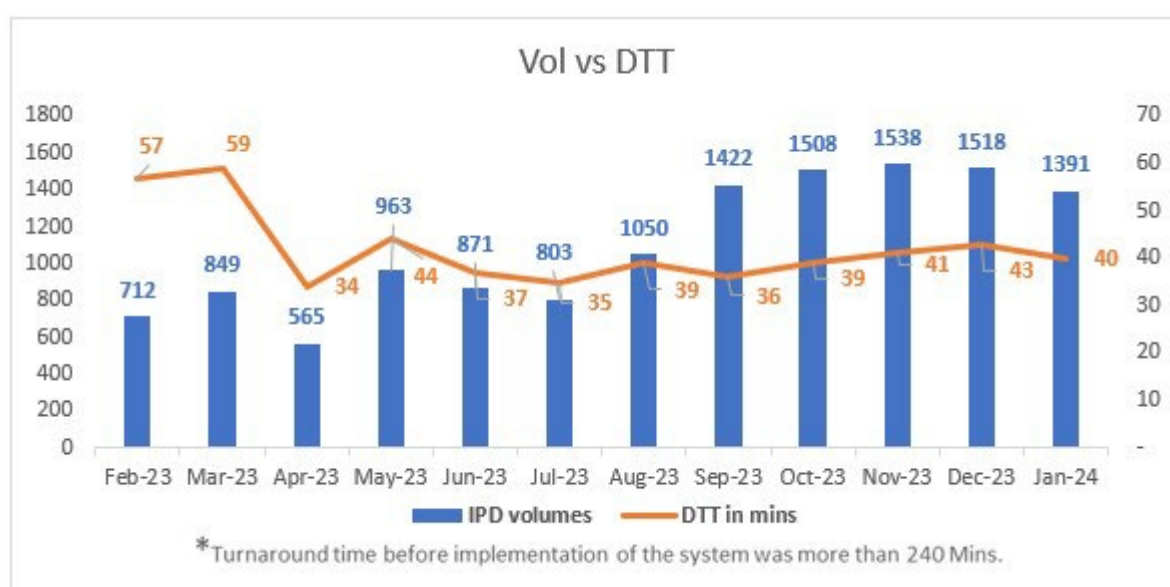
4. Inaccuracy in pharmacy charging due to systematic communication errors between HIMS and ERP systems (3rd party).

5. Resulting in Inaccuracy in overall billing.

Act: With consistent integrations of changes in the system, the outcomes were beyond expectations. The discharge process was successfully automated and KPI monitoring was done through a dashboard to improve the overall patient experience (Increased patient satisfaction, and decreased complaints). Interventions were also being made. In line with positioning hospital SOPs that focus on improving patient satisfaction, which will help the hospital move towards JCIA.

Results: With the system implementation, the discharge turnaround was successfully minimized from up to 4 hours to under 45 minutes. This significant change resulted in more than 88% of patient satisfaction in the hospital's discharge process. Eventually, the impact can be seen from the increase in the number of inpatient admissions.

Image:



Conclusion: Significant improvements in various key areas were seen after the successful implementation of HIMS. The integration had a positive impact on discharge turnaround time, and improved patient satisfaction levels resulting in a substantial increase in inpatient admissions.

While concluding this phase of the project, the next phase was already aligned as the team was gearing up to develop a corporate module to automate insurance patients' billing, and to develop an ERP system to centralize the pharmacy charging system.

The HIMS integration has provided a more patient-centered approach to care, with enhanced communication, coordination, and engagement throughout the entire discharge process.

Disclosure of Interest: None Declared

The Effect of Education Given With The Teach Back Method on Chemotherapy Symptom Management and Quality of Life: A Randomized Controlled Trial: (3107) Belkıs Güllü Gücüyener

ISQUA2024-ABS-3107

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Introduction: The education that patients will receive with the Teach-Back method provides an opportunity for them to be involved in the decision-making process in many issues such as the preparation of care plans and to receive more medical advice from healthcare professionals. The objective of this study was to assess the impact of patient education utilizing the Teach-Back technique on chemotherapy symptom management and quality of life. The study aims to contribute to the development of more effective care and education models for cancer patients.

Methods: This randomized controlled trial was conducted at the chemotherapy unit of Istanbul Private Anadolu Medical Center Hospital from June 2022 to May 2023. Participation in the study was voluntary. The researchers distributed the Participant Information Form, Edmonton Symptom Diagnostic Scale (ESDS), and EQ-5D Quality of Life Scale to patients receiving chemotherapy treatment. Participant Information Form includes 18 questions regarding the patient's age, gender, marital status, smoking and alcohol habits, occupation, education level, chronic disease status, and prior knowledge of chemotherapy.

Results: The study involved 80 volunteers undergoing chemotherapy treatment, with 40 in the intervention group and 40 in the control group. Although there were statistically significant differences between the intervention and control groups in terms of age, education level, occupational groups, and the presence of a caregiver, there was no difference in the quality of life scores of both groups measured before chemotherapy. This suggests that these different characteristics do not affect the quality of life in patients. Although the intervention group had lower scores, the EQ-5D quality of life scores increased as the number of cycles increased in both groups. It is believed that chemotherapy treatment has negative consequences on individuals and has a significant negative effect on their quality of life. When comparing the total scores of the Edmonton Symptom Diagnostic Scale, it was observed that the scores of individuals in the intervention group were statistically significantly lower than those in the control group after the 1st, 2nd, 3rd, and 4th cycles.

Conclusion: While there are numerous studies in the literature that utilize the Teach-Back method, there is a lack of resources regarding cancer patients undergoing chemotherapy treatment. Upon examination of existing studies, it was found that positive results similar to those obtained in our study were achieved. Our study concluded that patient education utilizing the Teach-Back method effectively manages chemotherapy symptoms and improves quality of life.

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Disclosure of Interest: B. Güllü Gücüyener Other: No conflict of interest between the authors

Enhancing Clinical Outcomes in Diabetic Kidney Disease (DKD) through Risk Prediction and Case Management in Patients with Diabetes: (2143) Mao Cheng-Hsien

ISQUA2024-ABS-2143

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Introduction: The incidence and prevalence of end-stage renal disease (ESRD) in Taiwan have persistently ranked among the world's highest for over a decade, with Diabetic Kidney Disease (DKD) being the primary cause. DKD presents a critical microvascular complication of diabetes. Our goal is to efficiently monitor DKD progression by integrating an information alert system and implementing targeted interventions. Additionally, we leverage machine learning to develop a predictive model for DKD onset within three years of a Type 2 Diabetes Mellitus (T2DM) diagnosis, aiming to proactively mitigate future comorbidities.

Methods: This retrospective cohort study conducted in Taiwan, we aimed to develop risk prediction models for T2DM outpatients at Taipei Medical University Hospital between January 1, 2018, and June 30, 2023. Inclusion criteria required no evidence of DKD at baseline, defined as urinary albumin/creatinine ratio (UACR) > 30 mg/g, or eGFR < 60 mL/min/1.73m², with a 3-year follow-up. Exclusions were applied to those aged < 18, with acute infections, malignancies, or pregnancy.

We employed 54 potential variables extracted from Electronic Medical Records (EMR) for predictive modeling, utilizing five machine learning algorithms: eXtreme Gradient Boosting(XGBoost) , Support Vector Machine(SVM), Random Forest (RF), Logistic Regression(LR), Decision Tree. Model performance was assessed using the Area Under the Curve (AUC). Patient data underwent 5-fold cross-validation, with partitioned into training (80%) and testing (20%) sets.

Our approach presents a management and multifactorial intervention strategy for DKD progression based on guidelines from the American Diabetes Association (ADA) and Kidney Disease Improving Global Outcomes (KDIGO). Screening for DKD (UACR and eGFR) is recommended at the initial diabetes diagnosis and annually thereafter. Our care framework includes three categories: (1)continuous tracking, (2)receive treatment, and (3)refer to nephrology treatment.

Finally, we implemented an alert system integration across COPE and the case management system. Specific multifactorial interventions were tailored based on progression types and DKD risk prediction level (no, low, intermediate, and high). Subsequently, the medical team tailored screening, diagnosis, lifestyle therapies, treatment goals, pharmacologic management and intervention programs according to patient needs.

Results: In our analysis, a total of 18,816 patients were included, with a median age of 57.9 years (IQR, 49–65 years), and 11,609 (61.7%) were male. At the 3-year follow-up, patients were categorized based on the presence ($n = 2,958$, 15.3%) or absence ($n = 15,858$, 84.7%) of DKD. The incidence of at least one macrovascular or microvascular complication (hypertension, cardiovascular disease, diabetic retinopathy, diabetic peripheral neuropathy) was 54.2%.

The XGBoost model demonstrated the highest AUC (0.823, 95% CI 0.761–0.887). The SHAP plot based on XGBoost revealed that T2DM patients with high homocysteine (Hcy), poor glycemic control, low serum albumin (ALB), low estimated glomerular filtration rate (eGFR), high BMI, a history of chronic heart failure, and smoking had an increased risk of developing DKD over the next 3 years.

From August 1, 2023, to January 31, 2024, the information system enabled automated prediction functions for 12,732 T2DM outpatients. Notably, when the predicted category was intermediate or high, the system issued warnings 1,298 times (10.2%). Impressively, the medical team responded with execution actions to these alerts 846 times (65.2%). Furthermore, the execution rate of laboratory tests increased compared to the previous year (1) eGFR: 6.8% (2) UACR: 14.2% (3)HbA1c: 4.3% , particularly in moderate or severe risk groups, the completion rate of these three tests exceeded 95%.

Conclusion: Our study provides empirical evidence and management strategies for patients with T2DM. The alerts system proves particularly advantageous for physicians and patients who adhere to recommended follow-up, emphasizing kidney health, function, and blood glucose control. The implementation of early warning systems for DKD holds significant clinical value. The XGBoost model with potential to support population management strategies by prediction 3-year DKD risk in individuals recently diagnosed T2DM. For those displaying susceptible factors for incident DKD, early and optimal interventions by care providers play a crucial role in delaying the progression of DKD and potentially reducing the incidence of cardiovascular events and premature mortality.

Disclosure of Interest: None Declared

Afternoon

Short Orals

Quality practices in mental health: An example from Turkey: (3305) Hülya Şahin

ISQUA2024-ABS-3305

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Introduction: In our country, the community/hospital balance model, which focuses on patients and families, has been implemented since 2011. Community Mental Health Centers (CMHC) were established in Turkey after this date. Today, 177 CMHC provide services. In these centers, chronic psychiatric patients and their families are served by a multidisciplinary team. Within the scope of Quality Standards in Health in Turkey, there are Psychiatric Services and CMHC departments within the hospital set. In our country, it is mandatory to implement the standards in these sections and monitor the indicators. In our study, the indicators of a CMHC in Turkey were examined.

Methods: Retrospective method was used in the research. In this regard, in the Quality Standards in Health - Hospital Set Indicators Monitoring section, 13 quality indicator data of the Community Mental Health Center in our city for the years 2021-2022-2023, among the quality indicators followed for Community Mental Health Centers, were retrospectively scanned. The data was analyzed and compared with the targeted values. According to the analysis results, the benefits and contributions of these centers to individuals attending CMHC, their families and society were tried to be revealed.

Results: According to the research results, data on chronic psychiatric patients with bipolar, schizophrenic and psychotic disorders who are within the scope of CMHC service in our city were analyzed on the basis of 13 quality indicators. These indicators include issues such as hospitalization rates, suicide attempts, patients dying as a result of suicide attempts, substance addiction, body-mass index, remission decision status, and center attendance, which reveal the contributions of CMHCs to patients, their families, and society. Among the individuals attending CMHC in our city, it was observed that there were no patients who died as a result of suicide attempt in the period examined in 2021-2022-2023. The hospitalization rate remains low, with rates of 0.56% in 2021, 2.34% in 2022, and 1.65% in 2023. There is a low trend again in the substance addiction indicator, with rates of 0.36% in 2021, 0.27% in 2022, and 42% in 2023. In the last case, it was understood that there were 2 substance addict patients among 530 patients and these patients were receiving treatment at AMATEM. It was observed that the rate of patients who were given remission was high, with an average of 81.66% over three years. The number of patients per case manager is 105 on average over the three years. The highest number determined by the Turkish Psychiatric Association regarding this indicator is 70. Accordingly, the number in our city is high in terms of the effectiveness of the service. According to the indicator results examined, CMHCs appear to have positive effects on both the course of the disease, families and society.

Conclusion: When the rates of hospitalization, suicide, substance abuse and remission decisions are examined in the analyzes based on quality indicators, it is seen that CMHCs established within the scope of community-based mental health services have a great contribution from the perspective of patients, their families and society. In addition, according to the "Number of Patients per Case Manager" indicator, the capacity of these centers, where an average of 105 patients per case manager

is high in terms of effective and efficient service delivery, and where many different professional groups provide services together, needs to be supported in terms of the number of staff.

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Disclosure of Interest: H. Şahin Other: Herhangi bir çıkar çatışması yoktur., S. Korkut Other: Herhangi bir çıkar çatışması yoktur

Safety Culture - challenges and the perspective under the lens of equity: (1635) Aline Cristina Pedroso

ISQUA2024-ABS-1635

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Introduction: In 2023, a survey to assess the perception of safety culture in a Brazilian hospital, using a structured research instrument, the AHRQ's SOPS Hospital Survey 2.0. The research involved more than 20,000 professionals from various health sectors (public and private) and aimed to identify potential areas for improvement in the health sector. Until then, we were not aware of an evaluation of these data from the perspective of equity. Therefore, questions about race, color, gender, and sexual orientation were incorporated into this research to analyze perceptions of health safety culture through the lens of equity. When analyzing the data from this perspective, the results were surprising and pointed to key areas that need improvement, including staffing issues, work pace, and error response. Notably, the research revealed significant differences in the perception of error response between self-identified white and brown individuals, a fact hitherto unknown.

Methods: A descriptive, prospective, and quantitative study was conducted to assess the perception of safety culture in a Brazilian hospital, using a structured research instrument, the SOPS Hospital

Survey 2.0. The Patient Safety Culture Survey was conducted anonymously, using the HSOPS 2.0 version of the AHRQ translated and validated for the Portuguese language, and involved more than 20,000 health professionals from the public and private sectors. Participants responded to an online institutional survey, anonymously, via the REDCap platform. The response rate was 56%. In this edition of the survey, two additional strategies were implemented for a more in-depth analysis. First, questions related to equity were included, addressing aspects such as race, color, ethnicity, gender, and sexual orientation. Secondly, a qualitative analysis of the participants' comments on how processes are conducted in their units or organizations, affecting safety, was carried out. The results were statistically analyzed to identify significant differences in the perception of positive response among different groups. In addition, comments from 1,777 participants were analyzed to provide deeper insights into the perceptions of the measured dimensions.

Results: The study sample consisted of 9,816 collaborators who fully responded to the survey. The study sample consisted of 4153 (42.3%) white participants, 1077 (11.0%) black, 4319 (44.0%) brown, 220 (2.2%) yellow, and 47 (0.5%) indigenous. We investigated associations of the results of the patient safety culture survey with the demographic characteristics of the participants. The results revealed significant differences in the perception of error response among participants self-declared as white and brown, with a higher rate of positive response among white participants compared to browns (estimated difference 4.4%; CI 95%: 0.3% to 8.4%; $p=0.0023$). However, no differences were found in relation to other variables, such as gender and sexual orientation, in all dimensions of the survey. In the comparison between the different categories of education in the dimensions of the instrument, we observed that the average of participants with postgraduate/master's/doctorate in the Error Response dimension is higher than that of participants with incomplete high school (estimated average difference 16.4%; CI 95%: 1.7% to 31.0%; $p=0.015$), with complete high school (estimated average difference: 9.9%; CI 95%: 4.7% to 15.1%; $p<0.001$), with incomplete higher education (estimated average difference: 10.3%; CI 95%: 4.1% to 16.4%; $p<0.001$) and with complete higher education (estimated average difference: 10.7%; CI 95%: 4.7% to 16.8%; $p<0.001$). The analysis of the comments of 1,777 participants, in response to the question: "Feel free to make comments about how things are done or how things could be done differently in your unit or organization that may affect safety", provided insights into the perceptions of the evaluated dimensions. This information offers valuable guidance to improve and strengthen the safety culture in our health system and represents a significant advance to ensure the safety of patients and staff.

Conclusion: The study provided valuable insights into the perception of safety culture in health institutions demonstrating key areas that need improvement, including staffing issues, work pace, and error response. In addition, the research highlighted the need to improve equity policies in the health environment. The results of the study are of great importance as they provide valuable guidance to improve and strengthen the safety culture in the health system.

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Disclosure of Interest: None Declared

TRESNO KOE (Indonesian acronym for Problem-solving Respons Point for JKN Mobile Online Registration): (3301) Tri Wahyuningsih

ISQUA2024-ABS-3301

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Introduction: *Indonesia as a developing country needs a the Universal Health Coverage (UHC) to be an integral part of achieving SDG 3 which is to ensure healthy lives and promote well-being for all individuals of all age groups. The UHC is embedded into two core elements: Access to equitable and quality health services for every citizen and the protection of financial risks upon using health services. Indonesia appointed the Health Insurance Agency (BPJS) as the manager of the National Social Security System.*

Methods: *TRESNO KOE (Indonesian acronym for Problem-solving Respons Point for JKN Mobile Online Registration) includes JKN Mobile Ambassadors and PAKE IMO. TRESNO KOE ambassador is a teamwork of JKN Mobile ambassadors at RSUD Ajibarang that welcomes the patients and acts proactively in providing education and guiding thr online registration process of JKN mobile. PAKE IMO is a guide used by the TRESNO KOE team in carrying out activities, such as downloading/installing the app, and assisting thr users/patients to register through JKN Mobile.*

TRESNO KOE team is tasked with facilitating access to services and information for patients and families visiting RSUD Ajibarang. Therefore, TRENKO promotes a seamless process for patients and families to use outpatient services, increase the coverage of JKN Mobile usage, build and maintain service quality and hospital image, and strive to bring customer satisfaction to services.

TRESNO KOE ambassadors are assigned to the capture point of JKN mobile utilization:

Outpatient: for patients after receiving services and being given a medical appointment letter

Hospitalization: For post discharge patients and those who will have post in-patient care at the Ajibarang Hospital Polyclinic.

Pharmacy Waiting Room : For patients who are waiting for their medicine.

JKN Mobile Corner "TRESNO KOE"

When the TRESNO KOE Ambassadors on duty encounter a problem, they will access Pake IMO, as follows:

1. Open the link bit.ly/PakeIMO
2. Select the obstacle menu
3. Click on my menu as Tresno Koe Team
4. Read carefully the given solutions that are relevant with the problems encountered by TRESNO KOE Ambassadors.

Results: TRESNO KOE succeeded in increasing the utilization of the online queue through Mobile JKN RSUD Ajibarang as indicative of an upward trend from 1.93% (July) to 15.24% (August) and 26.61% in December 2023. One of the main problems successfully addressed through TRESNO KOE is the waiting time of JKN participants in obtaining health services that could be reduced to under 3.5 hours. In addition to a shorter waiting time, the online queue also helped reduce the potential for disease transmission, thus creating a safer and a more hygienic environment at health facilities. Also, health facilities no longer need to provide parking lots and assign human resources to manage queues. This achievement has bestowed TRESNO KOE the Digital Transformation Awards BPJS Kesehatan Year 2023.

Image:



Conclusion: RSUD Ajibarang supports the government program of UHC by initiating the efforts to utilize digital-based services / digital transformation in hospital services through the TRESNO KOE innovation. TRESNO KOE succeeded in increasing the use of online queue through Mobile JKN RSUD Ajibarang from 1.93% (July) to 26.21% in December 2023. This is a tangible manifestation of easy access to services and a definite service time for patients, thus enabling them to perform their daily routines without any disturbance to their economy while accessing equitable and quality healthcare.

References: Law No. 40 of 2024 on the National Social Security System

Law No. 24 of 2011 concerning the Social Security Organizing Agency

Presidential Regulation No. 64 of 2020 on the Second Amendment to Presidential Regulation No. 82 of 2018

JKN Mobile Usage Guide

Health Facility Online Queue Implementation Monitoring Purwokerto Branch

Disclosure of Interest: None Declared

Health Justice in fragile and shock-prone settings: from theory to practice towards building resilient health systems: (3441) Wesam Mansour

ISQUA2024-ABS-3441

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I confirm that the submission has been approved by all authors: Yes

Introduction: Health justice represents a foundational pillar in health systems research, emphasizing the need for fostering equitable health systems. It advocates for the equitable distribution of healthcare resources, access to quality healthcare, and fair health outcomes. The health capability is one theoretical approach that has been significantly used to explain health justice in health policy and system research. Translating this focus on capabilities to the realm of health system resilience underscores the importance of contextualising existing resources and abilities within ongoing relationships, and navigating competing interests across different levels of the health system, particularly in fragile settings. For example, in protracted conflicts settings, conflicts have destroyed health systems and eroded the capabilities of citizens to be healthy and of governments to support their health systems and populations. While theoretical discussions on health justice have flourished, empirical investigations have often lagged behind, necessitating further empirical research to provide tangible insights. This study examined the characterization and utilization of the health justice concept in four fragile contexts in Myanmar, Nepal, Lebanon and Sierra Leone.

Methods: In ReBUILD for Resilience, we established a Gender, Equity and Justice (GEJ) Working Group to mainstream GEJ aspects in all our research. We conducted a literature review where 40 relevant papers were included to explore how health justice has been explained and used in health systems research. We adopted system thinking and system and complexity theories and methods e.g., group model building (GMB) and participatory action research (PAR) to unpack the factors that constitute the 'systems for health' at large and find leverage points that address inequalities and aim to redistribute power in our four fragile contexts. Empirical insights gleaned from the Rebuild Consortium offered

reflective inputs, along with illustrative examples from the consortium's work on how health justice has been applied in fragile settings.

Results: Fragility presents a critical development challenge, eroding governments and populations' efforts to build healthy, equitable, and inclusive societies. It is useful to encompass the capability to achieve health through addressing unjust social arrangements which lie within and beyond the health systems. In Sierra Leone, we use PAR to strengthen the community health system and support the role of community leaders in building local health resilience to respond to health crises. In Lebanon, the health system struggled to cope with the multi-crisis situation leading to limited access to jobs, health and educational services. Combining PAR and GMB has led to the formation of a Municipal Health Committee to take charge of the governance of healthcare in the Municipality of Majdal Anjar and to implement a resilient local health system through collaboration with local stakeholders. In Myanmar, political instability and the military coup of 2021 has a huge impact on trust and transparency between the stakeholders. In Nepal, using PAR to conduct a series of GMB workshops with various stakeholders highlighted the uneven distribution of health services, limited access of the marginalised groups to health services, low education and poor socioeconomic status as the main risk factors for low service coverage. We collectively developed a local action plan aimed at ensuring that health services are more accessible and responsive to the needs of marginalised people.

Conclusion: In contexts marked by fragility and conflict, the integration of health justice principles is of paramount importance due to pervasive inequalities and vulnerabilities. This integration holds promise for enhancing the resilience health systems in fragile contexts, enabling these systems to better withstand shocks and disruptions. Through the incorporation of health justice principles into research initiatives, a tangible link between theoretical foundations and practical outcomes must be forged. The illustrative examples used in this study served as exemplars of how health justice can be effectively embedded in projects aimed at reinforcing health system resilience. Participatory action research aligns well with the principles of health justice by empowering communities and enhancing their capability to actively engage in addressing health disparities, addressing root causes, and advocating for equitable healthcare systems and policies. It shifts the focus from simply studying disparities to actively working towards their elimination through meaningful collaboration with key stakeholders, while sensitising those stakeholders to build a level of understanding of how GEJ can be integrated into health services delivery and evidence-based decision making.

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ISQUA2024-ABS-3330

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Introduction: The World Health Organization defines quality in healthcare as the probability of increased desired outcomes consistent with evidence-based professional knowledge, focused on individuals and assisted populations (1). Currently, there is a growing number of healthcare organizations seeking to enhance management, quality, and safety through accreditation. However, there is a notable lack of objective evidence regarding the impact of external accreditation on the quality of healthcare services in low- and middle-income countries (1). This study aims to demonstrate the benefits of external accreditation in primary care services using the Brazilian methodology of the National Accreditation Organization – ONA.

Methods: The study covered 340 Basic Health Units (BHU) in São Paulo, Brazil, providing medical care to approximately 7 million users of public sector. Initially, an organizational diagnosis was conducted in all BHUs, followed by accreditation visits. Evaluations were carried out by teams of 3 to 8 surveyors, varying based on the number of collaborators and critical service providers in each BHU. In total, 26 surveyors participated. To identify the benefits of accreditation, analyses of assessment reports were conducted, and discussions with surveyors took place, particularly regarding improvements implemented in the service between the organizational diagnosis and accreditation visit. Responses were evaluated using content analysis to identify and analyze common themes. Additionally, a meeting with representatives of the Municipal Health Department was undertaken to present the knowledge framework and receive feedback on the clarity and applicability of the findings.

Results: The main benefits for BHUs through the accreditation process were categorized based on their impact on stakeholders as follows:

For the user:

- Hiring an additional pharmacist per BHU;
- Inclusion of guidelines for palliative and end-of-life care in primary care;
- Consolidation of urgency and emergency protocols;
- Increased rigor in record-keeping and therapeutic plans;
- Implementation of access controls in units.

For the employee or provider:

- Broadening the focus on comprehensive employee health care with the identification of epidemiological profiles and the implementation of emotional support flows and improvement actions.

For public administration:

- Updating the algorithm for user care in emergency situations, enabling adjustments to emergency vehicles and optimizing available resources;
- Structuring supply and medication storage processes, and managing preventive and corrective maintenance of equipment.

For BHU:

- Engagement and motivation of teams with the opportunity for accreditation;
- Familiarity with quality tools;
- Strengthening communication and integration processes at different levels of the organizational structure;
- Structuring and disseminating leadership strategies, enhancing clinical governance, and managing external providers, among others;
- Standardization of processes, documents, and protocols, formalizing previously practiced but undocumented activities, including record and file management;
- Defining and formalizing Contingency Plans;
- Updating of licenses related to the legal operation of BHUs;
- Defining and disseminating guidelines for infection prevention and control and biosafety;
- Improvement in the physical infrastructure of BHUs, providing greater safety for employees and users.

Image:



Conclusion: While many results from the accreditation process are directly linked to healthcare quality management, it is evident that all obtained benefits are interconnected and directly impact the safety of user assistance. Considering the primary care network in São Paulo encompasses 7 million users, this accreditation project has proportions to be considered one of the largest primary care projects in the world today. The results demonstrate evidence that external accreditation directly contributes to improving the quality and safety of users in a middle-income country like Brazil.

References: Health care accreditation and quality of care: exploring the role of accreditation and external evaluation of health care facilities and organizations. Geneva: World Health Organization; 2022. Licence: CC BY-NC-SA 3.0 IGO.

Disclosure of Interest: None Declared

Advantage use of External Evaluation on Clinical Performance during Hospital Mentoring: (3192) Dwirani Amelia

ISQUA2024-ABS-3192

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Introduction: Despite the fact that more than 90% hospitals (public and private) in Indonesia were accredited, an analysis from Indonesia Maternal Perinatal Death Notification System by Ministry of Health in 2022 shown a significant modifiable factor as gaps that hospitals can improve. In 2019, Ministry of Health of Indonesia started to adapt hospital mentoring as one of the methods to improve clinical governance in MNH care services. USAID MOMENTUM Private Healthcare Delivery (MPHD), a 5-year project was aimed to contribute to improve hospital MNH quality of care. To achieve this goal, answers are needed to some of the most burning questions on quality of health services. Questions such as: what need to be done after hospital accreditation? How external evaluation could be a support for hospital without adding anxiety such as accreditation assessment? These are some of the questions that need innovative and appraise human behaviour such as mentoring.

Methods: Hospital mentoring (HM) under USAID MPHD project was carried out by a group of experts consisting of doctors, midwives, nurses and representatives of hospital management. They paired with their peer from mentee hospital during HM. Mentors were selected primarily from professional organizations, hospital staffs with quality improvement expertise and health office staffs at provincial level, which then cascade down this mentoring capacity down to regional expert and health office at district level. Mentee hospitals were selected based on their caseloads in MNH services and the maternal and neonatal morbidity and mortality.

The initial assessment is carried out by both mentor and mentee, using clinical performance monitoring tool, which cover the management of general obstetric and newborn emergency, PPH, SPE/E, maternal sepsis, newborn asphyxia, newborn sepsis, and seizure in newborn, and infection prevention. Standards in the performance monitoring tool was verified by several verification criteria that include inputs and processes which is important for manager to follow up.

HM was carried out in a hybrid manner, 3 cycles of 3-days visit by mentors to mentee hospitals, which preceded by a 4-hours call for preparation. The period between one HM and another is 6-8 weeks. The achievements and challenges were discussed during every contact, and a follow-up action plan was placed. In addition, a communication to the hospital management and owner was took place to advocate action plan.

Mentors conduct monitoring, in addition to online discussions or telephone conversations, also by following up action plans, and advocacy to hospital management or owners, and the local health office as needed.

Results: From October 2022 to September 2023 through HM using clinical performance monitoring tools both external and independent, there was an increase in hospital performance in MNH services in all MPHD intervention provinces. HM managed to increase the performance of MNH services from an average of 49% to 80%. At the same time a decrease in iMMR 47.81 to 39.54 per 100,000 births, OCFR decreased by 0.15 to 0.07, and iNMR 6.02 to 5.32 per 1000 live births was observed. Additional analysis comparing the performance of hospital who have obtained HM and have not obtained HM, a lower iMMR, OCFR and iNMR was shown by hospitals that have earned HM.

Conclusion: External evaluation of hospital clinical performance through hospital mentoring provide a safe environment and role modelling to mentee hospital and promote hospitals to perform much better

Disclosure of Interest: None Declared

An exploratory study into the perceived impact of the accreditation on health care quality and its associated cost among accredited healthcare organizations (HCOS) in India: (2940) Prashanth Nag

ISQUA2024-ABS-2940

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Introduction: India's healthcare landscape is characterized by diversity, catering to a broad spectrum of society through a mix of public and private providers. With a thriving \$372 billion industry and an impressive 39% Compound Annual Growth Rate, the private sector dominates, delivering over three-fourths of healthcare services. Modern quality management demands meticulous monitoring to ensure adherence to rules and regulations. Despite the current voluntary nature of accreditation in India, recent interest from the government and insurance sector signals a positive shift. This study aims to offer valuable insights into the cost-benefit dynamics of accreditation within the Indian healthcare system. It seeks to contribute to ongoing initiatives aimed at fortifying quality management and enhancing patient safety. Objectives include describing the integration of accreditation in the healthcare delivery system, gauging the perceptions of accredited Healthcare Organizations (HCOs) regarding accreditation's impact on healthcare quality, and identifying various cost centers linked to achieving and sustaining accreditation.

Methods: We crafted a semi-structured questionnaire as our research instrument, employing a multi-step development process that included a Systematic Review, Focused Group Discussion, and Face and Content validation. The questionnaire was distributed to a substantial number of accredited

Healthcare Organizations (HCOs) nationwide, accredited by organizations such as NABH, NQAS, or JCI. The aim was to capture a diverse range of responses, contributing valuable data for subsequent analysis. Descriptive and summary statistics were employed to establish a broad understanding of the data across hospitals, with statistical analyses conducted at a significance level of $\alpha = 0.05$. The outcomes of the study were summarized as Mean or percentage, as applicable. The Student t-test or ANOVA test was utilized to assess significant changes among the various study groups.

[NABH - National Accreditation Board for Hospitals and Healthcare Providers; NQAS - National Quality Assurance Standards; JCI - Joint Commission International]

Results: Out of the 121 responses received, 91 underwent analysis for data accuracy, adhering to predefined inclusion criteria. Respondents holding designations like Vice President, CEO (Chief Executive Officer), MD (Managing Director), and MS (Medical Superintendent) were categorized as top-level managers, given their pivotal roles in steering the hospital's strategic direction and overall success. In contrast, mid-level managerial positions, including DMS (Deputy Medical Superintendent), AMS (Assistant Medical Superintendent), Quality Head, and Quality Manager, were considered alternatively. Mean scores of the questions involved in the study were tabulated in various subheadings based on accrediting organisations, level of care, hospital specialty, hospital ownership, hospital bed strength and the designation of the respondents (Image).

Accreditation demonstrates positive effects on structural factors, process-related measures, and outcomes, encompassing improved efficiency, safety culture, patient satisfaction, reputation enhancement, staff satisfaction, and reduced errors. Despite these advantages, the notable costs associated with accreditation, such as consultancy fees, infrastructure upgrades, equipment enhancements, and staff training, underscore the importance of strategic resource allocation to optimize financial impact for healthcare organizations. The healthcare industry's financial sensitivity presents a hurdle for accreditation initiatives, sparking concerns about their potential impact on care quality in India.

Image:

Table 1 Background characteristics of the surveyed HCOs

Type of institution		
	Frequency	Percentage
Private	72	79.1
Government	11	12.1
Charitable	8	8.8
Total	91	100
Level of Care		
Primary	8	8.8
Secondary	19	20.9
Tertiary	64	70.3
Total	91	100
Hospital Specialty		
Multi-Specialty	58	63.7
Super Specialty	33	36.2
Total	91	100
Hospital Bed Strength		
≤100 bedded	19	20.9
101-500 bedded	54	59.3
>500 bedded	18	19.8
Total	91	100
Accrediting Organization		
JCI	9	9.9
NABH	72	79.1
NQAS	10	11
Total	91	100
Respondent's designation		
Top Level	20	22
Mid-Level	71	78
Total	91	100

Conclusion: Accreditation emerges as a pivotal tool for enhancing care quality in the rapidly expanding healthcare sector, garnering interest from both government and insurance sectors. Our findings reveal a pervasive adoption of accreditation in India, notably through indigenous standards like NABH and NQAS. This nationwide dispersion of accreditation signifies its widespread influence. Moreover, the observed trend suggests that accredited healthcare organizations (HCOs) experience heightened

efficiency and effectiveness in the treatment process, evident through improved key performance indicators (KPIs) across various studied parameters.

Disclosure of Interest: None Declared

Factors Affecting the Sustainability of Hospital Accreditation Program Establishment and Implementation in Low- and Middle-Income Countries (LMICs): (1619) Reece Hinchcliff

ISQUA2024-ABS-1619

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Introduction: Hospital accreditation programs can produce significant Quality and Safety (Q&S) benefits, but many programs in LMICs are discontinued shortly after their establishment. Ineffective implementation and the discontinuation of programs represent a waste of scarce resources and a lost opportunity to improve Q&S. The aim of this study was to synthesise published evidence to provide guidance to stakeholders responsible for implementing hospital programs sustainably in LMICs.

Methods: This scoping review used established, robust methods (Joanna Briggs Institute - JBI framework). Search terms were “Accreditation,” “Health,” “Hospital,” and the country list of LMICs. There were no time or language restrictions. Screening and thematic analysis procedures were validated by the research team.

Results: The initial search yielded 3,406 sources, with 32 included for the final analysis. Table 1 summarises selected factors identified as key influences on the implementation and sustainability of programs. Selected key factors are further explained below.

Table 1: Factors reported to influence the implementation and sustainability of hospital accreditation programs in LMICs

Main Factor	Sub-Factor	Description	Number of Publications
Legislation and Governance			28
	Legislation	Laws, ordinances, regulations, policies	15
	Governance	Operating and controlling systems	26
Establishment Characteristics			32

	Standards	A desired level of performance against which actual performance is measured	27
	Surveyors	External peer reviewers of performance against standards	16
	Incentives	Financial and other strategies useful to promote and sustain accreditation programs	14
Implementation of Surveys			28
	Pre-survey activities	Activities conducted prior to the external peer review	11
	Survey Process	Activities and communication of external peer review	14
	Survey Characteristics	Specific characteristics of external peer review of performance against standards	22

Integration with legislation was more prominent in long-standing accreditation programs. Authors suggested that dependence on governments should be balanced, to avoid political interference, by creating multi-stakeholder accreditation committees.

A common approach in standards development was the adaptation of international standards using multi-stakeholder participation and implementation, with or without pilot testing. Authors recommended a balance between structural, process and outcomes-focused standards. Self-assessment, followed by periodic, on-site surveys, and awarding of accreditation for 2 – 3 years was the common implementation approach. Mandatory programs created opportunistic behaviours, while voluntary programs had lower numbers of accredited hospitals.

Several factors proposed to impart positive influence on accreditation program establishment and implementation were identified in the publications. Standards should facilitate stepwise implementation to promote continued motivation among staff and minimize the negative impact of

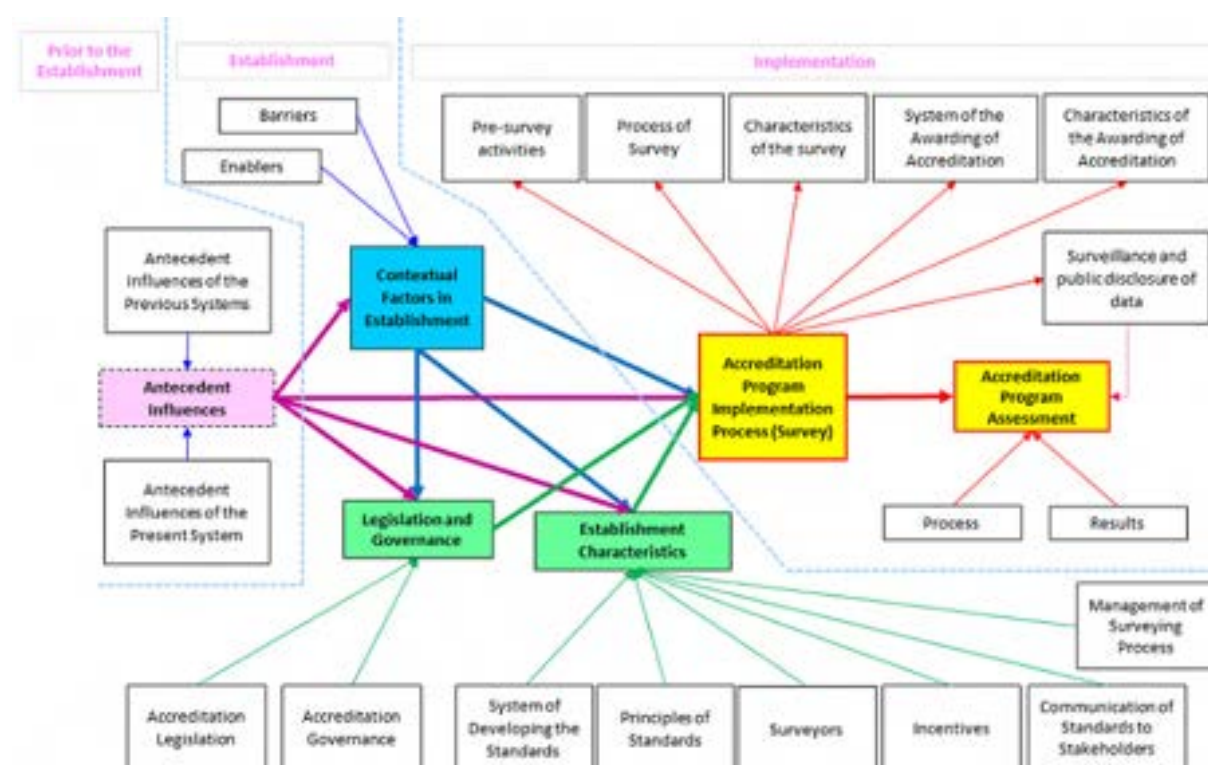
organisational capacity limitations. Surveyors should have qualities of professionalism, and preferably be reputable and experienced health staff. A balance between national and external surveyors to ensure cost-effectiveness, contextual understanding and objectivity, and the utilization of induction and continuous training of surveyors for improving the credibility of the surveys, were also recommended.

The importance of using and balancing monetary (linkages with insurance reimbursements, increased funding for accredited facilities, promotion of medical tourism and performance-based financing) and non-monetary (recognition, branding, appreciation) incentives were highlighted. Monetary incentives were viewed as potentially driving opportunistic behaviours, but their absence may reduce organisational motivation to continue participation. Other activities proposed to facilitate sustainable implementation included educational surveys and initial situation analysis. When combined with facilitated quality improvement, these were believed to enhance the awareness of ground-level staff. The use of information and communication technology for timely and accurate data management was also suggested.

Figure 1 depicts the relationship between these factors in the form of a conceptual framework, which will be discussed during the intended presentation.

Figure 1: Relationship between factors influencing accreditation program establishment and implementation

Image:



Conclusion: There is an emerging evidence base to guide the initial establishment and ongoing implementation of hospital accreditation programs in LMICs. Health stakeholders involved in these processes should harness the information synthesised in this presentation to support their efforts to

achieve sustainable programs that maximise Q&S benefits for health services, systems, and consumers.

Disclosure of Interest: None Declared

JCI Enterprise Accreditation – Quality Improvement for Complex Health Systems: (3311) Joel Andrew Roos

ISQUA2024-ABS-3311

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Introduction: Healthcare organizations continue to increase in size and complexity via mergers and acquisitions, while adding other sites of care delivery to include surgical and ambulatory care centers, laboratories, and other specialty centers. While these organization strive to function as a centrally run healthcare system, their complexity creates challenges in achieving standardization of operational and clinical processes.

This session will highlight the Joint Commission International (JCI) Enterprise Accreditation which evaluates system-wide governance, policies and procedures and their implementation across individual facilities to ensure coordination and standardization. Enterprise accreditation represents an additional level of accreditation focusing on the system.

Methods: First, an overview of the new Enterprise Accreditation standards and survey process will be provided.

Enterprise accreditation standards focuses on these key areas: governance and leadership; human resource coordination; quality performance improvement; and system alignment.

To date, 10 Enterprise Accreditation surveys have been successfully completed by healthcare organizations ranging in size from 3 to 24 individual facilities. An analysis of all survey findings was performed to assess for trends and commonalities among these surveys. Key lessons, safety issues and problems were identified and quantified where applicable.

A summary of customer feedback was also obtained and presented.

Results: A summary of the characteristics of the organizations undergoing enterprise accreditation will be presented.

Key findings or survey trends: The most common observations from the 10 accredited enterprise organizations show improvement opportunities in aligning system-wide governance and leadership structure. 50% of all standards that were scored from all organizations were identified in the Governance and Leadership Structure (GLS) chapter. Examples of specific findings will be shared.

Customer feedback: Customers value the streamlined survey approach that Enterprise accreditation offers at a systemwide level. Multi-site organizations that are under one system identify the JCI Enterprise accreditation approach as a tool to improve system alignment, resource allocation, and communication strategies.

Conclusion: As healthcare organization increase in size and complexity, the governance and leadership of these organizations grow in importance. However, achieving and optimizing alignment within the organization becomes more difficult. The JCI Enterprise Accreditation standards and survey process serve as a useful method for larger healthcare standards to improve this alignment, resource allocation and communication.

Disclosure of Interest: None Declared

'Healthcare in my happy place': co-designing digital health to support access to care in First Nations remote communities: (3014) Tim J Shaw

ISQUA2024-ABS-3014

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Introduction: Digital health presents opportunities to improve access to care for remote First Nations communities and promote safe and effective care. However, there have been many false starts in using technology in First Nations communities and little is known regarding the preferences of First Nations community members regarding how technology can be used in a safe, culturally appropriate way.

Methods: This project used a co-design methodology in a remote island community in the Northern Territory in Australia to better understand preferences for how digital technology can be applied in a culturally appropriate way and develop a 'technology stack' to support these preferences. Focus group discussions (formal and informal), and one-on-one interviews were held with over sixty community members, remote area health practitioners and health clinic managers in the community.

Results: Community members expressed a strong desire to not travel away from their community for their healthcare when possible. A health appointment on the mainland could be a four-day trip for a 30 minute consultation, as it involves travel in a light aircraft and return flights may not be available. This is a major barrier to accessing health care for many patients. Community members were interested in using telehealth to reduce the need to travel. They preferred telehealth with a known health professional but accepted that in an emergency situation that may not be possible. Female community members expressed interest in accessing telehealth for health and wellness checks outside of the health clinic in areas such as the Women's Centre. This included accessing a female health professional when only a male General Practitioner was available in the clinic. A majority of community members indicated that they had access to technology such as mobile phones but did not often use these for health care purposes. Cost to access technological devices and the internet are major barriers to usage. Community members did not often use the internet to proactively access information on the

internet but expressed interest in having targeted health information sent to them via SMS messaging and through links on local social media sites and message boards.

Conclusion: The data from this study indicate that there is strong community support to use digital technology to improve culturally safe access to care in remote communities. This includes delivering telehealth solutions in non-clinical environments such as community centres which are a “happy place” for community members. The results of this study are being used to inform the roll out of an integrated digital health program that comprises establishing telehealth in the community, improved outpatient telehealth from the clinic and distributing targeted health information through tools such as SMS push messaging. Special care is needed to ensure that technologies used in remote communities do not impact safety and quality.

Disclosure of Interest: None Declared

Efficiency of AI Models in Complication Detection after Surgery: (2311) Julia Vetter

ISQUA2024-ABS-2311

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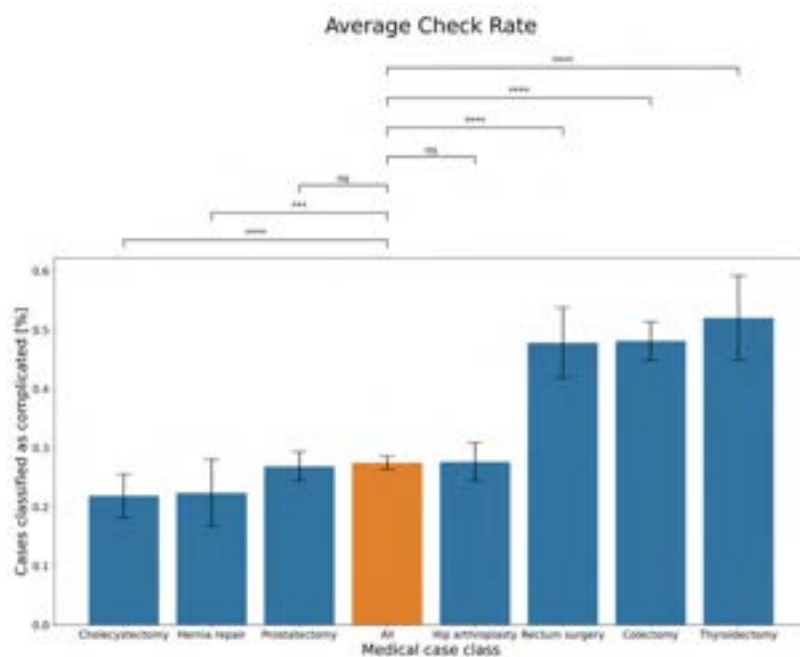
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Introduction: Different types of surgery (hernia repair, cholecystectomy, etc.) show different complication rates. In recent years, we have shown that it is possible to implement retrospective complication detection using artificial intelligence (AI) [1]. Since 2015, the University of Applied Sciences Upper Austria and the Oberösterreichische Gesundheitsholding (OÖG) develop the platform LeistungsVergleich Medizin (LeiVMed) for collecting, monitoring, and analyzing patient data. In this study, based on the stored routine data, we evaluate two different approaches for the identification of medical cases affected by complication(s). Therefore, we train machine learning (ML) models: on the one hand, individual models are trained for each of the seven different medical case classes (cholecystectomy, colectomy, hernia repair, hip arthroplasty, prostatectomy, rectum operation, and thyroidectomy), and on the other hand, models that comprise all categories.

Methods: Our data basis consists of information about patients from 12,156 surgical cases from different Austrian hospitals. This dataset includes information about services provided before, during, and after their stay in the hospital, as well as risk factors and complications. For modeling, the already proven multi-model ensemble (MME) approach was used, which combines ML models derived from various ML algorithms (e.g., random forest, genetic programming, neural networks, etc.). The MMEs were trained for each medical case class and for all data aggregated. Model selection was performed by using MMEs with a 20% false negative rate (FNR), which should guarantee the detection of 80% of all cases affected by a complication. For evaluation, the check rate was used, i.e., the fraction of all cases classified as complicated, implying the number of cases that need to be reviewed to identify 80% of all complicated cases.

Results: The results show that AI-based complication identification using all data delivers statistically significantly ($p < 0.05$) better results, especially compared to the individually trained models of colectomy, thyroidectomy, and rectum surgery (see Figure 1). For these three case classes, over 45% of the cases were classified as complicated. This means, on average, 49.32% have to be reviewed manually to detect 80% of all patients affected by a complication. For the aggregated MME, the average check rate is 27.49%. No significant difference is recognized compared to the medical case classes prostatectomy and hip arthroplasty. Only two case classes (cholecystectomy and hernia repair) show better results. Here, fewer cases need to be reviewed (on average, 21.87% and 22.36%, respectively).

Image:



Conclusion: Sensitive retrospective complication detection offers great potential for improved and more efficient collection and review of complicated cases after surgeries. In our study, modeling that includes all data from all medical case classes proved to be more successful for most case classes, as fewer cases are incorrectly classified as complications. In the case of hernia repair and cholecystectomy, where the individually trained MMEs led to slightly improved results, a potential combination of multiple MMEs (case class specific and aggregated) should be considered when integrating the trained models into an existing system. However, an MME trained using all data may offer the capability to classify later-on added cases from unseen medical case classes.

References: [1] Strobl, M., Vetter, J., Halmerbauer, G., Königswieser, T., & Winkler, S. M. (2022) *Using Explainable Artificial Intelligence for Data Based Detection of Complications in Records of Patient Treatments*. International Conference on Computer Aided Systems Theory. Cham: Springer Nature Switzerland. S. 173-180.

Disclosure of Interest: None Declared

Optimizing Hospital Readmission Reduction with Predictive Machine Learning and Bundle Care Models: (2057) Mao Cheng-Hsien

ISQUA2024-ABS-2057

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Introduction: Unplanned hospital readmissions not only reflect the hospital's capabilities and quality but also lead to patient harm and increased expenses. Previous studies suggest that many readmissions could be prevented, highlighting the importance of identifying at-risk patients as a critical step in enhancing care quality. Our goal was to develop and evaluate machine learning models to predict 14-day readmissions based on derived features. By integrating an information alerts system and implementing a bundled care approach, our aim is to effectively mitigate avoidable readmissions.

Methods: This retrospective cohort study conducted in Taiwan aimed to develop risk prediction models for all inpatients discharged from Taipei Medical University Hospital between January 1, 2020, and June 30, 2023. Exclusions comprised patients aged < 20 years, those admitted for cancer-related treatment, baby birth, psychiatric condition, deceased during admission, or with planned readmissions. We extracted detailed electronic health records(HER) across seven categories: Discharge abstract, Ambulatory utilization, Hospitalization procedures, Nursing assessment and recording, Medication orders, Vital signs, Lab test results.

Initially, we evaluated over 229 potential variables were evaluated using six supervised machine learning approaches: eXtreme Gradient Boosting(XGBoost) , Artificial neural networks(ANN), Support Vector Machine(SVM), Random Forest (RF),Logistic Regression(LR), Decision Tree. Model performance was assessed using the Area Under the Curve (AUC). Patient data underwent 5-fold cross-validation, partitioned into training (80%) and testing (20%) sets. The top-performing models and daily systems were then employed to automate data collection for daily calculation of readmission risk for each patient.

The integration of alerts was implemented across three major information systems, namely COPE, nursing systems, and nursing station displays, to notify each inpatient of potential future risks. Furthermore, specific care bundles were formulated based on three risk levels (>80 %, 50%~80%, <50%). Subsequently, the medical team then tailored discharge plans, transitional care, and telemonitoring to ensure patients' continuity of care at home while maintaining communication regarding any changes in their condition.

Results: A total of 101,635 patients (56% female, 44% male, 41% aged 65 years or older) were included for training and evaluating models, with 2,337 (2.30%) experiencing readmission within 14 days of discharge for any reason.

The eXtreme gradient boosting (XGBoost) model outperformed with the highest AUC (0.79), accuracy (0.93), and F1 value (0.78). Conversely,Logistic regression (LR) performed substantially worse than the

other five models, with an AUC of 0.67. Utilizing the Shapley Additive Explanations (SHAP) method, we identified key indicators for the risk of 14-day readmissions, including prior readmissions, extended length of stay, increased hospital care utilization, frequent physician office visits, numerous prescriptions, chronic conditions, low hemoglobin levels, diminished foot muscle strength, frailty indicators, and the involvement of younger physicians. Subsequently, employing recursive feature elimination (RFE) recursively removes the weakest features, we reduced the variables to 27 potential predictors for the 14-day readmission prediction model, while maintaining the same AUC. These streamlined features offer clinical teams more intuitive insights.

From August 1, 2023, to January 31, 2024, the information system facilitated automated prediction for 15,732 hospitalized patients. Notably, when the predicted value exceeded a moderate threshold (>50%), prompting bundle care implementation, the system issued 2,076 warnings (13.2%). Impressively, the medical team responded to these alerts 1,873 times (90.2%), and subsequently implemented the recommended guidelines with a completeness rate of 88.5%. Concurrently, the calculated readmission rate within 14 days during this period was 2.08%.

Conclusion: In our study, the XGBoost predictive model had the best predictive performance and potential clinical application perspective. It can be used to identify high-risk patients at the early stage of hospitalization. Moreover, we integrated alerts functions into various information systems and implemented bundle care based on different risk levels. This approach enhances attention and enables more efficient, targeted interventions for high-risk patients, potentially surpassing the effectiveness of traditional care strategies.

Disclosure of Interest: None Declared

[Leveraging advanced analytics and electronic health data to monitor trajectories of medicine use in residential aged care: insights from the MED-TRAC studies: \(2991\) Nasir Wabe](#)

ISQUA2024-ABS-2991

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Introduction: Medication-related issues are widespread in residential aged care facilities (RACFs). The increasing availability of routinely collected electronic data in RACFs enables the application of advanced analytical techniques, such as Group-Based Trajectory Modelling (GBTM), to identify and monitor medicine use over time. This is critical for gaining valuable insights into the quality of medication management and for informing strategies aimed at improvement. We present results from the MED-TRAC (**MED**icine use **T**rajectories in **R**esidential **A**ged **C**are) studies, conducted as part of a large five-year project funded by the Australian National Health and Medical Research Council. This was a three-part study focusing on three areas of medicine use: polypharmacy, psychotropics and cardiovascular disease (CVD) medicines.

Methods: We employed a longitudinal cohort study design using electronic health data from 2,837 newly admitted permanent residents from 30 RACFs in New South Wales, Australia. In Study 1, polypharmacy was defined as the concurrent use of 9 or more regular medicines. Study 2, focused on psychotropics, and included three medicine classes: antidepressants, antipsychotics, and anxiolytics/hypnotics. Study 3, examined CVD medicines, and included six medicine classes (e.g., beta-blockers, diuretics). In each study, the prevalence of medicine use was measured weekly over 36 months. We applied GBTM—a technique commonly used in clinical research to identify distinct subgroups within a population that follow similar patterns of change over time—to characterise medicine use trajectories over 36 months. This study was reviewed and approved by the Macquarie University Human Research Ethics Committee (ref: 520231126749629).

Results: In Study 1, we identified five polypharmacy trajectory groups, including one group representing 25% of residents with persistently high polypharmacy (Fig 1). In Study 2, 6-group and 4-group trajectories were identified for dementia and non-dementia cohorts respectively. One in three residents with dementia, and one in five without dementia, concurrently used multiple psychotropics often for extended periods, which may put residents at risk. In Study 3, two to three distinct medicine use trajectories were identified across CVD medicine classes, with the highest rate of use observed for beta-blockers, and up to a quarter of residents discontinuing a CVD medicine class. Each trajectory group in the three studies exhibited distinctive baseline characteristics, providing a foundation for tailoring interventions to enhance medicine use in RACFs.

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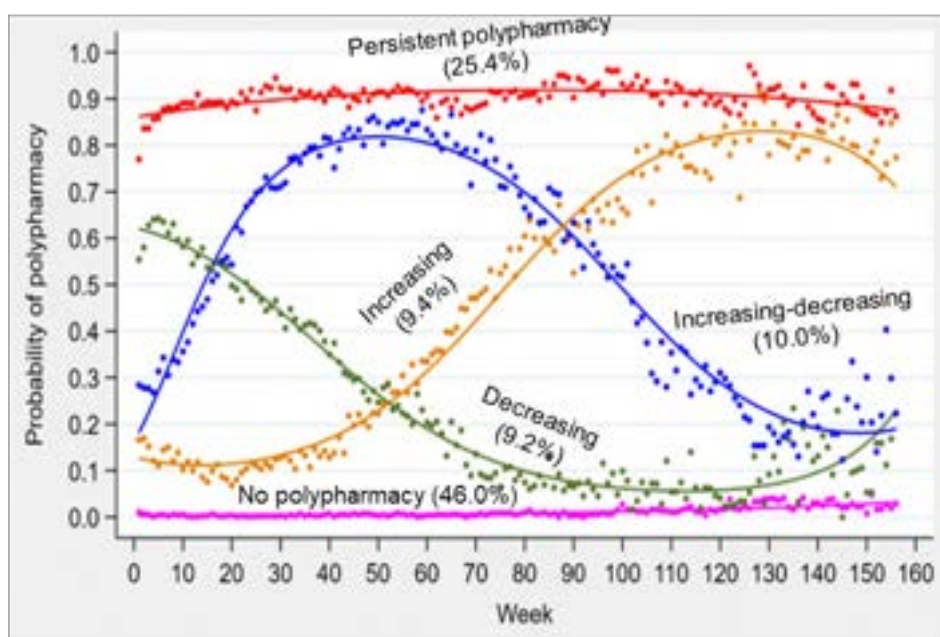


Fig 1. Polypharmacy trajectories. The solid lines indicate estimated probabilities; The dot symbol denotes the actual probabilities

Conclusion: Our MED-TRAC studies revealed varied patterns of medicine use in RACFs, with a notable proportion of residents following potentially inappropriate medicine use trajectories. These findings represent a preliminary step toward identifying opportunities for early and targeted interventions to improve prescribing practices in RACFs.

References: NA

Disclosure of Interest: None Declared

Digital Medical Devices for Professional Use: A new framework initiated by the French National Authority for Health (HAS): (2033) Simon Renner

ISQUA2024-ABS-2033

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Introduction: In the French healthcare landscape, most digital medical devices (DMDs) intended for professional use (e.g. diagnostic or clinical decision support systems) currently fall outside the national Health Technology Assessment (HTA) framework designed for reimbursement. Such DMDs are often based on artificial intelligence (AI) or even generative AI, raising specific questions on robustness, validation, ... Consequently, healthcare professionals (HCPs) may integrate DMDs into medical procedures without being fully informed about their performance or limitations and thus request guidance or HTA assessments to help them to choose relevant DMDs. A systematic assessment from an HTA point of view cannot yet be considered due to the number of existing DMDs and the rapid market turnover. Moreover, the overall absence of robust evidence to support their clinical performance and relevance represents an additional challenge for HTA bodies as well as HCPs. In this context and to address the growing integration of DMDs into medical practice, the French National Authority for Health (HAS) has begun to build a new trust framework for DMDs for professional use and AI in care, with the idea of promoting the diffusion of suitable digital innovation without adding additional constraints for companies. This tailored framework will include support for both professionals and hospitals to assist their selection of relevant DMDs, as well as core assessment works, to be developed over the next months.

Methods: After an initial review of the uses and requirements of the various stakeholders, the need to support healthcare professionals and facilities in their selection of DMDs was selected as the first phase in the implementation of the framework. Following a literature review, a taskforce of 27 independent experts (HCPs, AI experts, methodologists, ...) was established to produce a guide designed to help HCPs in their selection of relevant DMDs for professional use. The guide was developed with the aim of being applicable to all DMDs for professional use, identifying the key questions to be asked prior to integration. Significantly, all questions identified are not meant to provide specific answers, but rather to offer points of consideration for informed decision-making and, ultimately, to promote the safe use of DMDs, while stressing the need for rigorous evaluation. A draft of the guide was released for public consultation, allowing all stakeholders to contribute.

Results: This guide is the first step towards an innovative framework for DMDs for professional use and AI and aims to help HCPs and buyers in their selection of DMDs for professional use by identifying questions regarding the technology, its development, and pre-purchase actions to establish. The

primary questions relate to the evidence available, the technology's functioning principles (particularly if machine or deep learning is involved, which data were used for training and validation), the organizational, environmental, and economic consequences associated with the DMD's integration, the IT resources required, as well as legal and regulatory issues. Finally, the guide intends to promote pre-purchase experimentation as well as the identification of KPIs to assess a DMD's integration consequences and performance.

Conclusion: This guide is one of HAS' first contributions towards a trust framework for DMDs and AI technologies. Other tools and new innovative HTA frameworks dedicated to DMDs are under discussion to address evolving evaluation needs for clinical decision support systems, where AI and generative AI are rapidly spreading.

Disclosure of Interest: None Declared

Global Impact through a Local Lens: Introducing a Localized Accreditation Framework for Georgia: (1254) Katerina Tarasova

ISQUA2024-ABS-1254

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Introduction: Since 2014, the Public Health Institute of Georgia (PHIG) has been instrumental in advocating for the mandatory independent international accreditation of healthcare institutions within Georgia. Through a strategic blend of advocacy methods, including extensive social media campaigns, academic involvement, and continuous dialogues with healthcare stakeholders and governmental bodies, PHIG's persistent efforts led to the historic 2022 decree requiring all state-funded Georgian hospitals to undergo independent international accreditation. In 2023, PHIG entered into a strategic partnership with Accreditation Canada (AC), leveraging each organization's strengths and expertise to initiate the accreditation process for over 23 healthcare facilities across Georgia. The partnership's main objective was to implement international accreditation standards tailored to the Georgian healthcare context, aiming to elevate care quality through the Qmentum International™ framework. This initiative sought to marry PHIG's deep understanding of local healthcare needs with AC's global accreditation expertise to foster continuous quality improvement within Georgian healthcare facilities.

Methods: Underpinning this collaborative effort was the formation of a local expert team, well-versed in Georgian, with extensive healthcare experience. This team conducted a thorough analysis of Georgian healthcare legislation versus Accreditation Canada's standards, identifying opportunities to synergize local practices with international benchmarks. All training sessions and visits were conducted in Georgian at the healthcare facilities to ensure maximum relevance and impact. The strategic partnership emphasized weekly in-person coaching sessions, bi-monthly staff trainings on

accreditation matters, monthly process evaluations, and quarterly strategic meetings with senior management.

Results: The strategic partnership between PHIG and AC has facilitated the accreditation process for more than 23 healthcare facilities actively engaging with the Qmentum International™ framework. This collaboration has proven effective in adapting the accreditation model to the Georgian healthcare system, showcasing its potential for broader application in similar contexts internationally.

Conclusion: The strategic partnership between PHIG and AC highlights the significant impact of leveraging combined strengths and expertise in overcoming linguistic, financial, and cultural barriers to implement a localized accreditation framework. This initiative not only aligns Georgian healthcare practices with international standards but also serves as a scalable model for enhancing global healthcare quality. The commitment to delivering training in Georgian and on-site underscores a pragmatic approach to education and quality improvement, establishing a new standard for accreditation efforts worldwide.

Disclosure of Interest: None Declared

Through the eyes of the health care providers: Exploring the state of patient safety culture in a selected hospital in North West Province, South Africa: (2601) Sabelile Tenza

ISQUA2024-ABS-2061

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Introduction: Korea's healthcare system, anchored by national health insurance, provides broad access to medical services. The introduction of private insurance supplements has altered healthcare usage dynamics, notably affecting emergency department (ED) visits and the lengths of hospitalizations. This study evaluates the role of private insurance within a predominantly national health system, focusing on its implications for ED congestion and the distribution of healthcare resources.

Methods: In 2023, this observational study analyzed medical records from a 950-bed tertiary hospital in Korea, focusing on patients who utilized the ED and were subsequently admitted. Participants were categorized by their insurance type: those with national health insurance alone or those with both national and private insurance. The study expanded to assess insurance status, ED visit frequency, hospital stay duration, and total medical expenses to provide a comprehensive perspective on how insurance influences healthcare access and financial outcomes.

Results: Data from 36,338 patients were analyzed, with 26,199 (72%) covered solely by national insurance and 10,139 (28%) also holding private coverage. Patients with private insurance had a significantly higher average number of ED visits (1.4 ± 0.9) compared to those with only national insurance (1.2 ± 0.6 , $p < 0.001$) and longer hospital stays (7.6 ± 8.8 days vs. 3.6 ± 6.0 days, $p < 0.001$).

Their hospital charges were also significantly greater ($5,479 \pm 6,972$ USD vs. $1,909 \pm 3,995$ USD, $p < 0.001$), underscoring the influence of private insurance on escalating healthcare utilization and costs.

Conclusion: This study reveals the substantial impact of supplemental private insurance on healthcare utilization in South Korea, leading to more frequent ED visits, longer hospital stays, and increased costs. Highlighting a universal challenge, these results underscore the need for policy reforms to align the advantages of private insurance with the goals of healthcare system efficiency and equity on a global scale.

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Cho, Factors related to the frequent use of emergency department services in Korea BMC Emerg Med 23:1–10, 2023

Disclosure of Interest: None Declared

Analysis of enablers and barriers to After Action Review of patient safety events in an Irish hospital and identification of behaviour change techniques to support implementation: (2019) Siobhan E McCarthy

ISQUA2024-ABS-2998

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Introduction: After Action Review (AAR) is a non-hierarchical facilitated approach to learning from patient safety events and is included in the Incident Management Framework for the Irish health system. A national- level implementation strategy, co-designed by the Health service Executive (HSE) and RCSI University of Medicine and Health Sciences, involved an organisational readiness assessment and the training of staff as AAR facilitators using simulation. Approximately 500 staff in the health system have been trained, yet little is known about enablers and barriers to AAR post the training or about how to refine the implementation strategy to promote uptake, and consequent learning and improvement from events. Objectives were to (1) train hospital selected staff as AAR facilitators, (2) explore enablers and barriers to implementation six months post the training and (2) identify evidence-based behaviour change techniques and policy recommendations to promote AAR uptake. These formed part of a larger mixed-methods study at an Irish hospital¹.

Methods: Fifty staff were trained as AAR facilitators. Focus groups explored enablers and barriers to AAR implementation, using an interview protocol informed by the Theoretical Domains Framework (TDF). Framework analysis was applied to the data and key TDF enablers and barriers were mapped to the Behaviour Change Wheel to identify behaviour change techniques to enhance uptake of AAR.

Participation in the research by trained facilitators was voluntary and the study was approved by the RCSI and study site Research Ethics Committees.

Results: Four focus group discussions with 14 AAR facilitators were conducted. Domains which contained the richest data on processes acting as enablers and barriers to AAR implementation were identified². Subsequently, multiple behaviour change techniques were identified to promote uptake. For example, open-access video simulations of AAR have been made available³.

Conclusion: To promote implementation of AAR, it is beneficial to have an in-depth understanding of enablers and barriers, so that evidence-based strategies to promote uptake can be identified. These new implementation strategies will require testing for implementation outcomes and effectiveness.

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Disclosure of Interest: None Declared

What's in a Learning Health System? A rapid review of emerging definitions, models, and frameworks: (3002) Georgia Fisher

ISQUA2024-ABS-3002

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Introduction: The concept of a Learning Health System (LHS) continues to be globally embraced by researchers, managers, and clinicians that aim to create high quality and safe health systems. To achieve these goals and provide safer, higher quality care, it is essential that LHSs are well defined, designed according to established theory, and underpinned by evidence-based frameworks and models. This rapid review aimed to comprehensively describe how LHSs are defined, their underlying models and frameworks, and the theories that are used in their development.

Methods: The PubMed, Embase, and Scopus databases were searched for articles about LHSs published between 01/01/2018 to the 31/12/2023. Articles were included that had an explicit focus

on LHSs; described a definition, model, or framework of an LHS; were peer reviewed; and were published in English. Each review team member screened a portion of titles and abstracts, and then full texts against the review criteria, and their decisions were then checked by another reviewer. Each reviewer extracted data from a portion of the included full texts, which was then checked for accuracy by another reviewer. We extracted data related to study design, LHS type and setting, LHS definitions and their citations, and details of LHS models and frameworks. The quality of each study was appraised by a tool relevant to its design. Data that described each study design and LHS setting were summarized using descriptive statistics, and all LHS definitions were narratively synthesised. LHS models and frameworks underwent a thematic framework analysis using the modified Institute of Medicine (IoM) LHS model¹, comprising Science and Informatics, Patient – Clinician Partnerships, Continuous Learning Culture, Incentives, and Structure and Governance. We also inductively analysed any data that did not fit into these categories to identify other key LHS domains in the literature.

Results: The search returned 983 unique records. A total of 573 records were excluded at title and abstract screening, followed by a further 184 at full text review. A total of 226 full texts were included in this review. Most descriptions of LHSs were published in high-income countries, including the USA (n = 132), Canada (n = 34), and the UK (n = 15). There were 109 descriptions of LHSs that had been implemented in real world settings, 114 propositions of theoretical or future LHSs, and five articles that did both. While most studies described LHSs for general healthcare (n = 25), there was an enormous array of LHS foci, including oncology (n = 11), COVID-19 (n = 8), paediatrics (n = 8), and genomics (n = 4). The most used definitions of LHS were by the IoM (now National Academy of Medicine). All five LHS domains were common in included models and frameworks, however, the most prevalent focus was on Science and Informatics and creating a Continuous Learning Culture. Two additional key LHS domains were identified: Equity, particularly related to vulnerable communities; and Ethics, particularly related to digital data privacy.

Conclusion: The growth of the evidence base for LHSs is exponential. Models and frameworks of LHSs have firmly left the realm of pure theory and are now being implemented in a wide variety of real-world health settings. However, greater investigation of LHSs in low- and middle-income health systems is needed. Further, while key domains of LHSs are frequently being addressed, the widespread addition of Equity and Ethics should be considered in future iterations.

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Disclosure of Interest: None Declared

Mortality 30 days after acute myocardial infarction: Results of a French national indicator based on medico-administrative data: (3283) Linda Banaei-Bouchareb

ISQUA2024-ABS-3283

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Introduction: Since 2015, the Haute Autorité de santé (HAS) - or French National Authority for Health - has been developing outcome indicators based on national medico-administrative databases, using a robust method conceived to improve care quality and safety. This work is achieved with a multidisciplinary working group of healthcare professionals, medical information coding doctors and patients.

In 2022, an outcome indicator in cardiology has been validated by HAS. It assesses mortality 30 days after acute myocardial infarction (MI) based on the French national health data system.

The aim of this retrospective study presents a 2021 data analysis and results of the indicator measuring mortality 30 days after MI, at the national and hospital levels.

Methods: All adult patients with a hospital stay for acute MI (principal diagnosis ICD-10 codes: I21.0, I21.1, I21.2, I21.3, I21.4, I21.9) that occurred between January 1st and November 31st, 2021, in the French national data system were selected. Main exclusion criteria were patients not admitted from their home, without a permanent address in France, with death not related to in-hospital care (e.g. palliative care, discharge against medical advice) and/or stays with data or linkage problems.

Mortality was looked for at 30 days from admission, within acute MI stays and after discharge, in and out of hospitals. Adjustment factors are age, gender, STEMI (ST segment elevation myocardial infarction), 11 comorbidities detected within 3 years before admission, 3 acute and severe complications during the acute MI stay, supplementary universal healthcare for individuals on low income. Crude mortality rates and a “standardized ratio of observed on expected mortality” were calculated.

Results: 754 hospitals and 77 417 acute MI stays were assessed. Overall, 30 days mortality rate was 5.9%. It was significantly higher in females (8.2%), in patients with STEMI (7.9%), with a history of stroke (11%), heart failure (12.8%), kidney failure (12.6%), diabetes (8.35%) and cancer (8.7%). 72% of mortality occurred during the initial MI stay.

Among 521 hospitals with at least 10 MI stays, 91% had a standardized ratio within 2 standard-deviation (SD) limits of the funnel plot; 3 (0.6%) above +3 SD, 40 (7.7%) were outliers between +2 SD and +3 SD and 2 (0.4%) outliers below -3 SD.

Conclusion: HAS validated an outcome indicator measuring mortality 30 days after acute MI at the national and hospital levels, using a robust method. National analysis using claim data are consistent with previous studies. Results of this indicator at the national and hospital levels have been made available to hospitals since December 2022, based on 2021 and 2020 data. National figures were similar in 2020, despite 5% less MI stays. HAS is expecting the feedback of French hospitals regarding the use of this indicator as a tool for quality improvement and risk management.

Disclosure of Interest: None Declared

Lightning Talks

Perception of stakeholders' readiness and recommendations for health system policy and implementation in scaling up Hospital-at-Home care model: A descriptive qualitative study: (1859) Crystal Min Siu Chua

ISQUA2024-ABS-1859

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Introduction: Amid escalating healthcare demands due to shifting demographic patterns, innovative care models like the Hospital-at-Home (HaH) emerge as promising solutions. The study aims to assess Singapore's health system readiness for implementing the HaH model and to identify ground and policy strategies for its widespread adoption.

Methods: This study used in-depth semi-structured individual interviews on 32 healthcare stakeholders (HaH programme leads, programme implementers, and health ministry's policymakers) between October to November 2023. Interviews were transcribed and thematically analysed using Bruan and Clarke's (2006) six-step inductive approach.

Results: Perceived readiness and recommendations to scale were supported by four themes: (1) Overall readiness towards HaH, (2) Recommendations for ground implementation, (3) Key policy enablers for HaH, and (4) Envisioning the future approach to service delivery and collaborations. Thematic analysis revealed the intricacies of scaling up HaH through the multi-stakeholders' perceptive. Overall, most stakeholders expressed readiness and are motivated to scale HaH, though they require resources and strategic direction. The importance of having streamlined processes, up-skilled workforce, adequate resources, and sound financing mechanism is key to scaling up HaH.

Conclusion: The findings contribute significantly to the body of implementation science, offering evidence-based policies, guidelines, and protocols for HaH care models. Our study's results offer valuable insights not only for Singapore, but also for countries with similar healthcare challenges, paving the way for effective and efficient healthcare delivery amid changing demographic landscapes.

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Disclosure of Interest: None Declared

AI tracking Multidisciplinary Decision Making: Enabling a regional support tool: (3392) Dominic Van Loggerenberg

ISQUA2024-ABS-3392

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Introduction: The integration of AI in Healthcare allows for a unique opportunity to replicate advanced decision-making systems that are not limited by resources and regional constraints. Within the LMI environment of South Africa, Multi-Disciplinary care is recognised as the preferred gold standard. However, this service is not easily offered to all patients. AI-driven decision-making tools help bridge this gap.

Methods: The BCCE is in the process of developing and training an AI-adjacent MDM decision-making tool that incorporates internal patient scoring systems, global guidelines and time-based pattern analysis to replicate the decision-making making process of their large (35+) specialist Breast Oncology MDM.

Initial development digitalised the patient intake and discussion form, including clinical, radiological and pathological reports that were scored alongside patient-specific treatment co-morbidities. This was matched on a three-fold track aligning with international guidelines, MDM decision-making considerations and uniquely a low-resource solution as an alternative to international/first choice solutions.

Results: Initial development of the AI tool required re-analysis and integration of patient intake and discussion to expand on the historical triple assessment (Clinical Radiological and Pathological) to include a deeper clinical review of co-morbidities and advanced patient clinical and demographic considerations.

The correlation between International guidelines and MDM team decisions aligned for the greater majority of patients, deviating only from what was considered novel treatment options that were discussed with reference to new studies and potential changes to guidelines that have not reached a global consensus.

The largest deviation was the specific task of generating minimal accepted treatment options for cases that would not be addressed at facilities capable of providing first-choice treatment. The benefit and implementation of this data are still in their conceptual phase and have not been integrated into a live case environment.

Conclusion: The demonstrable benefits of AI decision-making tools in LMI environments can assist in providing top-tier care in the form of academic expertise and experience regardless of the regional and infrastructural limitations. If care is taken to align the supportive tools with the limitations of their matched environments, optimal care choices that match the standards of Multi-disciplinary teams can be provided in environments that previously would not.

Disclosure of Interest: None Declared

A Comprehensive Survey of the Clinical Trial Landscape on Digital Therapeutics: (2275) Han Yao

ISQUA2024-ABS-2275

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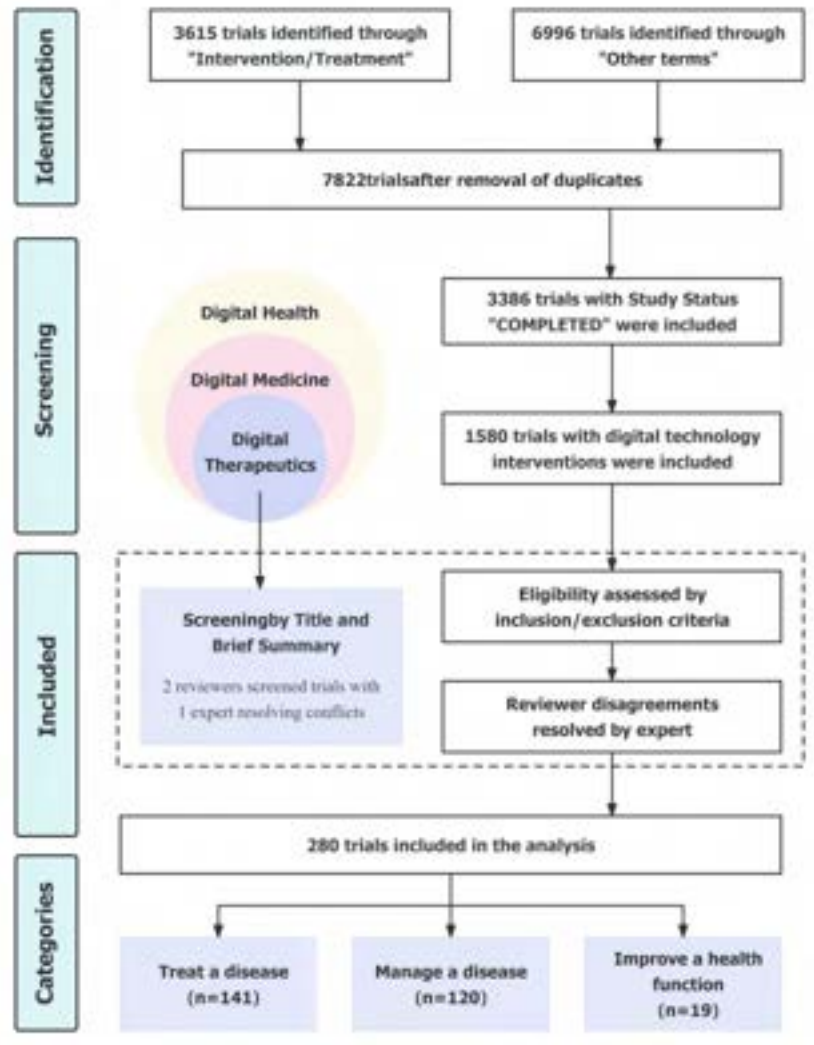
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Introduction: Digital therapeutics (DTx) is an emerging and groundbreaking medical intervention that utilizes health software to treat or alleviate various diseases, disorders, conditions, or injuries. Although the potential of digital therapy is enormous, it is still in its nascent stage and faces multiple challenges and obstacles. The purpose of this study is to provide an overview of all DTx-related clinical trials in ClinicalTrials.gov and to promote the advancement of DTx.

Methods: Two reviewers and one expert collaborated to evaluate data from all clinical trials of digital therapeutics registered on ClinicalTrials.gov as of August 8, 2023. Our analysis encompassed trials that utilized digital therapies independently, as well as trials that combined digital interventions with traditional clinical approaches. Incomplete trials, interventions lacking an evidence-based foundation, and digital interventions unrelated to treatment, management, or prevention purposes were excluded from our analysis. By utilizing official disclosures, we extracted and analyzed basic information about product launches and primary outcome measures from these clinical trials.

Results: We conducted a thorough review of all digital therapy studies registered on ClinicalTrials.gov, analyzing a total of 280 eligible trials categorized into treating a disease (141, 50.4%), managing a disease (120, 42.9%), and improving a health function (19, 6.8%). Registered and completed trials of digital therapies have primarily focused on mental and behavioral disorders, neurological disorders, and endocrine, nutritional, and metabolic disorders, which together represent 59.3% of trials conducted. Digital therapies have undergone three phases of development, with the number of relevant studies increasing annually. However, their trial design and conduct remains inconsistent and inadequate, and many studies remain small with limited evidence for their trial endpoints. Randomized controlled trials (RCTs) comprised 67.5% of completed clinical trials on digital therapies. Furthermore, 36 trials (12.9%) involved products that were already approved for marketing. As the digital therapy industry is still in its early stages and lacks a standardized system for clinical design, clinical design and endpoint selection vary across marketed products.

Image:



Conclusion: The increasing number of clinical studies on digital therapeutics and their demonstrated ability to address a wide range of healthcare challenges highlights the growing importance of digital therapeutics in shaping the future of digital healthcare. However, despite their potential, digital therapeutics still face significant challenges in achieving widespread dissemination and adoption. There is a lack of a comprehensive, detailed, and harmonized global classification of digital therapies, as well as clinical trial specifications and standards for different technology modalities. Furthermore, there is a need to further explore ways to assess the methodology and quality of relevant study designs, strengthen regulation, standardize trials to ensure clinical efficacy, enhance data security measures, and improve the quality of healthcare services by advancing evidence-based approaches.

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Disclosure of Interest: None Declared

Use process control and digital transformation to improve operating room efficiency: (1807) Hsing-Hao Su

ISQUA2024-ABS-1807

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Introduction: The operating room (OR) accounts for a large part of the hospital's revenue. It is also a department with complex operating procedures, intensive resources and high costs. As competition in the healthcare industry intensifies, it is necessary to find management methods to improve operating room usage efficiency and patient safety. Multiple factors have been found to contribute to ineffective operating room care and patient safety. These factors range from surgical scheduling, preoperative assessment and care, operating room management and postoperative recovery, to human factors such as insufficient manpower, equipment and instruments that add to the complexity.

Methods: There are multiple time points for patients to go from the ward to the operating room for surgery, including waiting after registration, entering the operating room, arrival of the anesthesiologist, completion of induction of anesthesia, completion of preoperative preparation by the surgeon, start of surgery, completion of surgery, and transfer to the recovery room and connect the next patient to the operating room. Each node has a time record, and improvement strategies are proposed through process control and analysis of various delay factors. Based on patient safety, surgeons and anesthesiologists set time benchmarks for different surgeries, and we control those who exceed the time limit. In addition, an electronic whiteboard is used to display the current status of each operating room, anesthesia and operating surgeons are notified via text messages, and AI is used to optimize scheduling and improve surgical utilization.

Results: With the determination of the hospital superintendent to advance the first incision time, the operating room saves about 400 hours every quarter compared with the previous period. Through the process control with digital transformation, including connection time, anesthesia induction time, and surgical preparation time all have been reduced, and the average number of operating room hours required for each operation has also been reduced. After improving efficiency, it is equivalent to save totally about 2300 hours per quarter compared with before. The total number of

surgeries has increased compared to the past, and the number of overtime hours worked by nurses has also decreased. It is worth mentioning that the complication rate of patients did not increase during this period.

Conclusion: Smart surgery management integrates patient safety, humanity, digital transformation, and all aspects of surgery. Our series achieve the goal of reducing the overtime burden and improving performance of operating room.

Disclosure of Interest: None Declared

The digital direct-to-consumer telemedicine revolution: Consumer perspectives of benefits and pitfalls: (2466) Louise Ellis

ISQUA2024-ABS-2466

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Introduction: With the advent of the COVID-19 pandemic, telehealth rapidly became the ‘new normal’.¹ The pandemic acted as a catalyst for policy makers and providers to embrace telehealth as an accepted form of health service delivery and as a solution to meeting continued increased demand for services.² At the same time, consumers’ expectations of healthcare have changed, with many consumers now looking for seamless digital health care experiences similar to those found in the online retail sector, thereby avoiding the hassle and frustrations of wait times and in-person consultations.³ In recent years, Australia and other countries have witnessed the exponential rise of private direct-to-consumer (DTC) services. Providing virtual care services that are marketed directly to, and initiated and paid by the patient, they offer services ranging from general practitioner services through to targeted treatment pathways for specific issues or conditions (e.g., weight loss, or sexual health concerns).² With limited existing research in this area, this study examines DTC consumers’ perspectives of their use of such services, including benefits and concerns.

Methods: An anonymous online survey of a sample of 206 DTC consumers was conducted in November 2023. Participants were recruited through an Australian digital healthcare company that features a number of distinct DTC brands. The survey included a combination of quantitative and qualitative questions asking about their use of DTC services, perceived benefits, and about any issues or concerns they may have.

Results: Two-thirds of survey participants were accessing DTC services for prescription skincare (67%), followed by men’s health treatments (36%), and reproductive healthcare (5%), with 10% of participants accessing multiple DTC services. The vast majority of participants reported positive experiences of their use of these services: 92% agreed that using DTC services had given them ‘greater autonomy when managing their health’ (92%); and 92% agreed that they had been provided with

‘sufficient information, advice and support in relation to their health concern/s’. Most commonly, participants accessed DTC telemedicine due to its ‘convenience’ (47%) and ‘choice’ (i.e., wide range of products and services available) (34.5%). Open ended responses revealed that participants also appreciated the ‘anonymity’ that DTC services provide, especially for sensitive issues such as erectile dysfunction. Nevertheless, participants raised concerns, particularly around the costs associated with the prescribed medications (19%) and privacy concerns over ‘how their information is being used’ (15%), as well as the ‘lack of integration’ of these services with the wider health system (12%).

Conclusion: DTC telemedicine is a fast-growing industry offering significant advantages to healthcare consumers, including improved access, convenience, choice and anonymity. From a policy perspective, some of the biggest concerns with DTC services centre on the cost and effectiveness of treatments, the lack of follow-up and monitoring, and the lack of regulation.^{4,5} These services also often feature strong digital marketing campaigns and are commercially driven, bringing into question the extent to which profits are being prioritised over the health of consumers.² This is one of the first studies of DTC consumers perspectives and experiences; however, as the DTC industry continues to grow, there is a need for long-term research and evaluation.

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Disclosure of Interest: None Declared

Prioritising electronic health record optimisation to reduce technology-related prescribing errors and improve patient safety: results from two tertiary paediatric hospitals: (2387) Magda Z Raban

ISQUA2024-ABS-2387

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Introduction: While electronic health records (EHRs) can improve care, they can often lead to unintended consequences. One such unintended consequence affects medication safety in the form of technology-related errors (TREs), which have been found to account for up to 40% of prescribing errors after the implementation of an EHR. Addressing TREs to improve medication safety requires an understanding of how they occur, i.e. their underlying mechanism. However, EHR managers are often flooded with requests for system optimisation, and thus prioritising optimisation is crucial.

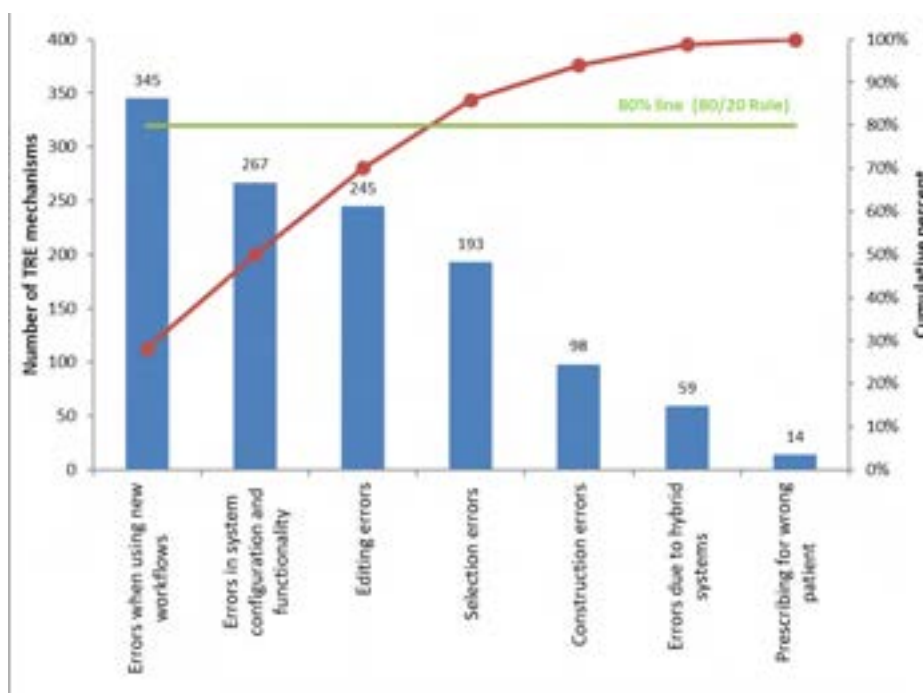
One approach to prioritising quality improvement initiatives is the use of the Pareto principle to identify the causes contributing to 80% of the effects, i.e. the vital few. Targeting the vital few will deliver the largest quality and safety gains. In this study, we aimed to examine the relative frequency of TRE mechanisms to identify priority areas for EHR optimisation to reduce TREs at two tertiary paediatric hospitals and examine whether the priorities differ by site.

Methods: Electronic medication charts and records of ~1200 patient admissions each at two tertiary paediatric hospitals were reviewed for prescribing errors by an experienced clinical pharmacist. Each prescribing error was assessed to determine whether it was technology-related. A TRE was defined as an error where the functionality or design of the EHR likely contributed to the error. Each TRE was then examined to identify the underlying mechanism of the error, or how the error happened. Mechanisms were classified using the Technology-Related Error Mechanism (TREM) classification, which has 7 categories of mechanisms. Pareto charts were generated to identify the TRE mechanisms that contributed to 80% of the TREs and explore possible EHR enhancements.

Results: There were 10,596 and 8335 medication orders reviewed for errors at hospital 1 and 2, respectively. Of the 1638 (hospital 1) and 1841 (hospital 2) prescribing errors identified, 28% were assessed as technology-related. At both hospitals, four mechanisms contributed to 86% of TREs (Figure 1). When examining results by site, the same four mechanisms contributed to 80% of the errors, however their relative frequency differed. For example, at hospital 1, the top error mechanism was errors that occur when using new workflows (33% of all errors), and at hospital 2, the top mechanism was editing errors (24% of all errors).

Examples of errors that occurred when using new workflows included failure to view the updated medication profile prior to prescribing. Examples of errors in system configuration included rounding rules in the dose calculator which resulted in dose errors for younger children.

Image:



Conclusion: Understanding the relative contribution of the underlying mechanisms of TREs can assist in prioritising EHR optimisation activities. In this study, among other mechanism errors, addressing dose calculator rounding rules was a low hanging fruit that would address a large portion of errors. Recommendations from these results are available in the Health Innovation Series on e-Medication Safety.¹

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<https://www.mq.edu.au/research/research-centres-groups-and-facilities/healthy-people/centres/australian-institute-of-health-innovation/our-projects/Health-Innovation-Series/health-innovation-series-e-medication-safety>

Disclosure of Interest: None Declared

How well do electronic health records support medication administration in paediatric hospitals?: (2422) Magda Z Raban

ISQUA2024-ABS-2422

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Introduction: Accurate documentation of clinical care is important to ensure care quality, safety and continuity, and is a professional responsibility of healthcare workers. Electronic health records (EHRs) are being implemented in hospitals worldwide to support these objectives. Automation in EHRs can improve documentation efficiency, however little is known about the impact of EHRs on the accuracy of documentation. Accurate documentation of medication administration is particularly important given that medication errors continue to be the leading cause of incidents in hospitals. Few studies have examined how effectively EHRs support medication administration documentation and processes, and the design features that facilitate accuracy. Thus, we aimed to compare the accuracy of medication administration documentation in an EHR with paper medication charts at a tertiary paediatric hospital.

Methods: This was part of a larger study examining the impact of an EHR on medication errors in a tertiary paediatric hospital, Sydney, Australia. Trained nurse observers recorded details of medication administrations before and after implementation of electronic medication management in an EHR. Recorded details included whether the medication administration was signed for, time of signing, and the method of administration (e.g. route of administration). The observed data were then compared to the nurses' documentation on medication charts to identify discrepancies. The outcomes were the proportion of administrations with: i) no signature; ii) no time; iii) inaccurate documentation of method of administration, and iv) ancillary instructions not matching doctors' instructions. Ancillary instructions could be automated in the EHR, or added by a pharmacist on paper charts. We also examined the difference in the administration time documented compared with the actual time medication was given.

Results: Observers captured details of 5137 administrations given by 298 nurses. Few administrations had no signature, with no difference ($p=0.33$) between EHR (1.0%, $n=29$) and paper charts (1.3%, $n=27$). Similarly, administrations with no time documented were infrequent on paper charts (1.2%, $n=26$) and in the EHR (0.3%, $n=10$, $p<0.001$). However, the proportion of administrations with inaccurate documentation of the method of administration (e.g. route) was higher in the EHR This

inaccuracy occurred most frequently for paracetamol, piperacillin/tazobactam and cefazolin, and was related predominantly to the route of administration (e.g. IV injection vs infusion). There was a conflict between ancillary instructions and the doctors' prescription in 1.0% (n=21) of administrations from paper charts compared with 2.3% (n=28) from the EHR ($p<0.001$). The documented time of administration was less than 5 minutes from the actual administration time for 63.2% (n=639) of administrations on paper charts compared with 81.8% (n=2339) of administrations in the EHR ($p<0.001$).

Conclusion: The completeness and accuracy of documentation of medication administrations was generally high using paper or EHR charts except for the method of administration. We found 1 in 10 administrations had an inaccurate method of administration in the EHR, which may have important implications for patient care. Auto-population of this data field in the EHR likely facilitates inaccurate information. Allowing nurses to annotate details of an administration when signing off may improve accuracy. EHR use was associated with a reduction in the time lag between administration and recording time of administration suggesting improved efficiency in the process.

Disclosure of Interest: None Declared

Community engagement to build a bridge: an empirical examination of the strategic large-scale redesign of future health services: (2252) David Greenfield

ISQUA2024-ABS-2252

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Introduction: Community engagement can result in better health outcomes across multiple morbidities. Hence, community engagement is being conducted in multiple ways, transforming how health services conceptualise, organise and deliver care, including through the community participating in long term care and strategic planning. The challenge for healthcare policy makers, managers and practitioners is finding ways to effectively collaborate with patients and the broader community to plan, deliver and evaluate services. The study purpose is to examine how health managers engage the community with the strategic redesign of health services. We present strategies and actions for those tasked with managing large scale redesign and building new healthcare facilities.

Methods: The study setting is a large health district in New South Wales, Australia and focused on four large scale redevelopment projects, total value at A\$2.8 billion. The study employed a multi-methods design comprising semi-structured interviews and focus groups. Participants were professionals (n=24) involved in the strategic planning of health facility redevelopment. Thematic analysis was used to identify, analyse and report common responses.

Results: Three issues emerged as significant factors influencing engagement, including: establishing a new mindset to service planning and delivery; future proofing service delivery; and, management of stakeholder expectations. Collaborating with diverse populations introduces more ideas driving

creative approaches to developing models of care and questioning about what other interventions can occur. Moreover, the benefits then extend further beyond the building process as engaging with the community leads to better health outcomes across multiple health issues that significantly impact individuals, populations and the healthcare system.

Conclusion: Large scale redevelopment projects provide a platform for the strategic redesign of health services. When doing so, engaging the community with strategic planning, implementation and evaluation of healthcare services can lead to improved care outcomes. Community engagement with a forward-thinking lens fosters an environment that allows flexible, strategic planning. Additionally, strategic community engagement provides opportunities for codeveloped systems, structures and processes that facilitate ongoing engagement.

Disclosure of Interest: None Declared

From Bits to Brilliance: Enhancing the Efficiency of Cancer Registry Coding Quality Review by Human-factors engineering digitalization at a Medical Center in Taiwan: (1784) Mau-Shin Chi

ISQUA2024-ABS-1784

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¹Cancer Registration Division, Cancer Prevention and Management Center, ²Information Department, Application System Maintenance Section, ³Cancer Prevention and Management Center, ⁴Department of Chest Medicine, ⁵Center for Quality Management, ⁶Superintendent Office, ⁷Department of Radiation Therapy & Oncology, Shin Kong Wu Ho-Su Memorial Hospital, Taipei, Taiwan

Introduction: Ensure precise coding through medical record reviews is crucial for cancer registration. The current review process involves case selection, reviewer assignment, form printing, binding, and distribution, followed by statistical analysis and reviews. Completion time of the review process sits between one week to two months. Cancer registrars spent significant timings in the follow-ups, primarily due to misplaced paper forms requires reprinting, and incomplete fields after form retrieval. The primary goal of the study is to identify determinants impacting review process by interdisciplinary team to formulate strategies achieving 50% reduction in the overall reviewing time.

Methods: This study centers on the review physicians and employs a questionnaire survey about the reviewing process. The questionnaire underwent prior expert validations before deployed to 38 reviewing physicians. The results were discussed to the interdisciplinary team using SIPOC Model to enhance mutual understanding (Fig. 1). Through collaborative brainstorming, augmented by in-depth analysis using ChatGPT, we consider a user-centric approach and integrate a human-factors engineering to minimize errors and maximize convenience. This integration is designed to filter cases and automatically assign 15% of newly diagnosed cases for review. Following validation by cancer registrars, the system then assigns tasks to review physicians, and streamlining communication through SMS. The process was then optimized with ECRS method for quality review (Fig. 2). A statistical

analysis of review records is conducted to calculate computer operation steps and process timing, affirming the improvements.

Results: Survey results show that 61% of physicians temporarily delay tasks due to the time-consuming review steps, especially handling paper forms and dealing with misplacement issues. The introduction of a human-factors engineering digitalization system enables physicians to conveniently conduct computer-based reviews within the hospital or via VPN-secured channels. Statistical analysis shows a reduction in computer operation steps from an average of 16 to 11 per medical record. The median total review time significantly decreased from 19,199 (13.33 days) to 7,048 minutes (4.89 days), achieving a completion rate of 126.5% and progress rate of 63.3%. This streamlined digital process not only reduces workload for cancer registrars but also brings intangible savings in manpower resources and costs. It aids in the smooth transition to paperless operations and sustains our improvements (Fig. 3).

Image:



Fig.1: SIPOC Model Breakdown of Cancer Registration Review Workflow

Flowchart application case (after improvement)

Work name:	Cancer registration coding quality review	Time:	2022/10/3					
Working department:	Cancer Control Center Cancer Registration Section	Place:	Cancer Control Center Office					
Researcher:	Yan-Qing Chen	Reviewed by:	Wei-Mei Chen					
Job Instructions	Symbols	distance (meters)	quantity (pieces)	time (minutes)	Improvement points			
					Eliminate	Combine	Rearrange	Simplify
1. Query Review List	○ → □ → ▢ → ▣ → ▤	14.0	4.7					
2. Confirm Review Cases	○ → □ → ▢ → ▣ → ▤	45.0	1.5					
3. Check Responsible Physician for Review Cases	○ → □ → ▢ → ▣ → ▤	45.0	67.5					
4. Select Review Physician and Assign Cases	○ → □ → ▢ → ▣ → ▤	45.0	0.8					
5. System Automatically Sends SMS Reminder	○ → □ → ▢ → ▣ → ▤	45.0	0.0					
6. Call to Verbally Remind the Physician	○ → □ → ▢ → ▣ → ▤	10.0	10.0					
7.1 Physician Responds to Review Form	○ → □ → ▢ → ▣ → ▤	45.0	6912.0					
7.2 Visually Compare for Consistency	○ → □ → ▢ → ▣ → ▤	45.0	48.8					
8. Confirm Status of Cancer Registrar Coding Quality Review Form	○ → □ → ▢ → ▣ → ▤	45.0	2.3					
9. System Automatically Generates Consistency Rate Report	○ → □ → ▢ → ▣ → ▤	45.0	0.2					
10. Draft a Review and Improvement Report, Archive	○ → □ → ▢ → ▣ → ▤	0.0	0.0					
Grand Total				7047.8				

Fig.2: ECRS analysis method optimized operating procedures



Fig.3 : Countermeasure implementation timeliness improvement ratio chart

Conclusion: The study successfully achieved its primary goal of 50% reduction in overall review time. The introduction of structured information systems by human-factors engineering digitalization enhancement, and the electronic forms optimized the review process, and provided economic benefits. The digitalizing processes may hold a potential to improve healthcare operations, particularly in cancer review and cancer care quality.

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Disclosure of Interest: None Declared

Digital Health Transformation: "What and How to Achieve Success?": (2667) Rr Tutik Sri Hariyati

ISQUA2024-ABS-2667

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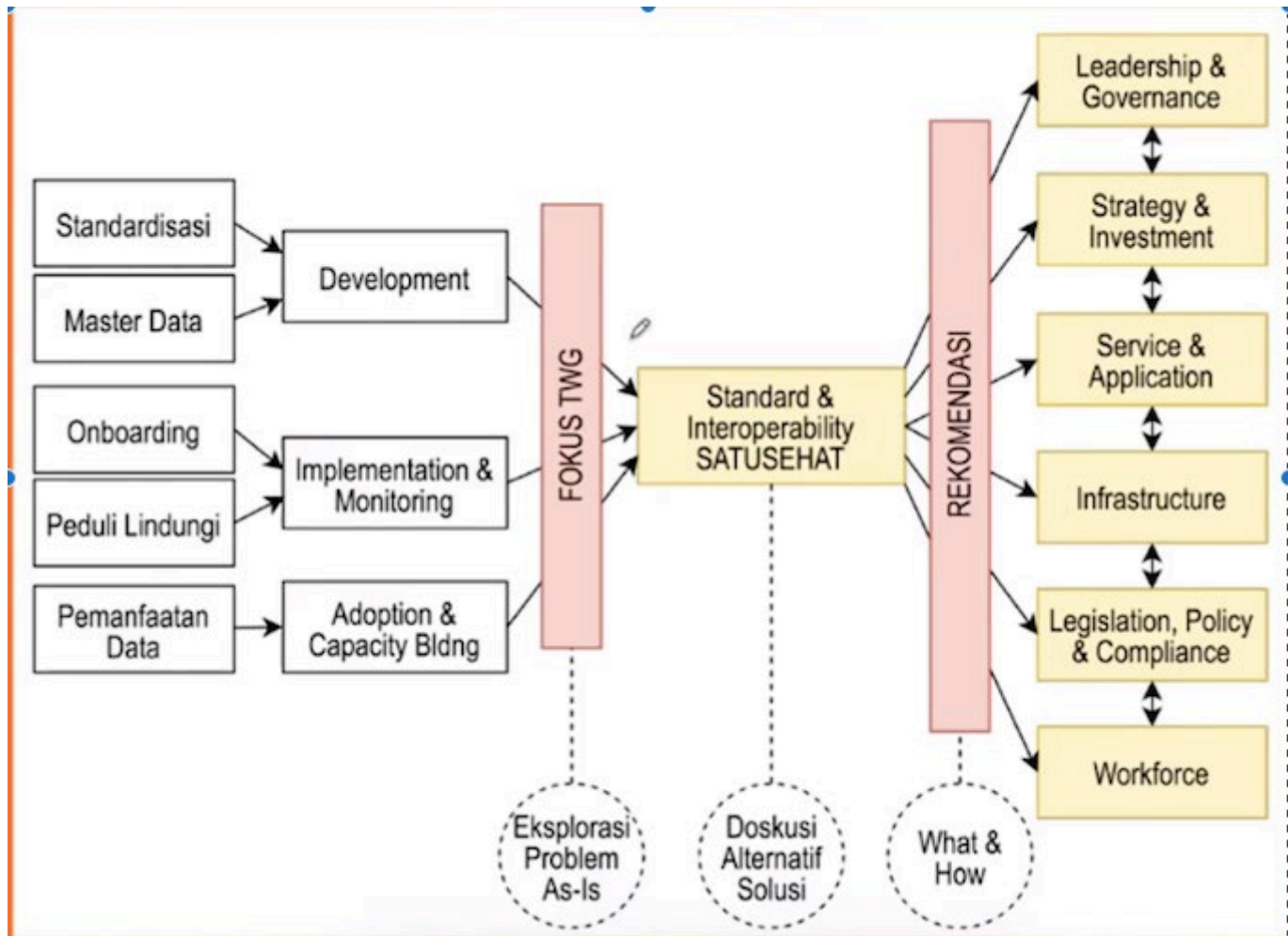
Introduction: Digital health transformation aids in improving health care quality and reducing health costs since health services-related information is open for people and helps them to avoid disparities in the standards of health services provided. Many efforts have been implemented to make the digital health transformation a success, including the creation of a digital ecosystem, that the team has helped accelerate society's adoption of the disruptions influenced by the digitalization transformation.

Methods: This research aims to analyse assistance in accelerating the implementation of electronic medical records and data integration of "SATU SEHAT Indonesia." The design used was descriptive qualitative through Focus Group Discussions (FGD) with eleven (11) participants from the team working group (TWG) formed by the government to help implement digital health transformation. Other participants are users and leaders of organizations involved in EMRs implementation. The FGD was conducted in the meeting online room and was held for about 60 minutes. All information from the participants were recorded by tape recording. At the end of the meeting, a number of unclear questions were asked again. All data in this study have been verified and reached saturation at the end of the interview. The FGD ended when all questions were answered, and all participants submitted their information. Transcripts were read twice to catch any writing error, then the data were organised, extracted to find meaningful using thematic approach.

Results: The results of the transcripts analysis obtained four themes. The themes namely Team Working Group tasks, benefits of EMRs, human resource and infrastructure constraints, and the need digital

transformation regulation. The perceived benefits are time effectiveness, fully documented reporting, easy coordination, bridging referrals, and the costs should be cheaper. The policies required are regarding data release, data security and confidentiality. TWG's task is to help develop standardization, assist adoption & implementation, utilization and data analysis.

Image:



Conclusion: Many strategies are needed in implementing digitalization, including regulations and efforts to reduce obstacles due to the inability of human resources and infrastructure. The TWG is expected to be able to oversee implementation through standardization, assisting adaptation and utilizing data for health quality.

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Disclosure of Interest: None Declared

A Sustainable Health Technologies Innovation Model To Improve LRS Clinical Outcomes: (3327) **Stefano Bergamasco**

ISQUA2024-ABS-3327

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¹Liaison Director, Global Clinical Engineering Alliance, ²STAG MEDEV, World Health Organization, Marietta, ³President, Global Clinical Engineering Alliance, Houston, United States

Introduction: Access to innovations in health technologies (HT) and the capacity to implement locally is one of the pillars identified by the World Health Organization's (WHO) global strategy. Health innovation aims to develop and deliver new or enhanced health policies, systems, products, technologies, services, and delivery methods to improve people's health. Medical devices, oxygen sources, digital health tools, and personal protective equipment are defined as HT having potential to improve quality of life and health outcomes and improve efficacy. However, access to high quality, safe, appropriate, and affordable HT is not equitable, most severely in low resource settings (LRS). The COVID-19 pandemic heightened the need for connected and innovative HT, especially in LRS. The authors participated in two rapid WHO evidence-based innovation assessments with teams that addressed the following dimensions, resulting in two Innovation Compendia published in [2021](#) & [2022](#): (1) clinical assessment; (2) WHO specification comparison; (3) regulatory compliance assessment; (4) technology evidence assessment; (5) health technology and engineering management assessment (authors' focus area; Figure 1); and (6) intellectual property and potential of local production.

Our global professional organization [GCEA](#) contracted with [WHO's Medical Device Unit](#) for these assessments and voluntarily engaged 100 reviewers from fifty LRS countries to collect on-the-ground evaluation of products for the two Compendia.

Methods: As noted, the process for accepting HT into the Compendia is multidisciplinary, beginning with call for submission, an initial review for completeness, and then based on the material and evidence submitted, assessments are conducted followed by a synthesis of the findings, with final deliberation and selection of HT included in the Compendium. The submission and screening process eliminates technologies that do not fulfil the basic HT criteria, and the assessment method for ranking technologies and review of results are continuously being monitored and improved.

Results: For example, the 2022 Compendium presents manufacturer/developer-reported information and multidisciplinary assessment results of 15 HT, that were classified as either commercially available (7), or prototypes (8). Each technology is presented summarizing the product specifications, the synthesis of all WHO group assessments, and related WHO guidance material.

The Compendia shed light on advantages and challenges associated with implementing innovative HT in LRS and can be used by governments, NGOs and other stakeholders to support adoption decisions. They also aim to foster greater collaboration between Ministries of Health, procurement officers, donors, technology developers, manufacturers, clinicians, academics, and the public to ensure increased investment in appropriate HT and a connected move toward universal access to essential HT.

Image:

Health technology and engineering management		
	Domains	Appropriateness
	Durability	A measure of expected ability to withstand environmental and use conditions at the target location
	Ease of Use	A concept that describes how easily users can deploy a product safely and effectively
	Positive impact on clinical outcomes	A measure of the extent of expected change in clinical outcomes when a specific brand of technology is deployed in comparison with another brand of the same technology
	Affordability	It is the extent to which the intended recipients of a service can pay for it be it a public, governmental, or private service
	Engineering resources minimization	Indicator of the ratio between increased operational benefits and demands for additional operational resources such as logistics, technical management, risk prevention, spare parts or test tools, and dependency on technical Labor competency or support
	Cultural and social acceptability	A measure of suitability of a product to operate as intended in the designated locality
	Environmental conditions	The ability of specific technology to fulfil its intended use extreme conditions present in the surroundings where it is expected to be used, such as power variability, temperature, humidity, or blowing particles and sand
	Aesthetics	A feature of the external presentation and appearance of a product
	Ease of cleaning	A measure reflecting lack of difficulty and/or unique burden to accomplish proper cleaning of product
	Ease of maintenance	The intensity of lack of difficulty or required technical effort in sustaining product intended use at the level when acquired
	Infrastructure requirements	The extent of additional functional demands presented when the product introduces to the local location of use, such as space, utilities, communication, system integration, and staff technical competency
	Local access to sales support	Measure of availability of sales or marketing personnel associated with the evaluated product as resources to support the intended deployment of their product and its continuous level of deployment at patient readiness level
	Local access to technical support	Measure of availability of technical resources associated with the evaluated product at the intended deployment of their product to warrant its continuous level of deployment at patient readiness level
	Local access to training	In clinical engineering, availability at the target deployment of a product of educational program that aims to promote safe, optimal, and compliant maintenance and repair services of medical devices.
	Local access to spare parts	A measure of the immediacy and affordability of a clinical engineering service team to access the parts needed to sustain the operation of a technology at its intended safe and effectiveness levels
	Locations of use within target setting	Determination of settings of use for a product based on information provided with the submission and survey response from intended users

Figure 1: Engineering and Management Assessment Criteria

Conclusion: Global medical device sales are expected to rise to reach \$658USD billion by [2028](#). WHO's Collaboration Unit co-led the first World Health Innovation Forum (WHIF) in November 2023 with India's [AMTZ](#), now a WHO Collaborating Centre and World Trade Center site facilitating global HT innovation. Combined with WHO's assessment model, and WHIF/AMTZ efforts at commercialization, the future for bringing necessary and significant innovation in LRS where most needed is brighter.

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AMTZ: <https://www.amtz.in/>

Disclosure of Interest: None Declared

Development of AI-based fall prevention models from the perspective of artificial intelligence in healthcare: (2804) Ya-Ting Ke

ISQUA2024-ABS-2804

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Introduction: To examine the current state of fall prevention through the integration of artificial intelligence (AI) technology and the deployment of "Intelligent Fall-Prevention Lighting and Alert Systems" in healthcare settings.

Methods: This research entailed developing an AI algorithm for human skeletal image recognition and establishing a workflow for bed-exit alert software, which were then incorporated into a holistic AI-based fall prevention framework for clinical validation.

Results: The project successfully developed an AI algorithm for human skeletal image recognition and established a workflow for bed-exit warning software. The preliminary validation of the fall-prevention lighting system achieved a detection accuracy rate of up to

Conclusion: The application of AI for bed-exit alerts and patient recognition marks an innovative step in fall prevention strategies. The use of AI technology in clinical care settings is an anticipated future trend, which has the potential to improve the quality of care. However, as AI technology rapidly evolves, continuous validation and enhancement of accuracy in the complex environment of clinical care remain challenging and necessitate ongoing effort.

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Disclosure of Interest: None Declared

Use of Artificial Intelligence to Improve Radiology Service Efficiency: (1939) Yung-Cheng Wang

ISQUA2024-ABS-1939

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Introduction: In recent years, AI has fostering the flourishing development of high-tech medical practices. However, the domain of **low risk AI** in the work office is crucial yet lacks widespread AI implementation. Recognizing delays in the radiographic examination scheduling, our institution has sought to enhance the smoothness of these examinations. To achieve this, the team has embraced **human factors** engineering principles, incorporating intelligent technology to establish the "**Automatic Registration and Distribution System (ARDS)**." This system is designed to embody a patientcentric service approach, Promoting with the institution's **goals for ESG**. By leveraging intelligent information assistance in operational processes, it aims to reduce patient waiting times, enhance the efficiency and **resilience** of staff, and reinforce healthcare quality and patient safety.

Methods:

Aspect of equipment

1. **Establishment of the ARDS:** Built on the Infrastructure framework, ARDS automatically interfaces with HIS, RIS, PACS, and other systems. It assists in completing medical orders and radiological diagnostic reports, integrating software such as scheduler check-in kiosks and queuing machine. It can automatically transmit, recognize, and distribute physician reports.

2. Implementation of the Bidirectional Feedback APP for Alert and Critical values : ARDS interfaces with the automated APP to notify ordering physicians through various channels like push notifications and messages. Ordering physicians can use the APP to contact discharged patients.

Aspect of patient

1. Special Priority Mechanism for Specific Patient Groups: Establishes a prioritization mechanism for elderly individuals, women, children, and special cases. It provides clear test numbers and preparation instructions, **reducing the time patients spend waiting for examinations.**

2. Implementation of Human Factors Design in the Check-In Machine Interface: Incorporates design elements such as text color, size, font, and background colors based on human factors concepts. This provides a more comfortable experience for patients using the check-in machine for appointments, ensuring a clear understanding of scheduling and any contraindications.

Aspect of staff

ARDS extracts patient information from HIS, automatically populating the correct examination sites. This reduces the risk of data entry errors and incorrect examination positioning. It can decrease the **radiographer's mental workload and enhancing the resilience.**

Results:

1. The patient waiting time for examinations has been reduced by approximately 15 minutes.
2. The patient waiting time for reports has been decreased by approximately 37 hours.
3. Patient satisfaction is 94%.
4. 100% critical values are notified within 2 hours, and 100% alert values are notified within 24 hours.
5. Saved paper, ink, and labor costs amount to NT\$640,000, reducing carbon emissions by at least 6,322 kgCO₂.

Conclusion: Our institution pioneered the ARDS, it can help infection control, addressing space constraints, shortening time, the system establishes a prioritization mechanism for vulnerable and special cases, this aligns with promoting the **Sustainability Accounting Standards Board** in the healthcare industry, effectively reducing the **mental workload on radiographers**, optimizing operational performance, and **enhancing the resilience.** Through ARDS optimizing the selection criteria for examination items, improving clinical execution convenience and it also simultaneously reduces manual interventions to decrease the occurrence of patient safety incidents or medical dispute events, significantly shortens report times, and enhances perceptible healthcare quality. With the establishment of ARDS system modules, aiming to improve patient examination safety and efficiency, future expansion to other examination items and other medical centers is envisioned.

Disclosure of Interest: None Declared

Good healthcare simulation practices: recent works in France: (1910) Zineb Messarat-Haddouche

ISQUA2024-ABS-1910 : Z. Messarat-Haddouche ¹, M.-C. Moll ², J.-C. Granry ², C. Legris ^{1*}, L. May-Michelangeli ¹, A. Lansiaux ¹

¹Haute Autorité de santé, Saint-Denis, ²Société francophone de simulation en santé, Paris, France

Introduction: Healthcare simulation is a learning-based teaching method aimed at all healthcare professionals. It can be employed to provide training and to improve professional practices and risk management. To encourage the use of healthcare simulation, in 2012 the French National Authority for Health (HAS) published a review of existing initiatives at national and international level, with proposals for action (e.g. promotion as a method of continuing professional development), as well as a good practice guide for organisations wishing to implement and offer simulation programmes to professionals. In 2015, it provided simulation infrastructures with a guide enabling them to self-assess their practices and thus steer a voluntary approach to quality improvement. Recently, following the development of simulation infrastructures, the HAS and the French-language Healthcare Simulation Society (SoFraSimS) wanted to take stock of current practices and organisations in order to update the 2012 good practice guide.

Methods: Between 2016 and 2020, SoFraSimS conducted a trial with volunteer simulation structures to assess the relevance and exhaustiveness of the good practice criteria (teaching programmes, human resources, equipment and premises) set out in the guide. To do this, specially trained simulation experts (from the medical and paramedical professions) visited each structure and met the teams. They discussed the results of a self-assessment (score calculated on the basis of a rating grid) that teams had undertaken to carry out in the four years prior to the visit. A visit report was given to the structure and included the issues raised, any recommendations for improving practices, if applicable, and a classification of the structure based on the three types of organisation defined in the guide (type 1: single activity; type 2: activities with limited diversity; type 3: all types of activities).

Results: Ten structures were assessed during the trial (four type-3 structures, four type-2 structures and two type-1 structures). The results revealed that certain practices, which had not been fully developed in the guide, needed to be improved: with regard to simulation programmes, for example, it was found that the quality of the scenarios was particularly variable and that document management was sometimes not sufficiently developed. In terms of organisation, few resources were dedicated to simulation-based training and few structures were involved in continuing professional development. In addition, the assessment of a structure conducting solely in situ simulation highlighted the need to specifically address good practice for this type of activity (equipment installation plan, patient information, management of consumables and hygiene practices).

Conclusion: The results of this trial led to initiation of an update process for the healthcare simulation good practice guide, with the updated version due to be published in early 2024. There are also plans to update the guide for the assessment of healthcare simulation infrastructures, including the rating elements, so that, in addition to resources, the quality of programmes is taken into account. In addition, the classification of structures, seen by participants as a promotional tool, could be made compulsory for all simulation structures.

Disclosure of Interest: None Declared

Case Report: Assisted Village Project By Rizki Amalia Medika Hospital Support National Program Against Stunting Wasting: (2710) Anggrieni Wisni

ISQUA2024-ABS-2710

A. Wisni^{1,*}, J. Murdiyanto¹, S. yulianto¹ ¹Surveiyor, KARS, Yogyakarta, Indonesia

Introduction: Stunting or short children is a problem of chronic malnutrition caused by inadequate nutritional intake over a long period of time due to providing food that is not in accordance with nutritional needs. (UNICEF, 2012). The results of the Indonesian Nutritional Status (SSGI) survey show that the prevalence of stunting in Indonesia in 2022 is 21.6%, the prevalence of stunting in Yogyakarta in 2022 is 16.6%. Meanwhile, the prevalence of stunting in Kulon Progo Regency is 14.9% in 2021 and will increase by 15.8% in 2022.

To participate in reducing the stunting rate, Rizki Amalia Medika Hospital launched the Assisted Villages for Stunting and Wasting program. Based on the results of the RAM hospital coordination meeting, the Panjatan area was proposed as an activity area for the Assisted Village. This is based on the prevalence of stunting in this area which is still quite high, namely 15%. The next consideration is because the Panjatan area is not the Stunting Locus for Kulon Progo Regency in the next 2 year period. This is important for optimizing activities so that they do not overlap with other agency programs.

The Panjatan area was chosen as a target village because it is ranked 2nd in the prevalence of stunting and wasting with a figure of 16.1% in 2022, so there is a gap of 2.1% with the national target in 2024. The area was also chosen because it is an area that is easy to reach and has better cross-sectoral support

Methods: Goals

Dissemination of the results of the 2022 Rizki Amalia Medika Hospital assisted village project to support the national program against stunting wasting

Method

This research method is a Case Report

Results: One of the RAM hospital programs is the existence of an Assisted Village Project in the Panjatan Area. The spectrum of activities carried out by the hospital team are:

Toddler care

Elderly care

Toddler care is held once a month in all hamlets in the Panjatan Village area on a rotating basis. Toddler care activities include:

Weight measurement

Height measurement

Screening nutritional status

Education on nutrition and growth and development

Providing additional food

Below are information from Toddler Care Activities

Panjatan I (July) 17 All toddlers have normal nutritional status

Panjatan II (August) 19 All toddlers have normal nutritional status

Panjatan III (September) 20 Of the 20 toddlers, 2 toddlers had poor nutritional status (1 toddler below the red line and 1 toddler below the yellow line)

Panjatan IV (November) 16 All toddlers have normal nutritional status

Panjatan V (December) 14 All toddlers have normal nutritional status

For toddlers with poor nutritional status, follow-up is carried out as follows:

Accompaniment by the nutrition and midwifery team of Hospital's Assisted Villages for one week as moral support. During this period, cross-sectoral coordination was also carried out to prepare the next intervention steps.

Based on the recommendation of the Hospital Assisted Village team, the two stunted toddlers above were referred by the Community Health Center as first health facilities to the pediatrician at Rizki Amalia Medika Hospital.

Further examination and diagnosis were carried out by the dr. Banani Sidiq, M. Sc, Sp. A as pediatrician in Rizki Amalia Medika Hospital

The results after month intervention showed as the following conclusions:

Child A: Increasing body weight about 300 grams. Increasing body height about 1 cm. Increasing haemoglobin from low to normal (increase of 1.8 g/dl). Improvement in growth and development to normal (able to walk). Increasing height, haemoglobin and growth development in child A is good. However, the weight gain is less because the child cannot take full dose of milk and protein calories.

Child C: Increasing body weight about 1000 grams. Increasing body height about 1 cm. The increase in child C's weight and height is good. Haemoglobin and growth and development in the normal category.

Based on observations, it was found that the intervention result in an increase in weight, height and growth and development of stunted toddlers in hospital assisted village.

Conclusion: Rizki Amalia Medika hospital's assisted village project can detect stunting, wasting toddlers. The interventions implemented involve cross-sectoral aspects. The intervention stages are initial assistance, carrying out a referral process, establishing a diagnosis, nutritional intervention, home visits and monitoring and evaluation. The results of one month's intervention resulted in an increase in weight, height and growth and development of stunted toddlers in hospital assisted village.

References: -

Disclosure of Interest: None Declared

They Save Your Life, We Give it Back: A Quicker, Safer Track to Specialty Beds: (3401) Allison Philpot

ISQUA2024-ABS-3401

A. Philpot^{1,*} on behalf of Medical Affairs, Patient Flow, J. Lapeer¹ on behalf of Medical Affairs, Patient Flow, J. Boyce¹ on behalf of Medical Affairs, Patient Flow, S. O'Brien¹, C. Szabo²

¹Medical Affairs, ²CEO/Administration, Providence Care Centre, Kingston, Canada

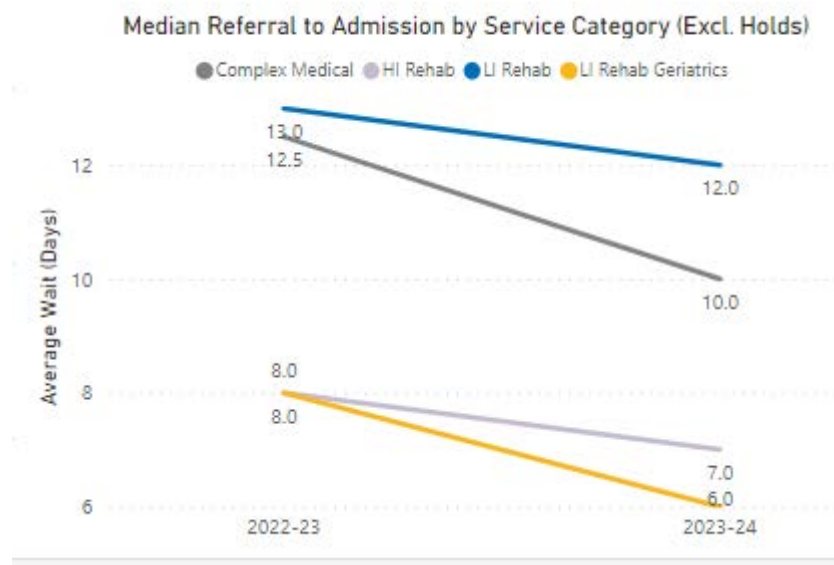
Introduction: Where acute care hospitals saves lives in urgent medical emergencies, subacute hospitals provide specialty services to help patients regain quality of life as quickly as possible. Transitions into these specialty programs rely on well managed transitions between acute and subacute organizations. This study analysed data collected at Providence Care Hospital (PCH), a subacute care specialty hospital with 334 beds, located in Kingston, Canada, and how efforts were successful in shortening the patient journey back to a life they once knew.

In June 2022, the standard referral-to-admission process took 8-18 days depending on service, leading to bottlenecks in coordination and delays for patients requiring specialty care. In response to escalating healthcare demands, an 18-month initiative sought to establish a seamless transition of patients between acute and subacute care. This initiative sought to reduce administrative and systematic barriers, improve patient flow, optimize efficiency, and increase access to subacute specialty care services in rehabilitation, complex medical and mental health services.

Methods: A multifaceted approach was taken to improve access to beds. First, a 3-tier model for patient assessment was initiated, shifting accountability to Medical Affairs and physicians. Using this model, floor occupancy became the major factor in access to referral assessment: unit occupancy >95% triggers full assessment, 85%-95% mandates direct communication between acute and subacute physicians, <85% leads to automatic admission without assessment. Second, the referral form to transfer from acute to subacute was reduced from 7 to 3 pages. Third, a “blanket repatriation agreement” was created between the acute and subacute care centres to reduce physician hesitancy to admit new patients. This agreement stipulated that the acute care centre readmit any patient who was transferred to subacute care if they were deemed inappropriate upon arrival. Finally, subacute care nursing assessors were embedded into high-referring units in acute care to identify suitable candidates for subacute care through rounds, and social workers were restructured to optimize discharges.

Results: Data were analyzed using PCH’s PowerBI statistics regarding unit occupancy, admissions, and wait times. After 18 months of implementing these changes, specialty bed occupancy increased by 13% from 82% in Q2 of 2022, to 95% in Q3 of 2023. Total admission numbers increased over 7% per quarter, meaning more patients got access to programs to improve quality of life. The patient journey into specialty services, such as Complex Medical and Rehabilitation, witnessed a notable reduction of 14.4% in wait times.

Image:



Conclusion: The success of this quality improvement initiative can be attributed to cross-hospital efforts, innovative tools, and a strategic restructuring of processes and accountability. The creation of cooperative agreements, and the reorganization of resources positively impacted patient wait times and access. This initiative stands as a testament to the effectiveness of collaborative strategies in optimizing patient journeys and indeed, changing long-term outcomes for patients following a traumatic event.

Disclosure of Interest: None Declared

Increasing the Capacity for Cervical Cancer Screening for Women on Anti-Retroviral Therapy at ALERT Comprehensive Specialized Hospital: A Quality Improvement Project: (1094) Abeba Aleka Kebede

ISQUA2024-ABS-1094

Abeba A. Kebede^{*1}, Yordanos Mengistu¹, Retina Mamo¹

¹Clinical Governance and Quality , Alert Comprehensive Specialized Hospital , Addis Ababa, Ethiopia

Introduction: Cervical cancer is potentially preventable, unlike other reproductive organ cancers. Effective screening programs lead to a significant reduction in morbidity and mortality associated with cancer, especially in high-risk women who are living with HIV/AIDS. Ethiopia's first national guidelines were released in 2015, with only 5% of women aged 30-49 having received cervical cancer screening in the previous five years. Estimated cytology-based cervical cancer screening is 1.6% in urban settings and 0.4% in rural areas (WHO household survey, 2003). In Ethiopia, cervical cancer (13.4%) is among the major causes of cancer. About two-thirds of reported annual cancer deaths occur among women. The main reasons for high cancer mortality include low awareness of cancer

signs and symptoms, inadequate screening and early detection and treatment services, and inadequate diagnostic and treatment facilities. one of the initiatives in Health Sector Transformation Plan 2 (HSTP II) is to increase the proportion of women 30-49 years of age screened for cervical cancer from 5% to 40%. Baseline data collected from ALERT Comprehensive Specialized Hospital from Tikmit to Tahsas in the year 2014 E.C. (October to December of 2021 G.C.), showed only 15% of the target population in this three-month period screened for cervical cancer screening at ART clinic in ALERT hospital. Due to the aforementioned factors, this quality improvement was started with the aim of increasing cervical cancer screening from 15% to 80% of the target in the months of Yekatit 10 to Ginbot 10, 2014 E.C. (Feb 17th, 2022 to May 18th, 2022 G.C.).

Methods: This quality improvement project was implemented in ALERT Comprehensive Specialized hospital from Yekatit 10 to Ginbot 10 2014 E.C [Feb 17th 2022 to May 18th 2022 G.C]. Model for improvement was used to increase coverage of cervical cancer screening among ART-taking clients of ALERT Comprehensive Specialized Hospital. Fishbone analysis was used to identify the root cause. Progress was followed with the run chart.

A multidisciplinary team from the ART department and the Clinical Governance and Quality Directorate was established. The team consists of general practitioners, nurses, quality officers, adherence case managers, and data encoders.

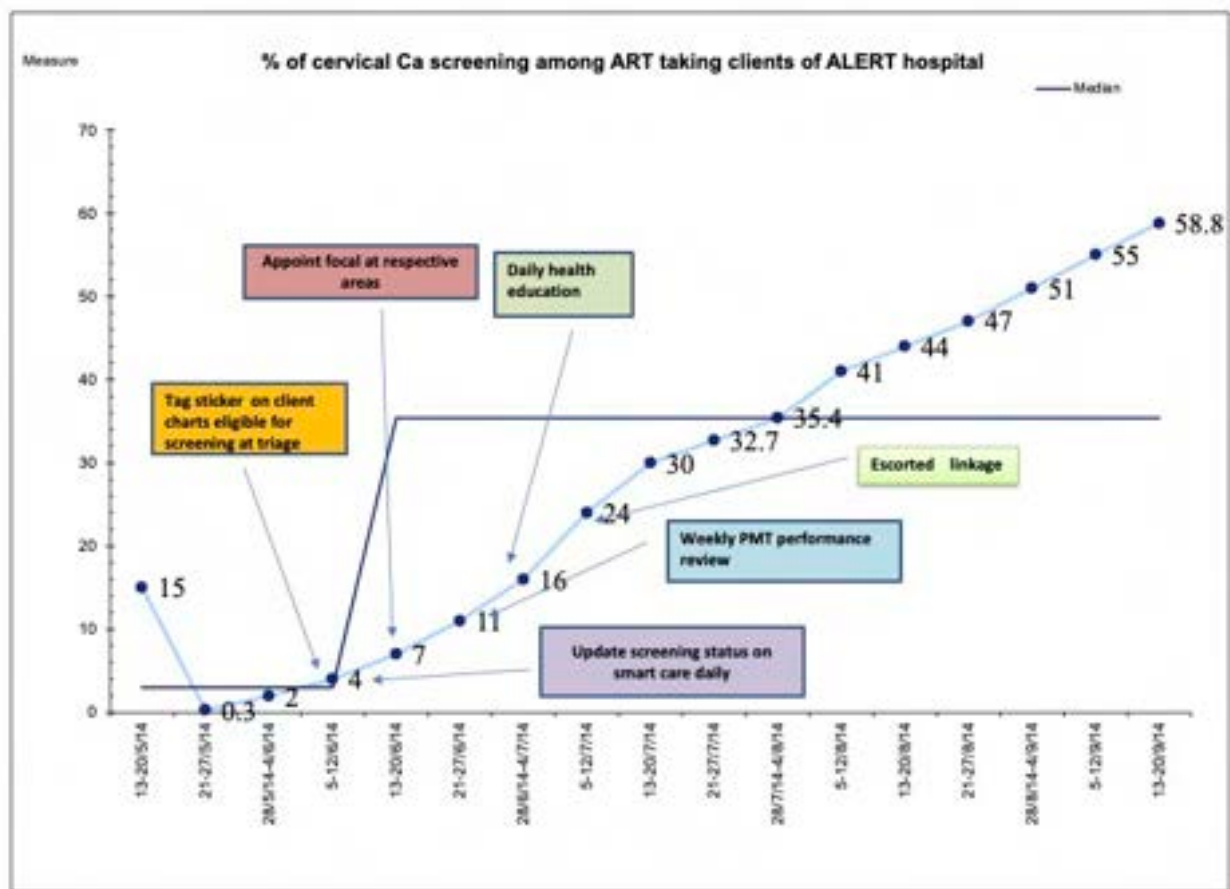
ART-taking clients of ALERT Hospital were the target population of this quality improvement project. QI members received basic QI training organized by the Regional Health Office in Addis Ababa and ICAP. The use of a fishbone diagram was made for root cause analysis. On the driver diagram, change ideas were placed. Using a focusing matrix, change ideas were ranked in order of feasibility and ease of implementation.

Interventions included attaching a tag sticker at triage for identifying eligible clients, updating client charts on smart care daily, escorting eligible clients by the Adherence case managers (ACM), and assigning cervical cancer focal at the ART clinic.

Results: This QI has increased the number of women seen at the cervical ca screening unit from 20% to 78.2%, and the number of women seen at the cervical ca screening unit from 15% to 59%.

Among 624 women who were eligible for cervical cancer screening in this quarter, 305 were VIA negative and 19 were VIA positive. 14 of the VIA-positive women were treated with thermal ablation, and 4 of them received cryotherapy. One patient was referred for LEEP. 164 pap smears were sent; among these, we have received 43 results. From 43 results 17 CIN I, 1 CIN II, and 1 CIN III were found. The rest 24 were negative. The total number of eligible women screened for cervical cancer in this quarter was 367 (58.8%). Total number of eligible women seen at cervical cancer screening unit in this quarter was 488 (78.2%).

Image:



Conclusion: The improvement of the triage system, teamwork among care providers, quality officers, data encoders, and adherence case managers, detailed health education given to clients about cervical cancer, technical and material support from our supporting organizations, and regular meetings held once a week with fruitful discussion among the team—which served as a monitoring and evaluation tool—all contributed significantly to the success of our QI project.

Disclosure of Interest: None Declared

Day 2 – Thursday 26th September

Morning

Short Orals

Can 'living' guidelines be made, and if so, will they be used? An evaluation of the Australian Living Stroke Guidelines: (2390) Peter D Hibbert

ISQUA2024-ABS-2390

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Introduction: Keeping best practice guidelines up-to-date with rapidly emerging research evidence is one of the key challenges to delivering evidence-based care. 'Living guidelines' approaches enable continual incorporation of new research, assisting healthcare professionals to apply the latest evidence to their clinical practice. However, our understanding of how living guidelines are developed, maintained and applied is limited. The Stroke Foundation in Australia was one of the first organisations to apply living guideline development methods for their Living Stroke Guidelines (LSGs)(Figure 1), presenting a unique opportunity to evaluate the process and impact of this novel approach. The objective for this project was to undertake a mixed methods evaluation of the Living Stroke Guidelines (LSGs) approach.

Methods: A mixed-methods study was conducted to understand the experience of LSGs developers and end-users. We used thematic analysis of 29 semi-structured interviews and online survey data (n=228 responses) to determine the feasibility, acceptability, and facilitators and barriers of the LSGs. An inductive thematic analysis of the transcribed interview data was undertaken using a team-based approach. Website analytics data were also reviewed to understand usage. Following individual analysis, the website analytics (quantitative), survey (quantitative and qualitative) and interview (qualitative) data were integrated according to a triangulation protocol.. Ethics approvals were obtained from Macquarie University Human Research Ethics Committee (ID: 7918).

Results: The findings were congruent between all groups and data sources. Overall, the living guidelines approach was both feasible and acceptable to developers and users. Users indicated increased trust in the LSGs (69%), likelihood of following the LSGs (66%), and frequency of access (58%), compared with previous static versions.

Convening and coordinating skills are vital to the success of living guidelines programs, which was a strength of the Stroke Foundation team. Facilitators to use included collaboration with multidisciplinary clinicians and stroke survivors or carers. Opportunities for improvement noted by users included increasing search functionality; enabling sharing of guideline sections; and development of a mobile app. Increased workload for developers, workload unpredictability, and limited information sharing, and interoperability of technological platforms were identified as barriers. There was enthusiasm for ensuring the continuation and embedding of the living guidelines approach; however, concerns about sustainability and ongoing funding were raised.

Web analytics data showed individual access by 16,517 users in 2016 rising to 53,154 users in 2020, a threefold increase. There was also a fourfold increase in unique LSG pageviews from 2016 to 2020.

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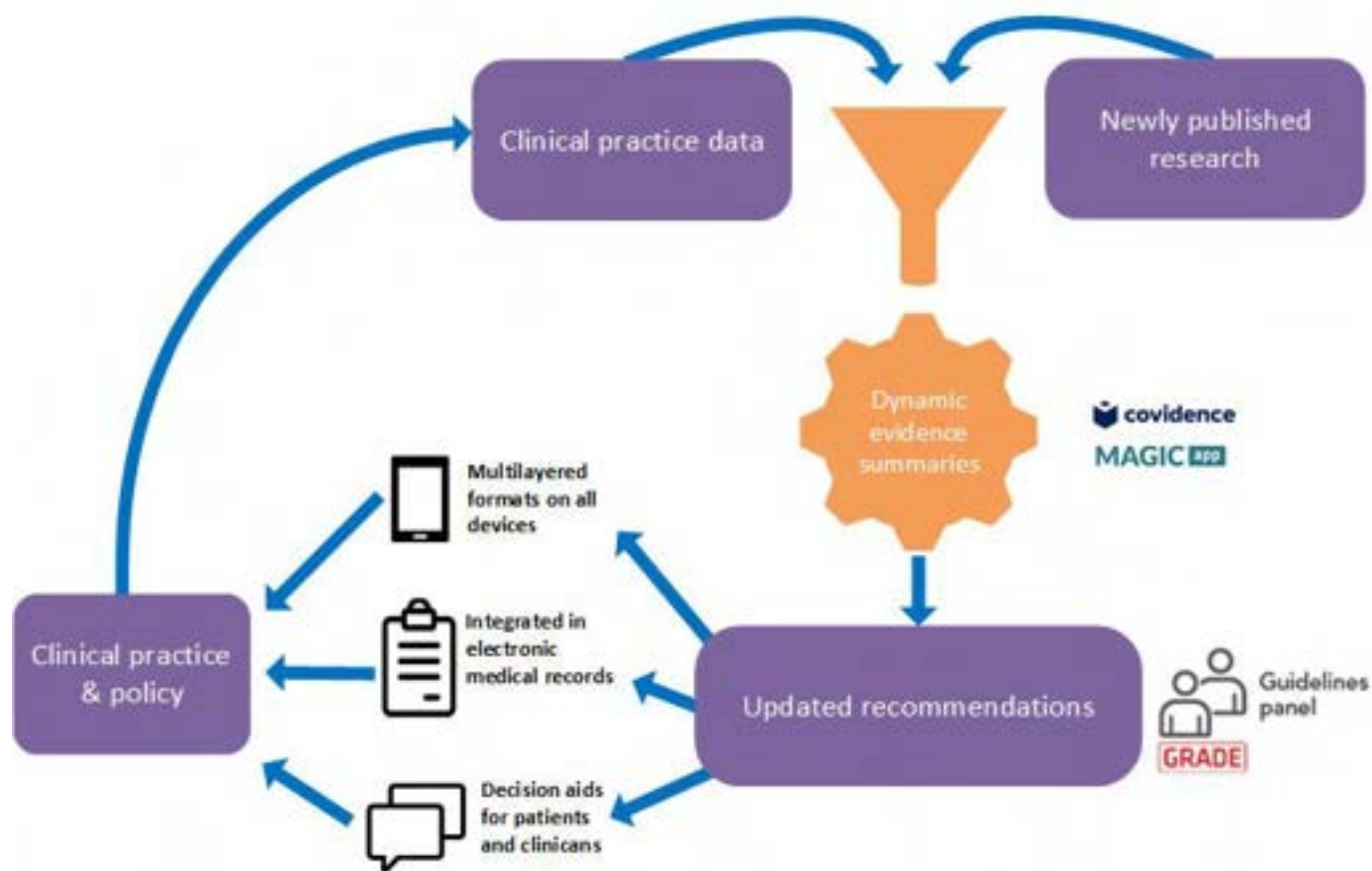


Figure 1: Overview of the Stroke Foundation's Living Stroke Guidelines approach.
Reproduced with permission from the Stroke Foundation

Conclusion: This study is one of the first evaluations of living guidelines and demonstrates that this approach to stroke guideline development is feasible and acceptable, that these approaches may add value to developers and users and may increase guideline use. Future evaluations should be embedded along with guideline implementation to capture data prospectively

Disclosure of Interest: None Declared

Development of a national mapping tool for quality and patient safety assurance in the hospital settings: the MaQPS instrument, structure- criteria- rating methodology and verification method: (2225) Angeliki Katsapi

ISQUA2024-ABS-2225

A. Katsapi^{1,*}, D. Kaitelidou², A. Karaiskou³, M. Tsana¹, F. Rizos¹, H. Karanikas⁴

¹Euro-Mediterranean Institute of Quality and Safety in Healthcare, ²Department of Nursing, National and Kapodistrian University of Athens, ³National Agency for Quality in Healthcare, Athens, ⁴Department of Computer Science and Biomedical Informatics, University of Thessaly, Lamia, Greece

Introduction: High-reliability organizations operate at safe levels and are characterized by systematic approaches that foster a robust culture of quality improvement. They focus on protocols, standardization of daily practice, use of error prevention tools and learning from experience.

WHO asserts that the 1st step in establishing strategic pillars for a national quality programme is to conduct a situational analysis, to determine the current national state of quality, including priorities, challenges, capacity, governance, and resources.

Although there are international standards, sustaining well-controlled environments, there is lack of practically- driven methods to determine the minimum criteria for quality assurance and patient safety.

To bridge the gap, a set of requirements is developed to identify the current state of quality in hospital care and the applied mechanisms, to identify national priorities and strategies of a national quality plan for healthcare.

Methods: Mapping for Quality and Patient Safety- MaQPS, was developed as part of a holistic framework in 2 stages:

- review the different models currently used worldwide and agree on a comprehensive framework to assess the level of compliance of hospitals with quality and safety standards in a unified approach
- develop a set of criteria and methods for compliance assessment based on international references and European regulatory requirements.

The structure is based on EN 15224- Healthcare Quality Management Systems and is a systematized analysis of the standard requirements into basic compliance tasks with references on valid guidelines, basic quality and safety criteria. It reflects key functions and processes of the hospital in terms of the application of basic legal and regulative requirements and the basic international safety and quality assurance standards in the full range of main and supportive services of the facility.

Results: The tool is focused on key areas: Organization, Governance, Patient Safety, Quality assurance, Improvement, Workforce, Resources Management, Emergency Management, KPIs.

MaQPS differs from other tools as it incorporates patient safety and clinical aspects into a quality assurance assessment framework through a systematic approach that provides a practical and traceable pathway to identify deficiencies and benchmark among healthcare providers.

The developed tool is also includes specifications for the quality measurement system to ensure traceable metrics according to the European Statistics Code of Practice.

Conclusion: Mapping the existing compliance status in an objective and structured way is the 1st step in developing plans and strategies to improve quality and safety in health systems.

MaQPS will evolve as being part of a holistic framework which is under research.

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Disclosure of Interest: None Declared

Accreditation of Healthcare Facilities in France: A Lever for Developing Good Digital Practices and Preventing Cyber Risks: (2920) Anne Chevrier

ISQUA2024-ABS-2920

A. Lansiaux¹, A. Chevrier^{2,*}, I. Dorléans², S. Ollivier², P. Méchain², L. Kéribin²

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Introduction: The swift evolution of digital technology in healthcare, coupled with the increasing threat of cyberattacks targeting hospitals, has led to the development of national action plans. These plans aim to promote cybersecurity, digital development, and best practices, involving management, healthcare professionals, and patients.

To leverage these plans effectively, the French High Health Authority (HAS), the Digital Health Agency, and the Digital Health Delegation have collectively worked to strengthen digital requirements in the accreditation for the quality and safety of care in French hospitals.

HAS has established criteria to assess digital practices and cybersecurity within hospitals, while also concurrently focusing on improving the digital proficiency of surveyors tasked with conducting these evaluations during accreditation visits.

Methods: - The digital criteria were co-constructed with national bodies specialized in digital health and experts and underwent consultations with stakeholders, including public and private hospital federations and patient representatives.

- The 7 additional digital criteria aim to evaluate and promote digital transformation and cybersecurity plans among hospital management. They also seek to raise awareness among healthcare professionals about the risks of cyberattacks and proper digital tool usage.

- Test visits confirmed the understanding of the criteria and validated the methodology.

- In the summer of 2023, HAS orchestrated a comprehensive recruitment campaign for 175 digital surveyors, referred to as “EVN”, possessing specific digital competencies. Webinars featuring testimonies from institutions that have encountered cyberattacks were used to raise awareness among establishments and healthcare professionals.

- The selection of EVNs was conducted in partnership with national bodies specializing in digital health.

- Starting from September 2023, these EVNs underwent mixed-format training, including remote and in-person sessions. Team leaders received enhanced training for mentoring EVNs. All surveyors completed a module on digital challenges and the new criteria.

- A post-experience review after 140 visits integrating the digital criteria (regardless of establishment size), involving surveyors and HAS project managers, will identify improvement actions to be undertaken.

Results: By early 2024, less than a year after the project's launch, 100% of visits include a digital surveyor and a team trained in digital issues.

This was made possible thanks to:

- Determination of the following seven criteria :

Establishment's mastery of digital security risk
Secure identification of professionals in the information system
Use of the information system for patient record access
Security of medical information communication
Patient's access to their record
Patient information
Adherence to good patient identification practices

- Recruitment and training of 175 digital surveyors

- Training of 100% of the 160 coordinators and 640 other surveyors.

The first results of digital investigations will be presented in mid-2024.

Conclusion: Digital technology has become an essential element in the functioning of the healthcare system, playing a decisive role in the quality of care.

The successful completion of this project was possible thanks to the commitment of stakeholders, healthcare facilities, professionals, and the expertise of HAS, recognized by ISQUA in their 2022 accreditation report on the organization and training program of experts.

Disclosure of Interest: None Declared

The best results for Virtual Surveys: (1930) Fabio Leite Gastal

ISQUA2024-ABS-1930

F. L. Gastal^{1 2 3,*}, G. Lolato⁴, P. Goes Cruz⁵, A. Ruggiero⁶

¹President Board, ONA, Sao Paulo, ²University, Unimed, Belo Horizonte, ³Insurance Co., Unimed, ⁴COO, ⁵CEO, ⁶CFO, ONA, Sao Paulo, Brazil

Introduction: The National Accreditation Organization (ONA) is responsible for developing and managing Brazilian health quality and safety standards. ONA develop quality and safety standards for the accreditation of organizations providing healthcare services in all Brazil. It is also made up of a set of structures, processes, and institutions whose purpose is to make the accreditation process viable in Brazil.

Objective: Demonstrate the best results for Virtual Surveys.

Methods: The methodology of Virtual Survey has some objectives how: elaboration for accomplishment of virtual surveys on Organization of Health Care model, establish rules and guidelines for performing virtual surveys on national methodology and project to be presented and approved by ONA's Board of Directors. ONA organize a project and involve the direct participation of all representatives of the National Brazilian Accreditation System by ONA (Certified Accreditation institutions (IACs), professionals, members of the Board and invited specialists), define technical ONLINE Squads that mobilized and prepared the technical materials, a focus discussion groups and consensus and prepared and submitted draft guidelines to the Risk Analysis Committee and ONA's Board for final deliberations. Some important actions were discussed and implemented, as follow: Virtual survey model development based on international GUIDELINES (ISQua & IAF/ISO), periodic discussions on the suggested survey model, virtual survey method validation, test the proposed model, ONA Integrare System parameterization for the proposed changes in the new model, publication of the guideline with the rules of the virtual survey model, development of a course to prepare the team and monitor the results. The workflow to implement the project has passed through some steps. These steps were necessary to put in practice a virtual survey, as follow: Risk analysis - Ona's Certified Accreditation institutions (IACs) should conduct a risk analysis based on the risk matrix to determine if the healthcare organization was in a favourable position to receive the virtual survey team; prepare the healthcare organization when the surveyor organization should contact the client to inform about the virtual survey regarding the documentation that must be presented during the virtual meetings; organize the agenda with the healthcare organization; prepare the Program to survey; Separate the documents required; Perform the survey; perform the visit report and approve the visit report with Certification Committee by ONA. ONA will provide electronic tools for virtual survey: registration of all documentation and opinion of the surveyor's team.

Results: The marks of the project are: Virtual Survey Proposal Approval by Board of Directors, virtual Survey model test and concluded, system parameterization for the proposed changes in the new model and preparation of involved personnel. Since the implementation in 2020, ONA has 2.342 Virtual Surveys and 201 Hybrid Surveys. The impact of the result, there was a reduction in the financial impact to the institutions that compose SBA/ONA (Brazilian National Accreditation System by ONA). The cost of virtual survey decreased considerably when analysed in comparison to the indirect costs related to transportation/travelling, accommodation, food, and ONA fee for on-site assessment.

Conclusion: This initiative is very relevant in the Brazilian context with a very large territory and very expensive logistics costs for the evaluation on-site process. The indirect cost is the strongest barrier for the health services in the small communities and the poorer states. This new external virtual survey methodology makes it possible to extend the capacity to expand the accreditation services for new health services clients and populations.

References: 1) www.isqua.org

2) www.ona.org.br

Disclosure of Interest: None Declared

Beyond Standards: Exploring the Impact of Hospital Accreditation on Patients' Experience: (1368)
Mahi Mahmoud Al-Tehewy

ISQUA2024-ABS-1368

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Introduction: Patient experience includes the range of interactions that patient has with the health care system. It is believed that accreditation positively influence quality of care, however, little is known about how it affects patient's experience. **Objective:** to measure and compare patient's experience in an accredited and non-accredited hospital and to identify possible personal factors that may affect patients' experience.

Methods: **Methods:** a comparative cross-sectional study was done among patients admitted at two Ain Shams University hospitals, one accredited and one non-accredited hospital. A random sample of patients were interviewed using HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey which include 18 substantive items that encompass critical aspects of the hospital experience (communication with doctors, communication with nurses, responsiveness of hospital staff, cleanliness of the hospital environment, quietness of the hospital environment, pain management, communication about medicines, discharge information, overall rating of hospital, and recommendation of hospital to others).

Results: **Results:** the sample included 206 patients, divided equally among the two hospitals, with mean age of 41.9±15.4 years and 61.2 % of them were males. The percentages of positive response in all patient experience dimensions were significantly higher in accredited than non-accredited hospital ($p>0.05$) except in dimension of communication about medicines. Linear regression analysis revealed that in addition to accreditation, gender, education, and type of job significantly affect the total score of patient experience, ($p>0.05$).

Conclusion: **Conclusions:** this study provides initial evidence of the positive impact of hospital accreditation process on improving patient experience. The study highlighted communication of information to patient as an area that need improvement.

Disclosure of Interest: None Declared

Quality improvement (QI) as an essential tool for disaster preparedness: How New Orleans (NOLA) assures safety for persons living with HIV (PLWH) in its healthcare system as hurricanes surge: (3414) Bruce D Agins

ISQUA2024-ABS-3414

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Introduction: As climate change advances, healthcare systems must adapt to assure continuity of care for people with chronic conditions and benefit from application of quality improvement (QI) methods to prepare and respond effectively for climate disasters. New Orleans (NOLA) has faced repeated hurricanes which pose a substantial threat to access to healthcare services and especially medications for people living with HIV (PLWH). The NOLA HIV/AIDS Program convened a QI Collaborative in partnership with UCSF through which systems thinking, particularly through process mapping and the generation of block and hierarchical task analysis diagrams, led to redesign of care processes and innovations through the phases of preparation, response during hurricanes and post-hurricane management to ensure safe and coordinated access to health care for PLWH. Policymakers participated with providers and community members to identify areas resulting in plans to improve jurisdiction-wide health emergency response systems.

Methods: Data were collected from 10 provider and 2 policymaking agencies. Process maps and changes were presented at QI Collaborative learning sessions, following which the agency narratives and reports underwent coding. Interventions were categorized into thematic domains. Community members participated on provider teams and also participated as a formal advisory council team.

Results: Domains of interventions and changes were grouped into 4 categories: 1) before disaster; 2) disaster warning; 3) during disaster and 4) after disaster. Strategies identified in the preparatory phase included patient preparation plans including “stay kits” and “go kits” depending on decisions to evacuate during the disaster, strategies for continued medication supply, language appropriate resources, communication channels, transportation service plans and securing access to medical history. Similar changes were developed for the period of disaster warning with emphasis on emergency communication channels, especially social media. During disasters, staff identified processes for communication with patients and tracking for assurances of safety and medication supply, whereas after disasters, emphasis on patient well-being, mental health and security were included in communication strategies, along with tracking of clinical continuity of care and viral load suppression. Jurisdictional strategies included streamlining of communication channels on social media, identification of safety centers, strengthening cross-state communication systems to allow uninterrupted medication supply and development of resources and information channels for patients with limited access to internet and poor digital literacy. Additionally, coordination with multiple state agencies was strengthened through panel discussions and interactions between their government agency staff with the provider and consumer communities. Specific changes related to Hurricane Ida (August 2021) are described in the Table below.

Conclusion: QI methods, particularly systems thinking, offers an important strategy for health systems to ensure safety and quality of care for people with chronic conditions in the settings of climate disasters. Collaborative participation of policymakers, providers and community members in these QI activities. These processes of QI initiatives can be applied to emergency response processes in healthcare systems to address preparedness for the multiple types of disasters that will inevitably ensue with the progression of global warming and climate change.

Disclosure of Interest: None Declared

Pioneering accreditation standards for low-carbon, sustainable and resilient hospitals: (1637) **Sylvia Basterrechea**

ISQUA2024-ABS-1637

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Introduction: The healthcare sector is a major contributor to climate change, which causes harm to populations both locally and globally. Hospitals must act to implement practices which will decrease their carbon and environmental footprint, increase their resilience in the face of disruptive climate events and increase sustainability for their operations, people (patient population, communities and staff), environment and planet.

Addressing the lack of dedicated frameworks and standards is a pressing need for the healthcare sector to be able to: 1) address climate change as part of its operations, including quality and safety of care; 2) assess its performance and progress towards sustainable, low-carbon and resilient healthcare delivery; and 3) define strategies and priorities.

This session will present the journey of Joint Commission International (JCI) and of the International Hospital Federation's Geneva Sustainability Centre (GSC) to develop and deliver the first set of international environmental sustainability standards for hospitals.

Methods: Global healthcare organizations are witnessing a growing demand for more support and guidance to implement processes for low-carbon, resilient and sustainable healthcare. JCI and the GSC collaborated in 2023 to develop accreditation standards for environmental sustainability according to specific criteria.

The process included consultations with a technical advisory panel and a public review. The full process, from development of the content to publication of the accreditation standards, lasted from May 2023 to July 2024.

Results: The field review provided relevant data regarding attitude towards the proposed standards and the perceived readiness to implement them. It also provided an indication of the current practices being implemented – or not – in relation to the standards globally. This demonstrates the need for environmental sustainability-related standards to be included in accreditation processes and related efforts to push this agenda forward.

The development and review processes allowed to ensure that all criteria were met to provide the first set of five international environmental sustainability standards for hospitals. The five areas covered by the standards are:

1. Governance, tracking and reporting
2. Employee engagement and empowerment
3. Use of environmental resources, green operations and processes
4. Procurement and supply chain
5. Infrastructure and service resilience

This sets the foundations for a solid framework of parameters that would influence principles and processes for licensing, accreditation and certification globally, and ensure a large-scale impact for the sector.

Conclusion: Climate change must be addressed at all levels of the healthcare delivery. The standards developed through this process offer a robust entry point for all hospitals to get started and improve actions for sustainability. It demonstrates that organizations can increase the quality of their services while complying with international accreditation standards and, in consequence, improve health outcomes of the populations they serve.

Developments include a licensing process to make those standards available for other accrediting organizations outside of the United States to use as part of their own accreditation processes, as well as a certification programme for hospitals willing to demonstrate extended efforts for sustainability.

This also provides an example of successful collaboration to contribute to fostering the transition towards low-carbon, resilient and sustainable healthcare.

Disclosure of Interest: None Declared

Desflurane-Sparing Anesthesia Practice: Tackling Climate Change from the Operating Theatre: (1733) Annemarie Chrysantia Melati

ISQUA2024-ABS-1733

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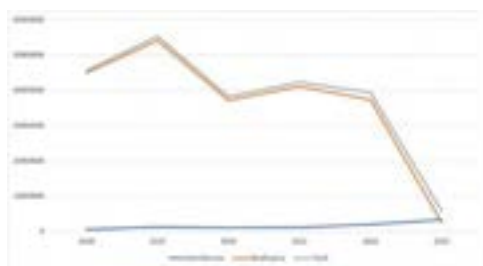
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Introduction: World Health Organization (WHO) emphasized that climate change was an important issue in the 21st century. Closed monitoring on the carbon footprint is essential to determine measures to reduce gas emission, including in anesthesia practice. In modern anesthesia, the use of anesthetic gases, such as sevoflurane, desflurane, isoflurane and nitrous oxide, is relatively common in daily practice. Anesthetic gas undergoes minimal changes in vivo and more than 95% of these gasses are released back to the troposphere. Sevoflurane and desflurane might be found in our troposphere for 1.1 and 14 years, respectively. Hence, anesthetic gasses play an important target for reducing medical carbon emissions. We conducted a quality improvement study to assess and evaluate the impact of sustainability intervention, which was a desflurane-sparing practice, on the environmental and financial cost in our hospital.

Methods: This was a quality improvement study promoting an environmental sustainability in Premier Bintaro Hospital. On January 2023 we gradually removed desflurane from the operating theatre and on April 2023 there was no desflurane used in the operating theatre. We did a series of education for our anesthesiologists and anesthesia nurses as well as other staffs in the operating theatre. Retrospectively, usage (in bottles) and expenditure for sevoflurane and desflurane from January 2018 to December 2023 were obtained from the Department of Pharmacy. Year 2018 and 2019 represented the data before COVID-19 pandemic. Global warming potential and CO₂equivalent (CO₂e) were utilized to measure the environmental impact of these agents. To measure the CO₂e of anesthetic gas then we utilized this calculation: mass (kg) times with its GWP. The value of GWP100 of sevoflurane was 130 and desflurane was 2450. One bottle of desflurane (240 ml) had CO₂e of 886 kg and one bottle of sevoflurane (250 ml) had CO₂e of 49 kg.

Results: This study generated that the total number of bottles of sevoflurane and desflurane purchased between January 2018 and December 2023 increased by 12.43% from 62,830 bottles to 70,639 bottles. There was a slight decrease in year 2020 which was most likely contributed by the COVID-19 pandemic. Nevertheless, the number of desflurane bottles decreased significantly by 94.15% from 50,830 bottles to 2,972 bottles in year 2023. Following the project initiation to reduce the use of desflurane, total carbon emission in year 2023 from anesthetic gasses decreased significantly by 86.96% from year 2018. In year 2018, desflurane made up 98.71% of the annual CO₂e which was steady until year 2022. However, in year 2023 desflurane only contributed to 44.26% of the annual CO₂e. Combined sevoflurane and desflurane costs decreased by 22.8% from year 2018 to year 2023. Our hospital successfully saved around \$5000 in year 2023 from the desflurane-sparing practice.

Image:



Conclusion: There was a substantial reduction in carbon emissions following the implementation of desflurane-sparing anesthesia practice in our hospital. Additionally, there was reduction in money spent for the anesthetic gasses as well. This finding emphasized that desflurane-sparing practice may be one answer to tackle climate change crisis in the operating theatre.

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Disclosure of Interest: None Declared

An evaluation on the effect of climate change on health: The case study of quality employees: (3217) Elif Özyurt

ISQUA2024-ABS-3217

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Introduction: In the 21st century, climate change is one of the biggest problems in many fields, including health. It is predicted that in the next 30 years, climate change due to global warming will increase its severity on public health. It is expected that disasters such as heat fluctuations, floods, droughts, fires will increase the incidence and prevalence of many diseases, especially infections, chronic diseases such as cardiovascular and pulmonary diseases, and psychological diseases. It is clear that all these unfavourable situations may cause disruptions in the supply chain, medical treatment, appointment times, care services and every aspect of the healthcare system, including the psychological health of healthcare professionals. It is also possible that the health system will become more fragile as climate change increases health inequalities in the society and risks on vulnerable groups in addition to negatively affecting the health system. Quality and Accreditation studies have a fundamental role in preparing for risks and strengthening the health system. In this study, it is aimed to measure the awareness of health professionals involved in accreditation and quality studies in line

with being prepared for situations that may develop as a result of the impact of climate change on health and health services and strengthening health systems.

Methods: Semi-structured interviews were conducted between December 2023 and January 2024 with 10 health professionals working as TÜSKA Standards of Accreditation in Health (SAS) auditors and quality workers in a health institution. As a Data Collection Tool, the "Awareness of Quality Employees Regarding Climate Change in Health Services" Form, which was prepared by the researchers by taking the opinion of 2 researchers who are experts in the field, was applied to the participants after the pilot application. After the pilot applications, the interview forms were made suitable for the application according to all these results. Content analysis technique was used to analyse the data.

Results: 8 (80%) of the participants, consisting of TÜSKA SAS auditor (2), quality director (1) and quality employee (7), have Master's degree and 2 (20%) have PhD degree. The data were analysed in 8 themes and these themes were divided into categories and their contents. In this study conducted to determine the perception levels of quality and accreditation unit employees regarding quality and accreditation studies in line with being prepared for situations that may develop as a result of the impact of climate change on health and health services and strengthening health systems; As can be seen in Table 1, it was seen that the majority of the participants had a high level of awareness in the interviews related to the themes of the causes of climate change, problems that may occur, where health institutions are in relation to climate change, willingness to take part in efforts to combat climate change, what to do within the scope of quality and accreditation studies on the subject, and how the results of climate change will affect health services.

Image:

Table 1: Awareness Analysis of Quality and Accreditation Employees with Climate Change

Theme	Sub Theme Contents		Number (n)	Rate (%)
1. What do you think are the causes of climate change?		- Excessive urbanisation - Widespread use of automobiles - Fossil fuel use	9	%80
		- Industrial life - Decrease in agricultural land	1	%10
		Increases in the production and use of cosmetic products	1	%10
		- Waste of resources - Non-conformities in waste segregation	10	%100
2. What do you think are the problems that may occur due to climate change?		- Seasonal changes - Natural disasters - Disruption of the ecological system - Reduced availability of safe, quality and healthier food and water	10	%100
		- Disruption of the supply chain - Impact on agriculture	2	%20
3. What is the position of health organisations in relation to climate change?		- Increasing health literacy on climate change - Preparing health systems and clinicians to tackle climate change - Carrying out prevention activities for the causes of climate change - To plan both regulatory and preventive activities in preventive health services in public health practices - Increasing zero carbon footprint projects	6	%60
4. What are the efforts to combat climate change? Do you think they are sufficient?	Yes			
	No	- State policies are being organised, but we are still at the beginning of the road. - Global measures need to be taken.	5	%50
5. Would you like to take part in efforts to combat climate change?	Yes	- To take part in activities to prevent climate change and trainings to raise awareness. - To take part in health services activities to protect public health.	8	%80
	No			
6. Are there any arrangements in the health institution you work for combating climate change and raising awareness?	Yes	- Measures are taken for the proper sorting and disposal of waste. - Environmentally friendly practices are organised to prevent waste in resource use.	6	%60
	No			
7. What kind of standards and improvements can be made in quality and accreditation audits in health services on climate change issues?		- Establishment of a commission for combating climate change - Developing quality and accreditation standards for combating climate change and raising awareness - Further expansion of climate change related standards	10	%100
		- Organising standards to reduce unnecessary diagnosis, treatment, rehabilitation and examination procedures - Low carbon emission certificates may be required for electronic devices. - Considering regulations to reduce the use of electricity, water and natural gas, which are used in excessive amounts in hospitals, as a standard	6	%60
		- Making solar energy panels compulsory in hospitals - Creating areas for collecting rainwater and meeting some of the water needs from here - Developing standards to reduce carbon footprint	4	%40
8. How will the consequences of climate change affect health services?		- It will increase the workload of health systems. - It will increase the demand and applications for health services - It will cause negative problems for the procurement processes of health services.	9	%90
		- There will be a significant increase in health expenditures. - They will cause the emergence of new diseases. - It will cause the emergence of new pandemics. - It will increase inequalities in receiving health services.	6	%60
		- Epidemics due to water scarcity will increase. - Hereditary diseases will emerge. - Developmental problems of new generations will increase due to food shortages.	2	%20

Conclusion: In order to be prepared for the health problems caused by climate change and to take action quickly, effectively and efficiently, it is very important to carry out improvement studies on a global scale. In this direction, within the scope of quality and accreditation studies, it would be an effective step to develop new dimensions and standards to be prepared for the adverse health conditions caused by climate change. At the same time, the importance of organising training programmes to increase the awareness of the society, supporting health professionals with training in terms of being prepared for the problems arising from climate change and new diseases, and developing quality and accreditation standards that encourage health institutions to act proactively in social contribution activities for climate change should be prioritised on every platform.

Disclosure of Interest: None Declared

Exploring the Implementation of Sustainable Operational Strategies in Healthcare Institutions: (2531) Syuan-Fang Jian

ISQUA2024-ABS-2531

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Introduction: The healthcare industry exhibits exceptionally high energy consumption and carbon emissions. Internationally, initiatives for achieving net-zero carbon emissions have been launched. Currently, Taiwan's policies and regulations regarding net-zero carbon emissions do not specifically include the healthcare industry. Taipei Medical University Hospital has proactively initiated the institutionalization of sustainable operational strategies.

Methods: We adopted an organizational institutionalization approach by first establishing a Center for Sustainable Development, simultaneously founding a Sustainable Development Committee. We allocated resources to train a total of 33 multi-discipline sustainability planners. These individuals serve as seeds for sustainability, and in the future, they will leverage their influence within their respective professional domains to become the navigators of sustainable operations within the hospital.

In response to the international call for net-zero sustainability, we became one of the first hospitals in Taiwan to sign the Healthcare Sustainability Initiative.

Before the establishment of the center in 2022, we have actively participated in sustainability awards, winning a total of 3 sustainability action awards and individual performance awards in 2022, along with an outstanding youth award. In 2023, we received a total of 7 awards, ranking as the top hospital in Taiwan. Our individual performance award spans across all three ESG dimensions and SDGs, establishing our hospital's medical sustainability as a topic of societal concern.

Subsequently, we renamed the center as the Sustainability Development Office, hiring dedicated staff while retaining part-time personnel to facilitate cross-departmental communication.

As part of establishing the foundational infrastructure (initiated the issuance of sustainability reports and conducted greenhouse gas inventories). Moving forward, we plan to conduct phased interviews with sustainability planners to guide partners in formulating departmental sustainable operational strategies. We value professional proposals and judgments, respecting their expertise, and aim to develop highly feasible healthcare sustainability initiatives.

Results: In 2022, we received 4 sustainability awards.

In 2023, we received 7 sustainability awards, ranking as the top hospital in Taiwan.

In March 2023, Center for Sustainable Development, Sustainability Development Committee, and Healthcare Sustainability Advocacy were established.

In May 2023, the greenhouse gas emissions inventory was initiated.

In August 2023, the Sustainability Development Office was established, and 33 sustainability planners obtained certification.

In October 2023, the recruitment of full-time staff began.

In December 2023, the 2022 Sustainability Report was issued, and internal audits of greenhouse gas emissions were completed.

In January 2024, internal audits of greenhouse gas emissions were completed, and the 2023 Sustainability Report was initiated.

In February 2024, external audits of greenhouse gas emissions were conducted, and the evaluation of proposed sustainability strategies by some sustainability planners was initiated. Enrollment in the 2024 Sustainability Awards was also completed.

Image:



Conclusion: Our strategy begins with people, prioritizing partnerships before pursuing infrastructure, fostering societal engagement, and implementing balanced, sustainable healthcare services. This strategy contribute to the broader understanding of sustainable practices in healthcare management, offering valuable implications for the enhancement of operational efficiency and long-term viability in medical institutions.

Disclosure of Interest: None Declared

Digital Health Stakeholders' Views: Using Electronic Medical Records in Improving Communication between Hospitalised Patients and Health Professionals across Transitions of Care: (2038) Guncag Ozavci

ISQUA2024-ABS-2038

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Introduction: Electronic medical records (EMRs) implemented in hospitals contain all the information about managing patient care. Little is known about how health professionals use EMRs to facilitate communication with patients, especially those with complex care needs and polypharmacy. This project aimed to understand the complexity of individual and organisational influences on communication between patients, families, and health professionals in using EMRs, from the perspectives of digital health stakeholders. It also aimed to address challenges to achieve better models of health care services, by investigating current and new engagement strategies and insights to enhance communication with patients and families in using the EMRs.

Methods: A qualitative exploratory design included focus groups or interviews with key stakeholders working in digital health across three states in Australia. Transcripts were analysed inductively by using reflexive thematic analysis.

Results: A total of 21 stakeholders across sixteen Australian organisations participated in focus groups or interviews. Stakeholders included: chief allied health officer (n=1), chief nursing information officers (n=4), chief clinical information officers (n=3), chief medical information officers (n=2), deputy director of medical services (n=1), director of allied health (n=1), lead of electronic decision support (n=1), manager of nursing policy practice and clinical standards (n=1), lead of digital health portfolio (n=1), digital patient experience officers (n=2), digital health partner for nursing services (n=1), nurse unit manager (n=1), emergency medicine consultant (n=1), health service manager (n=1). Four main themes were generated: 1) Clinician-centric focus of EMR system, 2) Requirement for patient-centric design patient portals, 3) Benefits of EMRs on the communication across transitions of care, 4) Strategies to improve communication with patients via EMR. Use of EMRs by health professionals in communication appeared limited to mimicking the paper-based system, with missed opportunities for effective use of the EMRs, in particular, during hospital discharge when explanations were given to patients with multiple chronic conditions. . EMRs facilitated communication processes in admission and at discharge compared to other time periods inpatient settings and they were helpful in outpatient settings to print out results to patients. Stakeholders suggested patient-centric portal design in supporting patient education and autonomy across care transitions; however, there was lack of motivation in teaching patients how to access the portals by health professionals, in addition to inconsistent portal design and adoption across Australian hospitals.

Conclusion: EMRs were mainly used to enhance health professionals' practice rather than communicating with patients and their families. Although the benefits of EMRs on communication at care transitions were emphasised, missed opportunities still exist to educate patients during their hospital stays. Health professionals need teaching resources and ongoing training to improve communicating with patients and families when using EMRs. Patient portals need to be designed to ensure required information is provided to patients in a way that can be easily accessible and understandable by patients. Design of change management strategies are needed in hospitals, which incorporate the patient and family voice, to improve communication with patients and families via EMRs.

Conflict of Interest*: This work was funded by an Australian Research Council Discovery Project Grant (DP220100884). The funding body has had no influence on any aspect of this work.

Disclosure of Interest: None Declared

Using the cohort effect to boost improvement projects in ovarian cancer: (2213) Helen Crisp

ISQUA2024-ABS-2213

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Introduction: Ovarian Cancer Action, a UK charity, funded projects to improve care and subsequent survival of women with ovarian cancer. A 2021 UK national audit of ovarian cancer services showed unwarranted variation in care, diagnosis, treatment and survival rates for women. The aim of the programme was to address the inequality that women with ovarian cancer face from diagnosis to surgery and treatment, using evidence and sharing best practice to improve services. Applications were invited for up to 8 funding awards of £100,000 (\$125,500 USD). 7 projects were funded to help to reduce inequalities. The programme provided learning and exchange sessions to enhance QI skills and share best practice between projects.

Methods: After scoping and design, the programme put out a call for proposals, publicised through professional cancer networks. Applications were assessed by senior clinicians and a patient advisory group of ovarian cancer survivors. The programme wanted to enhance the project grants by creating a 'cohort effect', supporting learning between teams. Just making grants and leaving busy clinical teams to 'get on with it' could lead to slipped timescales, lack of motivation and projects failing through lack of support. The Programme Manager held individual catch up meetings with each project every 4 months (more frequently if needed) advising on challenges such as project staff recruitment and engaging with patient groups. This kept projects engaged and expedited practical solutions.

In addition, five learning events were planned to establish and support a cohort effect over the implementation year:

- Online virtual launch event
- Mid-way learning exchange event

- Online seminar on qualitative research methods to support project evaluation
- Online webinar on producing a comprehensive improvement report
- End of programme learning exchange and celebration.

Projects shared progress and learned from each other. For 3 projects doing prehabilitation, the programme organised extra meetings to facilitate in-depth sharing of methods and materials. There was an agreed combined data set, enabling more robust analysis of a larger sample.

Projects used QI methods to implement their service changes to reduce inequalities linked to age, socio-economic status, ethnicity and geography of service provision. Developing prehabilitation helped to get older women fitter for surgery, introducing a one-stop clinic rather than 4 or 5 separate hospital appointments was less strain on patients, developing information materials on genetic testing with language, images and concepts ensured these were suitable to different ethnic groups.

Results: Proactive programme management facilitated practical learning in leadership and change management. 6 of 7 projects included patient involvement as a meaningful component. Projects had patient representation in the steering group, to provide feedback on materials and engaging patients. 5 of 7 projects addressed age inequalities, improving active treatment and therefore better clinical outcomes for older women. Clinical data comparing cohorts of women pre- and post project show average age of patients treated increased, as more older women got active treatment. Early data show decreased hospital length of stay post-surgery when prehabilitation completed. Rates of acceptance for genetic testing increased across all ethnicities with tailored information materials. Projects developed patient information materials, policies, procedures and data templates, disseminated at a national UK cancer conference. Materials are available online for teams doing similar work. QI skills training encouraged teams to do further work in service improvement.

Conclusion: The programme aimed to help services start to tackle poor and inequitable outcomes in ovarian cancer. Teams lacked of knowledge on quality improvement approaches and skills were built up. A small programme of 7 centres' improvement projects cannot by itself change cancer outcomes, but the teams gained a quality oversight of their service, recognising where improved service delivery could positively impact.

The programme successfully used the cohort effect for teams to learn from each other and support successful projects. It has promoted service improvement in ovarian cancer and put QI on the professional map in this sector. The programme showed that small projects can generate service level improvements, with the potential to translate into improved clinical outcomes.

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Disclosure of Interest: None Declared

Learning from Soft Intelligence for Patient Safety: Development and Piloting of a Tool for Continuous Data Capture and Sensemaking: (2899) Jonathan Benn

ISQUA2024-ABS-2899

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Introduction: Over the last two decades, patient safety incident reporting systems have formed a fundamental component of safety intelligence in healthcare, despite acknowledged limitations in capacity to support learning (Benn, 2009; Macrae, 2016). To enhance monitoring, analysis and learning, new frameworks for measurement and monitoring have emerged, designed to complement a reactive focus on past harm with more proactive use of intelligence (Vincent, 2014; Hollnagel, 2015). “Soft intelligence” refers to the processes and behaviours associated with capture and use of information that is often difficult to quantify for intervention (Martin, 2015). Staff narratives, as a form of soft intelligence, are potentially a rich resource for organisational learning and collective sensemaking (Waring, 2009). Unstructured, spontaneous employee narratives may capture important nuanced tacit knowledge and experience concerning how to adapt to maintain safety in the face of dynamic risks. Digital capture and feedback of soft intelligence in near real-time is a promising concept but there is limited research in this area to support potential solutions. In this study, we report the results of work in the UK to develop a soft intelligence tool for patient safety, including a 12-month pilot study. Our specific research aims were to:

- 1) explore the feasibility of continuous capture of staff experiences in the form of staff-generated safety and wellbeing narratives;
- 2) evaluate the patient safety learning potential of unstructured narrative data;
- 3) develop a framework for monitoring, sensemaking and prioritisation of potential signals concerning patient safety in soft data.

Methods: We used co-design principles and qualitative research methods to develop and pilot a data collection tool for soft intelligence based on the SenseMaker® digital platform, in a large academic perioperative services centre in the South of England, including nursing staff, healthcare assistants, allied health professionals, anaesthetists and surgeons, working across two sites. The work was structured in two phases. In Phase 1, staff submitted 271 narratives over 14 months. To understand the safety-relevant content of narratives, the text was qualitatively analysed using thematic analysis involving inductive and deductive coding. In Phase 2, a revised data collector and self-coding framework was co-designed based upon insights from phase 1.

Results: Staff narratives were a rich source of information on dynamic risks, opportunities to enhance system resilience, safety best practice, saves/catches and compensatory strategies. Content was both event-driven and captured non-event tacit knowledge on patient and staff safety. A hierarchical coding framework for safety learning potential was developed with upper levels of the framework linked to contextualised novel recommendations for safety improvement and compensatory practices either in response to or anticipation of emerging vulnerabilities. Self-coded narrative content supported

monitoring of sentiments linked to staff concerns over time, staff feedback and dialogue between staff groups.

Conclusion: Our analysis demonstrates the potential value of capturing staff experiences and tacit knowledge as a form of safety intelligence, above and beyond incident or event-driven data. Feedback from this data may have the potential to promote safety culture through encouraging staff to think proactively about safety and engage in more open dialogue concerning safety. If we can attend to and learn from softer signals in routine practice we might proactively develop and promulgate strategies based upon understanding how clinical work systems and healthcare professionals effectively and routinely adapt to maintain safety.

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Disclosure of Interest: None Declared

An online-based patient safety culture survey at 20 healthcare facilities in six districts in Indonesia: a benchmarking study: (3080) Poppy Elvira Deviany

ISQUA2024-ABS-3080

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Introduction: Patient safety culture is a critical component of quality of care not only to protect the patients but also health providers. An in-depth understanding of patient safety culture will assist healthcare facilities in improving the quality of services. Healthcare facilities, as an organization, should continuously develop and improve a culture that pays attention to quality and patient safety. This requires the measurement of values, beliefs, and norms within the organization, as well as attitudes and behaviors. The Indonesia Ministry of Health (MOH) is at the beginning stage of regulating patient safety culture surveys for healthcare facilities. This study aimed to capture existing patient safety culture in public and private healthcare facilities through an online-based patient safety culture survey and supported the MOH in preparing a national guideline.

Methods: The survey was a one-time measurement using questions adapted from the patient safety culture questionnaire by the Agency for Healthcare Research and Quality, version 2.0. Staff from healthcare facilities individually completed the online survey in September 2023. The survey was conducted in 20 selected healthcare facilities including public hospitals (n=6), private hospitals (n=7),

and primary healthcare facilities (n=7) in six districts of the Momentum Private Healthcare Delivery working area in three provinces i.e., North Sumatra, Banten, and South Sulawesi.

Results: Survey responses were obtained from 95% of the target (2,504 of 2,629 individual staff). The ten dimensions of safety culture were analyzed separately for hospital and primary healthcare facilities, scored between 0 to 100. Of the 13 hospitals, the overall score was 71; two safety culture measures with the highest scores were teamwork (score=91) and organization learning-continuous improvement (score=88). Measures with the lowest score for hospitals were reporting patient safety events (score=27) and staffing and work pace (score=45). There was no difference in the results of safety culture measures between public and private hospitals. Of the seven primary healthcare facilities, the overall score was 69 and the two highest scores were on teamwork (score=91) and organization learning-continuous improvement (score=88). The lowest scores at primary level facilities were reporting patient safety events (score=12) and staffing and work pace (score=48).

Image:

Safety Culture Measures of 20 Healthcare Facilities in Six Districts in Indonesia

Facility Code	Average score	Safety Culture Measures - Individual Score									
		Teamwork	Staffing and work pace	Organization learning-continuous improvement	Response to error	Supervisor, manager, or clinical leader support for patient safety	Communication about error	Communication openness	Reporting patient safety events	Management support for patient safety	Handoffs and information exchange
Hospital-1	74	84	45	81	76	75	87	73	27	82	83
Hospital-2	70	88	48	82	64	72	88	88	28	77	78
Hospital-3	94	87	47	81	62	65	79	61	20	71	76
Hospital-4	74	81	42	78	68	78	87	71	28	75	87
Hospital-5	87	87	49	87	80	87	94	82	21	70	79
Hospital-6	72	91	46	91	68	76	82	86	27	76	79
Hospital-7	88	81	54	81	78	70	91	82	80	87	88
Hospital-8	71	94	52	80	70	74	73	70	23	78	82
Hospital-9	60	88	27	83	59	62	71	59	22	60	69
Hospital-10	72	94	57	80	70	74	73	70	21	76	82
Hospital-11	78	91	55	85	68	82	88	75	23	75	87
Hospital-12	70	91	47	80	70	74	79	86	27	78	77
Hospital-13	88	91	45	89	60	78	79	89	28	74	77
Clinic-1	72	81	39	88	64	75	59	78	21	82	86
Clinic-2	74	100	45	90	72	74	75	67	26	75	85
Clinic-3	78	91	42	91	69	74	78	86	11	79	82
Clinic-4	58	89	49	81	50	50	64	98	4	72	67
Clinic-5	73	88	40	87	67	80	62	71	1	80	88
Clinic-6	87	81	38	81	54	73	53	83	8	79	81
Clinic-7	67	90	50	88	63	70	61	80	12	71	78

Conclusion: Survey results indicate a moderate level of patient safety culture in hospitals and primary healthcare facilities with major areas of improvement in the reporting of patient safety events and staffing and work pace. The high response rate shows the potential use of an online-based approach to implement the survey. Recommendations based on the results of safety culture measures for individual facilities will increase their capacity to develop strategies and manage safety culture. Findings from this study are relevant to support the MOH in developing national guidelines on patient safety culture surveys for hospitals and primary healthcare facilities.

Disclosure of Interest: None Declared

Analysis of barriers and facilitators of patient safety culture assessments in Brazil using the consolidated framework for implementation research: (3492) Zenewton André da Silva Gama

ISQUA2024-ABS-3492

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Introduction: The World Health Organization (WHO) Global Patient Safety Action Plan 2021-2030 set the goal of increasing the number of countries and health services that regularly use patient safety culture surveys.

In Brazil, the Integrated Plan for Health Management of Patient Safety 2021-2025 proposed to conduct these assessments with specific goals for the participation of hospitals in each state, an online platform to administer the questionnaires, support for the use of the platform, webinar guidance, and support for hospitals through representatives of the national health surveillance system.

In the 2021 and 2023 national assessments, just over 15% of invited hospitals participated (305 and 366 hospitals, respectively). We designed a study to understand facilitators and barriers of implementing patient safety culture assessments in Brazil using the Consolidated Framework for Implementation Research (CFIR).

Methods: This was a sequential exploratory mixed methods study design. The project was designed in two phases: (1) Qualitative data collection and analysis and (2) Quantitative data collection and analysis.

The participants were coordinators of Patient Safety Centers (NSP) of public and private Brazilian hospitals that did not carry out an assessment of the patient safety culture in their hospital in 2023. We invited all coordinators of PSC registered in the National Health Surveillance Agency – Anvisa.

An electronic questionnaire was used about “what were the barriers to participation in the safety culture assessment?” After collecting the data, the responses were classified according to the CFIR constructs and a second questionnaire was applied to the same target universe to quantify the importance of the previously identified barriers.

Qualitative data were presented in a theoretical model in the form of a cause-effect diagram and quantitative data about barriers will be prioritized with a Pareto Diagram.

This study is exempt from ethical IRB based on article 1 and item 7 of the Resolution nº 510, 2016, from the National Health Council.

Results: 82 coordinators of Patient Safety Centers from 22 of 27 states participated in the qualitative consultation. The responses categorized according to the CFIR gave rise to the following theoretical model of barriers in Figure 1.

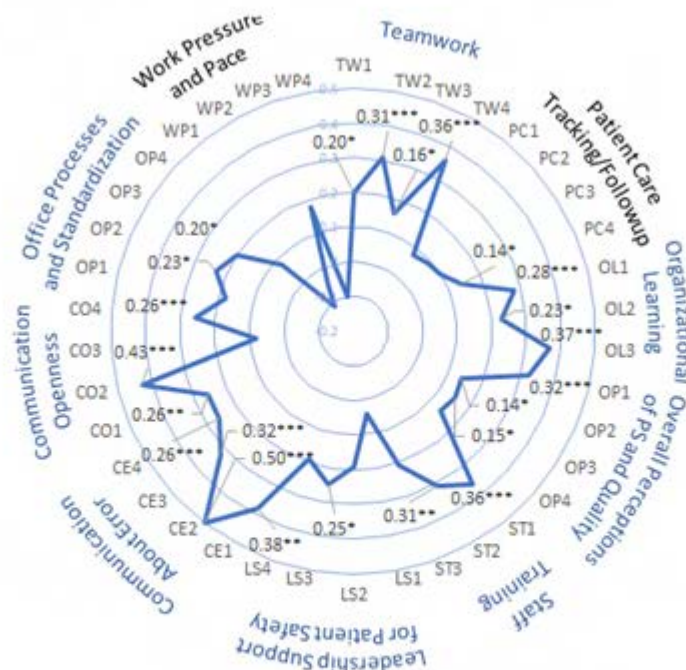
The main facilitators were: need to simplify and reduce the number of questions in the questionnaire (n=24), expand communication about the national assessment (n=13), increase support for Patient

from staff who took the HMA survey in the year 2021 (when only DD was in place) and in 2023 (after the DD+safety implementation) to perform a pre-post evaluation. A multivariate regression analysis clustered by medical center was estimated to assess the association between awareness of the DD+safety and different dimensions of PSC.

Results: A total of 455 staff completed the HMA survey in 2021 (24% response rate) and 995 completed it in 2023 (55% response rate). Our results show a significant improvement in multiple dimensions of PSC associated after the intervention (see Figure 1), in particular among those who reported to aware of the DD+safety program. The largest statistically significant improvements were observed in *communication about errors* (from 26 to 50 percentage points increase in positive responses), *organizational learning* (from 23 to 37 percentage points increase), and *teamwork* (from 16 to 36 percentage points increase). Additionally, DD+safety was associated with a 28 percentage points increase (p-value<0.001) in the proportion of staff who rated as very good or excellent the systems and clinical processes that the medical office has in place to prevent, catch, and correct problems that have the potential to affect patients. Additional results show that leaders consistently have a better perspective of PSC compared to clinical staff, while non-clinical staff tend to have a worst perspective in multiple dimensions of PSC. We also observed that larger centers usually have lower PSC scores compared to centers with less than 40 staff.

Image:

Figure: Association between Daily Huddle with Safety Intervention (DD+Safety) and Dimensions of Patient Safety Culture



The values represent a unit increase in elements of Patient Safety Culture (PSC) using a scale from 1 (most negative assessment) to 5 (most positive assessment). Elements are grouped by 10 dimensions of PSC: Teamwork (TW), Patient Care Tracking/Followup (PC), Organizational Learning (OL), Overall Perceptions of Patient Safety and Quality (OP), Staff Training (ST), Owner/Managing Partner/Leadership Support for Patient Safety (LS), Communication About Error (CE), Communication Openness (CO), Office Processes and Standardization (OP), and Work Pressure and Pace (WP). Only values that are statistically significant are shown: *p-value<0.05; **p-value<0.01; ***p-value<0.001.

Conclusion: This study suggests that adding a structured patient safety discussion to daily hurdles in ambulatory settings could improve PSC in key dimensions like communication about errors,

organizational learning and teamwork. Our results are consistent with previous analysis on safety huddles [6,7], mostly performed in hospitals and developed countries.

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Disclosure of Interest: A. Arrieta Consultant for: <USD25,000, C. Arregui Reyes Employee of: >USD25,000

First national survey to measure patient safety culture within healthcare facilities in France: (2840) Amélie Lansiaux

ISQUA2024-ABS-2840

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Introduction: Patient safety culture is a set of behaviours and attitudes that contribute to patient safety and that are shared collectively throughout the organisation (teams, healthcare facilities). In France, patient safety culture is one of the assessment items for healthcare facility certification. Before putting in place actions aimed at developing a safety culture, it is first of all necessary to assess its level. To this end, the French National Federation of Regional Quality and Safety Support Organisations (FORAP) and the French National Authority for Health (HAS) have been promoting this type of survey since 2010 and wanted to conduct the first national survey to measure patient safety culture within healthcare facilities in France in 2023.

Methods: The survey was proposed to all French healthcare facilities between 1 May and 30 June 2023, via a dedicated platform. A validated French-language version of the “Hospital Survey On Patient Safety Culture” (Agency for Healthcare Research and Quality) was used. The aim of the questionnaire was to anonymously and individually collect professionals' perceptions of patient safety on a work group level. Hence ten dimensions were measured via 43 questions. The survey participation rate had to be at least 60% at each work group for the results to be representative. In addition, the completion rate for each questionnaire had to be at least 50%. If the average score for a dimension was $\leq 50\%$ then it was a dimension with a high potential for improvement. Conversely, if the average score for a dimension was $\geq 75\%$ then this was a dimension perceived as being well developed in the healthcare facility.

Results: Out of a total of almost 3,000 French healthcare facilities, 661 (private and public) participated in the survey, corresponding to 50,071 respondents. Of these, 47,974 completed 50% or more of the questionnaire. After having selected only work groups with a participation rate of at least 60%, the results were analysed for 27,389 respondents. Of the ten safety culture dimensions measured, five of them had an average score below 50% and therefore appear to require the implementation of priority improvement actions. These concerned human resources (32%), a non-punitive response to errors (35%), teamwork between the facility's departments (39%), management support for healthcare safety (44%) and the overall perception of safety (48%). The average scores of the other five dimensions (adverse event report frequency; teamwork within the department; etc.) were all between 50 and 74%, highlighting potential room for improvement.

Conclusion: The roll-out of the national survey included assistance from each Regional Quality and Safety Support Organisation to provide step-by-step guidance on interpreting, taking ownership of and sharing the results of the patient safety culture assessment. The aim was to define the most appropriate improvement actions. These elements were presented during a national webinar, along with the tools available to improve patient safety culture (safety walkarounds, guide to analysing care-related adverse events, continuous improvement programme for teamwork, accreditation of physicians and medical teams, etc.). A new national survey is planned for 2027 as part of a national programme for improving patient safety.

Disclosure of Interest: None Declared

Enhancing Maternal Health Care through Patient Feedback: The Role of Women's Education in Quality Improvement: (2955) Elisabeth Ezekiel

ISQUA2024-ABS-2995

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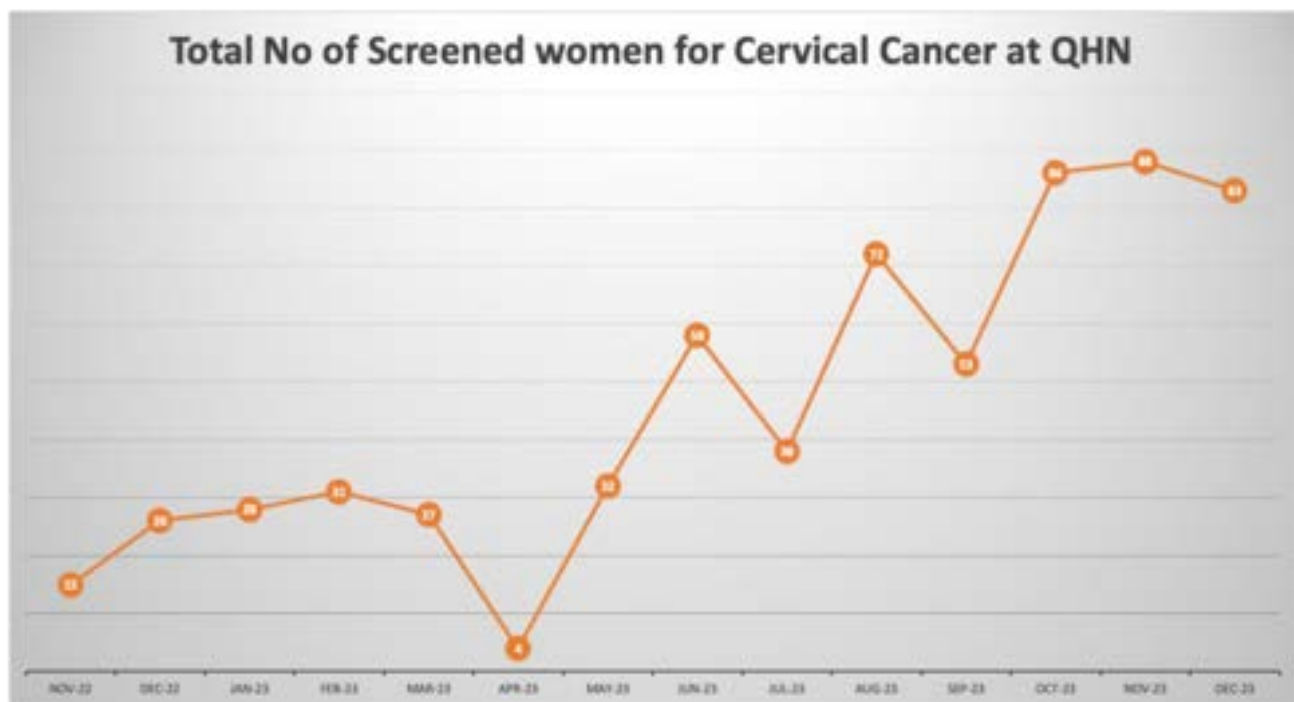
Introduction: Cervical cancer is a global public health problem. The proven effectiveness of intervention measures, such as vaccination (1) and screening, makes cervical cancer a largely preventable disease. (2) Among women globally, Cervical cancer is the fourth most common neoplasm and the fourth leading cause of cancer death (3) The literature demonstrated that, unlike global trends, cervical cancer incidence in Saudi Arabia is increasing. In addition to that, a high proportion of it is discovered in advanced stages. This state of late discovery was attributed to the absence of efficient preventive and screening programs. (4) By 2030, the yearly incidence of cervical cancer is expected to jump to 700,000, and the number of deaths is predicted to increase if no further intervention is done (5)

Methods: The study aim to evaluate the prevalence of abnormal Pap smear results among women who were screened at Qatif Central Primary Health Care Centers, between November 2022 and December 2023, with the aim of establishing a mandatory national screening program based on the findings

The project has adopted a continuous approach by implementing a newly established cervical screening program at Primary Health Centers (PHCs), which utilizes Pap smear tests for asymptomatic women. This program is overseen by family physicians. Additionally, the project includes training for family physicians to implement national guidelines, raising awareness, and developing key performance indicators to monitor progress

Results: A sum of 626 Pap smears were conducted, aiming to reach 2% of married women annually, equivalent to approximately 44 Pap smears per month. This endeavor resulted in the detection of specific cases of ASCUS, LSIL, HSIL, and Adenocarcinoma, prompting the need for further examination and referral for additional assessment.

Image:



Conclusion: The introduction of a compulsory cervical cancer screening program in the Qatif region marks a significant stride towards enhancing women's health. This initiative prioritizes early detection and prevention, aiming to mitigate the impact of cervical cancer through proactive measures

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Monitoring Editor: Alexander Muacevic and John R Adler

[Fatimah H Alkhamis](#),¹ [Zainab Alabbas S Alabbas](#),¹ [Jwaher E Al Mulhim](#),¹ [Fadk F Alabdulmohsin](#),¹ [Mariyyah H Alshaqaiq](#),¹ and [Eithar A Alali](#)¹

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Safety Culture Redefined: A Leadership Perspective in Healthcare Transformation: (1354) Gaurav Loria

ISQUA2024-ABS-1354

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Introduction:

Ensuring patient safety and maintaining a high standard of care within healthcare organizations are paramount objectives, especially in the wake of the challenging circumstances posed by the COVID-19 pandemic. Through the lens of annual safety culture surveys administered among a diverse workforce, this study unveils the nuanced evolution of the hospital's safety culture across 12 dimensions. Ranging from communication openness to organizational learning—and continuous improvement, these dimensions provide a comprehensive view of the multifaceted elements that contribute to shaping the safety culture within a healthcare institution. Employing a robust assessment tool developed by the Agency for Healthcare Research and Quality (AHRQ) facilitates a thorough understanding of the hospital's safety culture landscape.

Examining data from 2019 to 2023, we highlight positive trends in aspects like communication openness, feedback mechanisms, and organizational learning. Simultaneously, we draw attention to persistent challenges concerning staffing levels and fostering a non-punitive response to errors. Through comparative analysis with the AHRQ database and an exploration of branch-specific differences, we offer insights designed to extend beyond the immediate hospital setting, providing valuable lessons and recommendations for healthcare organizations worldwide.

Methods: Our study employed an annual safety culture survey tool developed by the Agency for Healthcare Research and Quality (AHRQ). This survey comprises 42 items measuring 12 dimensions, including communication openness, feedback mechanisms, and organizational learning. The survey also gauges outcomes such as patient safety grade and the number of reported events. Utilizing a five-point Likert scale, responses ranged from strongly disagree to strongly agree.

The survey was administered online to all hospital employees across multiple branches in India. Participation was voluntary and anonymous to encourage candid responses. Data analysis included descriptive statistics such as mean scores, standard deviations, frequencies, percentages, and confidence intervals. Additionally, a comparative analysis with the AHRQ database was conducted to contextualize our findings. Ethical considerations were carefully observed, and the study adhered to all relevant guidelines and regulations.

Results: Our analysis of the safety culture survey data spanning from 2019 to 2023 reveals noteworthy trends in various dimensions. Positive associations were observed in communication openness, feedback mechanisms, and organizational learning, indicative of a progressively improving safety culture.

However, challenges were identified, particularly in relation to staffing levels and the establishment of a non-punitive response to errors. These findings underscore the multifaceted nature of safety culture within the hospital.

Conclusion: In conclusion, our study highlights the positive evolution of safety culture within the hospital over the past five years, particularly in dimensions such as communication openness, feedback mechanisms, and organizational learning. While these improvements are commendable, challenges persist, notably in staffing levels and fostering a non-punitive response to errors.

These findings have direct implications for clinical practice, emphasizing the need for continued efforts in enhancing communication, feedback processes, and organizational learning. Addressing staffing challenges and cultivating a culture that encourages open reporting of errors without fear of punishment are critical steps toward sustaining and further improving patient safety.

Our study contributes practical insights, grounded in data, to guide healthcare organizations in their ongoing pursuit of excellence in safety culture. The nuanced understanding gained from our findings informs targeted interventions and emphasizes the pivotal role of leadership in shaping a positive safety culture for improved patient outcomes.

Disclosure of Interest: None Declared

Correlation between patient safety culture and the safety-relevant attitude of supervisors in Austrian hospitals: Potential for improvement: (2846) Guido Offermanns

ISQUA2024-ABS-2846

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Introduction: Inadequate hospital care results in a significant number of adverse events, which are the leading cause of morbidity and mortality in the health sector worldwide. These incidents also burden health systems considerably, with an estimated 10% to 15% of health expenditures directly attributable to patient safety incidents. To ensure patient safety and quality in health care, a safety-centred attitude from the direct supervisor is essential. The safety-related attitude relates to, among other things, punctuality, fairness, efficiency of treatment, and the focus on patients. Regarding the attitude of direct supervisors in a hospital setting, this study addresses the following research question: Do healthcare supervisors have consistent safety attitudes across different clinics/areas of work, and how is patient safety related to supervisor safety attitudes?

Methods: The data were collected from June to September 2023. The validated Patient Safety Climate Inventory Austria (PaSKI AUT) was used to assess patient safety in two Austrian hospitals under one ownership. For data analysis, 525 questionnaires (response rate of 51%) were used. The manually completed questionnaires were transferred into an SPSS file and then analysed using descriptive statistics such as the Spearman correlation and significance tests. Kruskal-Wallis and post-hoc tests with a Bonferroni correction were used to analyse possible differences in different clinics/areas

between the variables 'safety-related attitude of the direct supervisor', 'punctuality', 'fairness', 'efficiency of treatment', 'patient orientation' and 'level of patient safety'.

Results: The Spearman correlation showed a positive relationship between the level of patient safety and the safety-related attitudes of the supervisor ($p = .37, p < .001$). Kruskal-Wallis and post-hoc tests revealed significant differences between the main areas of work, such as internal medicine and other facilities, as well as in the safety-related attitude of the direct supervisor ($p < .05$). Further differences emerged in the working areas and between the variables 'patient orientation', 'punctuality', 'efficiency of treatment' and 'level of patient safety' ($p < .05$).

Conclusion: Regarding the research question, there are significant differences between working in clinics/areas regarding views on patient safety and other variables, as well as a positive correlation between the variables of patient safety and safety-relevant attitudes of supervisors. It could thus be shown that in some departments, the standards for patient safety are provable lower than in others, including the relevant reasons. Better attitudes on the part of direct supervisors and the introduction of targeted instruments would help to improve patient safety. In a follow-up a qualitative analysis with semi-structured interviews could be used to determine the reasons for these differences between departments. The study was conducted as a cross-sectional study. To test the effectiveness of the implemented changes, measurements will be taken again at a second point in time, which will be a longitudinal study.

Disclosure of Interest: None Declared

Findings from Ireland's first National End of Life Survey; a survey of bereaved people on care provided to relatives and friends in the last three months of life: (3184) Donnacha O' Ceallaigh

ISQUA2024-ABS-3184

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Introduction: The National End of Life Survey is Ireland's first national survey to ask bereaved people about the care provided to relatives and friends in the last months and days of life. The aim of the survey is to learn from people's experiences of end-of-life care in order to improve services provided both to people who are dying and to their loved ones, as well as to replicate areas of good experience across healthcare services and settings.

Methods: People who registered the death of an adult relative or friend (aged 18 and over) who died between 1 September and 31 December 2022 were eligible to participate. Sudden and unexpected deaths were excluded. Eligible participants received a survey pack by post between March and June 2023, with the option of completing the survey by paper or online. The survey questionnaire consisted of 110 questions, and captured experiences of care provided in the last three months of life in

hospitals, hospices, nursing homes and at home. The survey included questions on pain management, respect and dignity, emotional support, communication with healthcare staff, the provision of information and coordination of care within and between services.

A communications plan was successfully implemented to maximize the survey's response rate. This included raising awareness of the survey via social media, information webinars and radio advertisements.

Results: Approximately 9,500 bereaved people were invited to participate in the survey, of whom 4,570 people chose to take part (48% response rate). Findings indicate that the majority of respondents reported that the care their relatives and friends received was either good or very good and that their relatives and friends were treated with respect and dignity. However, respondents also reported that the care provided could be coordinated better, both across and within services and settings where their relatives and friends received end-of-life care.

Conclusion: The survey represents the first standardised national approach to capturing the experiences of bereaved people to improve end-of-life care in Ireland. Nominated healthcare professionals were provided with access to the findings through the National End of Life Survey dashboard, and are using the findings to inform the development of quality improvement plans to improve experiences of end-of-life care.

Disclosure of Interest: D. O' Ceallaigh Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland. , C. Foley Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland. , D. Rohde Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland. , T. O'Carroll Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland. , E. Tuohy Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland. , R. Flynn Employee of: Health Information and Quality Authority (HIQA), the regulatory body for health and social care services in the Republic of Ireland.

Lightning Talks

[Integrating Cervical Cancer Screening Program as Model of Care in Eastern Health Cluster: \(2753\)](#)
[Dalia Al-OUF](#)

ISQUA2024-ABS-2753

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Introduction: Cervical cancer is a major global health burden, especially for women who face significant challenges due to limited resources and limited access to healthcare services. The Pap smear is a commonly used technique in many contexts, and cervical cancer screening programs are essential for the early detection and prevention of the disease. This article discusses the implementation and effectiveness of Pap smear-based cervical cancer screening programs in Saudi Arabia's infrastructure screening program, as well as the associated barriers and potential solutions.

Methods: The development of an effective cervical cancer screening program involves various key analysis and engagement activities. The following steps are typically conducted: 1- Needs assessment: This involves conducting a literature review to gather data on cervical cancer incidence and mortality rates. 2- Stakeholder mapping and consultations through surveys, interviews, and focus group meetings conducted to understand their perspectives and needs 3- Program design: Clinical guidelines and evidence on screening best practices are reviewed. Also, the impact on the yearly budget and the cost-effectiveness of potential program approaches are assessed. 4- Pilot testing: The program processes typically around 100 cases, for a period of 3 months then scale up phase to 1000 cases per year as 2% married women from each primary healthcare that is involved in this project through the evaluation of feasibility testing. 5- Public awareness campaigns designed for primary healthcare centers. 6- Monitoring and evaluation: Screening rates, follow-ups, and outcomes are tracked to assess whether the program is achieving its goals whicg are facilitated using software such as **Redcap**, developed by Eastern Health Cluster (EHC).

By following these steps, a comprehensive and effective cervical cancer screening program was developed and established.

Results: The performance and embed change in this screening program, several approaches implemented. Continuous Quality Improvement (CQI): data analysis, and feedback mechanisms in identify areas for improvement. (KPIs) can be demonstrated through improved screening rates and increased adherence to recommended follow-up procedures. Implementing systematic recall and reminder systems was effective strategy to encourage timely and regular screening facilitated by care coordinators. These KPIs was calculated through RedCap , which used in evaluating this program include the percentage of pap smears performed, average wait time from pap smear to lab result, percentage of pap smear rejections, average wait time from lab result to primary healthcare receipt of results, average wait time from a positive result to referral to a tertiary hospital, percentage of time between secondary and tertiary hospital referrals, percentage of patients with positive cervical cancer results, and cervical cytology classification rates based on CAP classification rate percentile as a benchmark. By tracking these KPIs over time, program managers an evaluate the effectiveness of the cervical cancer screening program, identify areas for improvement, and make decisions to optimize early detection, treatment modalities, and prevention of cervical cancer.

Image:

A screenshot of the REDCap (Research Electronic Data Capture) web interface. The page title is "MOC - Cervical Cancer". The left sidebar shows navigation options like "My Projects", "Project Home", "Data Collection", and "Help & Info". The main content area displays a form titled "Form 1.2" with sections for "National ID", "Demographics", "PNC Information", and "Regional Lab". Fields include "National ID", "Patient Name", "Date of Birth", "Age", "Marital Status", "Zone", "PNC Visit Date", "Pap Smear Performed", and "Regional Lab". There are "Save" and "Cancel" buttons at the top right.

Conclusion: Recommendation: Documenting challenges and lessons at each phase of a cervical cancer screening program is crucial for refining implementation approaches. Pilot testing helps uncover and anticipating challenges during the scale-up phase, such as supply chain management for test kits. User-friendly digital tracking systems, such as **RedCAP**. Continuous improvement of screening tests and tools based on evolving technologies. Partnering with secondary institutions to explore introducing emerging technologies like HPV DNA testing can be considered for future scale-up phases. Standardizing pathological reports and assessments across implementers helps achieve long-term centralized coordination and strengthens referral pathways from screening to treatment. Upgrading lab facilities by improving infrastructure and installing state-of-the-art equipment leads to faster and improved healthcare services. **In conclusion**, Pap smear-based cervical cancer screening programs have the potential to reduce the burden of cervical cancer . However, successful implementation requires collaborative efforts between governments, healthcare organizations, and international partners are essential for developing sustainable and comprehensive cervical cancer screening programs that can make a significant impact on women's health in early staged cervical cancer through national health screening program in Saudi Arabia.

Disclosure of Interest: None Declared

Improving Performance for Private Practice Midwife through online Client Satisfaction Survey: (2260) Damaryanti Suryaningsih

ISQUA2024-ABS-2260

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Introduction: In Indonesia the role of midwives as the front-liner in maternal and new-born delivery service is important as the majority of people would go to midwives during pregnancy and maternity. The Ministry of Health conducted Basic Health Research and reported that in November 2018, about 85% of pregnancy care among women between the age of 10-54 years was performed by midwives. As for birth attendance, the data show similar result; in which 62.7% of births were attended by midwives. Those figures indicate that the midwives are still the primary providers of pregnancy and delivery care in Indonesia. The midwives referred to this report are private midwife practitioners.

In a public service, customer satisfaction is one of the foundations for institutions that must be strengthened. As a health service provider, midwives also need to pay attention to the satisfaction of the patients they serve. Patient satisfaction is a level of patient feelings that arise as a result of the performance of the health services they receive after the patient compares them with their expectations. Measuring patient satisfaction is an indicator to determine the quality of health services and patient expectations have an important role as a comparison standard in evaluating satisfaction. Service satisfaction has also become an obligation for service providers as mandated by Indonesia Law 25 of 2009 concerning Public Services.

USAID MOMENTUM Private Healthcare Delivery Project (2021-2025) support Indonesian Midwives Association to conduct Customer Satisfaction Survey of private midwife clinic.

The survey objectives are:

1. To obtain information and experiences of patients receiving maternal and new born health services and families
2. To obtain and get feedback from recipients of maternal and new born services as material for improving service quality and improving policies
3. Increase the awareness of midwives providing services to continuously improve the quality of their services.

Methods: Cross sectional study. The study was conduct in 3 districts in Indonesia. Sample using purposive sampling, 10% of a total of private midwife practice in each district. The data collection carried out through online survey. The population are recipients of maternal and new born services from selected private practice midwife in the last 3 months. The sample will be selected using Krejci and Morgan tables. The data will be processed using the Community Satisfaction Survey data processing framework in accordance with Ministerial Regulation 14 of 2017.

Results:

1. Clarity of service information provided	3,43	85,85	B	Good
2. Patient understanding of service procedures	3,18	79,57	B	Good
3. Midwives' speed in providing services	3,35	83,8	B	Good
4. Reasonable service costs/tariffs	3,04	76,17	C	Fair
5. Conformity between the services received and those expected	3,32	83,05	B	Good
6. Competence/ability of midwives in providing services	3,41	85,31	B	Good
7. Politeness and friendliness of midwives in providing services	3,5	87,62	B	Good
8. Quality of facilities and infrastructure at the facility	3,25	81,26	B	Good
9. Availability of complaint channels	3,29	82,2	B	Good
10. Follow up on complaints given	3,26	81,47	B	Good
Average	3,307	84,29	B	Good

From 1085, 962 clients responded to the survey. From 10 questions IKP, 9 were good and only question “reasonable service cost question” was fair.

Conclusion: The result can be to improve the service of private practice midwife, and the survey online can be a routine feedback system in Indonesian Midwife Association

Disclosure of Interest: None Declared

Enhancing Diversity in Health Research through Research Engagement Network (REN): A Hyperlocal Community- Based Approach in Northwest London (NWL): (2622)
Ganesh Sathyamoorthy

ISQUA2024-ABS-2622

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Introduction: Communities championing their own health is crucial to providing sustainable and integrated health services of the future. However, research in integrated care has an underrepresentation of population groups, particularly ethnic minority communities, that are at increased risk of developing diseases. Community-based participatory research is where community and research stakeholders have meaningful dialogue. Embodying this approach, the Research Engagement Network (REN) initiative, which is an iterative programme, strives to promote diversity in research participation in NWL region, an area of over 3 million population, through three strategies: community-based health roadshows, Community Research Champions (CRCs), and the Partnership Forum (PF). Our objective was to engage a diverse range of communities, facilitate meaningful conversations with the CRCs about diversity in research and contribute to shaping research priorities by gathering insights and perspectives from the community.

Methods: We utilised a bottom-up, hyper-local, community-based approach to engage with diverse communities in two most ethnically diverse districts in NWL. Multiple trained CRCs facilitated discussions on diversity in research. The Partnership Forum, consisting of independent chairs, was established to strengthen networking between Primary Care Networks, statutory bodies, and academic partners. Furthermore, partnerships were established between academia, public health, the voluntary sector, and primary care networks to create multi-agency collaboration. Agile project management helped increase community engagement through multi-agency health "roadshows" events, fostering a collaborative approach to community health.

Employing a mixed-methods approach, we gathered valuable insights from roadshows, identified issues, and evaluated current challenges and readiness for research participation. Additionally, we collaborated with stakeholders to co-create innovative solutions iteratively to tackle obstacles and drive positive change.

Results: The health roadshows engaged more than 1,200 residents, offering health checks, community services, and research participation opportunities. Trained CRCs facilitated discussions, with feedback showing 95% and 92% recognise the importance of and understand health research, respectively, and 75% express willingness to participate. While slightly more than half (55%) knew where to look for research findings (55%), it forms a basis to strengthen community engagement. The project highlighted the voluntary sector's potential, showcasing collaborative impacts on NWL with potential applicability to additional districts.

The project's impact spanned five key areas (Figure 1). It created safe spaces that fostered relationships and trust, addressed language barriers to encourage greater engagement with health and research partners, and contributed to reducing social isolation by identifying community issues such as digital

inclusion. The success of this initiative has laid the groundwork for REN2, which will continue to build on these outcomes and expand to other districts regionally while focusing on key healthcare needs.

Image:



Figure 1: The impact of REN on the community

Conclusion: This project demonstrated that the three-pillar strategy— community-based health roadshows, CRCs, and the PF effectively engaged diverse communities, fostered meaningful conversations, and shaped research priorities. These collaborative efforts had a positive impact on communities, emphasising the ongoing need to address health disparities. As the income gaps widen and with ageing populations, it is essential to involve communities, creating integrated sustainable healthcare. This community model strategy is currently being scaled up within the region and is the basis of translation both nationally and internationally.

Disclosure of Interest: None Declared

Interdisciplinary collaboration and computer-assisted home healthcare referral in the emergency department: An innovative model in Taiwan: (3245) Hung-Jung Lin

ISQUA2024-ABS-3245

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Introduction: Home healthcare (HHC) provides continuous care for disabled patients. However, HHC referral after the emergency department (ED) discharge remains unclear. Thus, this study aimed its clarification.

Methods: A computer-assisted HHC referral by interdisciplinary collaboration among emergency physicians, case managers, nurse practitioners, geriatricians, and HHC nurses was built in a tertiary medical center in Taiwan. Patients who had HHC referrals after ED discharge between February 1, 2020, and September 31, 2020, were recruited into the study. A non-ED HHC cohort who had HHC referrals after hospitalization was also identified. Comparison for clinical characteristics and uses of medical resources was performed between ED HHC and non-ED HHC cohorts.

Results: The model was successfully implemented. In total, 34 patients with ED HHC and 40 patients with non-ED HHC were recruited into the study. The female proportion was 61.8% and 67.5%, and the mean age was 81.5 and 83.7 years in ED HHC and non-ED HHC cohorts, respectively. No significant difference was found in sex, age, underlying comorbidities, and ED diagnoses between the two cohorts. The ED HHC cohort had a lower median total medical expenditure within 3 months (34,030.0 vs. 56,624.0 New Taiwan Dollars, $p = 0.021$) compared with the non-ED HHC cohort. Compared to the non-ED HHC cohort, the ED HHC cohort had a lower ≤ 1 month ED visit, ≤ 6 months ED visit, and ≤ 3 months hospitalization; however, differences were not significant.

Conclusion: An innovative ED HHC model was successfully implemented. Further studies with more patients are warranted to investigate the impact.

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Disclosure of Interest: None Declared

Hub and Spoke Model: To Nurture Quality Improvement of Neonatal Services across four Nahdatul Ulama Hospital Network in East Java Province, Indonesia: (3072) Istiyani Purbaabsari

ISQUA2024-ABS-3072

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Introduction: The Indonesia Long form survey in 2020 documented the neonatal mortality rate of 9,3 per 1000 live birth. Poor quality care is one of the major contributing to this number. According to Indonesia Ministry of health report 2020, asphyxia still become the second major cause of death after low birth weight. Momentum Private Health Care Delivery (MPHD), a 4-year USAID-funded project, supports the government to introduce Hub and Spoke model for neonatal services quality improvement. This hub and spoke model implementation aim to nurture quality improvement (QI) culture in the participated facility.

Methods: The hub and spoke model (HSM) have been used to strengthen weak peripheral settings by connecting them to a more advanced resource hub. This hub and spoke model started to implement across four Nahdatul Ulama Hospital Network (LKNU Hospital) in August 2023. LKNU mentor hospital which have advanced QI skill were designated as hub and 3 other LKNU hospital as spokes. This model was combining offline workshop and online interactive session using WhatsApp Channel message, WhatsApp Class and Zoom virtual session. Asphyxia aim statement collaborative, measurement and bundle of care (BoC) that created from driver diagram developed by QI expert faculty in national level.

Results: One basic QI skill workshop, WhatsApp channel session where message regarding detail list of asphyxia BoC were shared through WhatsApp Group every day in one week, one zoom session for spokes to define their aim statement targets, measurements and list of selected BoC that will test using PDSA cycle and three online learning session were conducted. 14 QI projects were successfully completed by spokes hospital. After, the use of admission screening, partograph and fetal heart rate monitoring observation in 2nd stage of labor become their routine services. Aggregated Indicator on percentage of newborn asphyxia as an outcome indicator that hospital need to decrease, showed data from January- August 2023 (before implementation) were 1,73%, 3,61%, 3,09%, 1,66%, 3,57%, 0,84%, 4,88% and 2,87% respectively. And data from September - December 2023 were 1,49%, 1,99%, 2,40% and 0,78% respectively were below the median line (2,42%) which indicates a better direction of this outcome indicator.

Conclusion: Hub and spoke can addressed gap related resource and time in offline mentoring, because this model uses more online sessions. Hub and spoke allows several hospitals to work collaboratively that can accelerate quality of care improvement. Various components of the health system at all levels need to work in synergy to sustain improvement in quality of care. Hospital will not be able to carry out QI initiative alone, active participation of District Health Office and local government can play important role to create a quality improvement culture in the health system.

References: Indonesia Long form survey , 2020

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Disclosure of Interest: None Declared

Establish a Diversified Palliative Care Network in Long-term Care Institutions: (2397) Jheng-Ling Li

ISQUA2024-ABS-3297

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Introduction: Cerca de quarenta e cinco por cento dos pacientes recebem serviços médicos com benefícios mínimos ou nenhuns (cuidados de baixo valor). Além de aumentar os custos para o sistema de saúde, a realização de procedimentos invasivos sem indicação apresenta riscos potencialmente evitáveis à segurança do paciente.

Methods: Determinar se um programa gerenciado de melhoria da qualidade pode prevenir colecistectomias e cirurgias para tratamento de endometriose com benefício mínimo ou nenhum benefício para as pacientes. Estudo clínico antes e depois realizado em um hospital privado de São

Paulo, Brasil, cujo principal modelo de remuneração médica é a taxa por serviço. Foram avaliadas todas as pacientes cujo cirurgião agendou colecistectomia ou cirurgia para endometriose entre 1 de agosto de 2020 a 31 de maio de 2021. Limitação à realização de procedimentos que não atendam aos critérios previamente definidos ou cuja indicação não tenha sido validada por conselho de especialistas

Results: As características clínicas das pacientes e o desfecho foi a redução na realização de colecistectomias e cirurgias para tratamento de endometriose cuja indicação não foi validada por conselho de especialistas. Isto permitiu uma redução anual estimada de custos para o sistema de saúde de US\$ 484.356,35.

Conclusion: In a hospital with private practice and fee-for-service medical remuneration, the definition of clear criteria for indicating surgery and the analysis of cases that do not meet these criteria by a board of reputable experts at the institution resulted in a statistically significant reduction of low-value cholecystectomies and endometriosis surgeries.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-1847#

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Introduction: Rehabilitation is recommended as part of the solution to future demographic challenges posed by an increasing number of individuals with reduced functional capacity and chronic illnesses. Estimates indicate that one in three is in the need of rehabilitation at some point of life. In the 2011 WHO report on disability rehabilitation is defined as 'a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments'.

In some countries, rehabilitation guidelines on aim, content, and duration are widely available, whereas patients' right to access rehabilitation and referral pathways is only described sparsely. In Denmark, individuals encountering a functional impairment during the hospitalisation possess the right to have prescribed a rehabilitation plan (RP). The hospital exclusively prescribes the RP, with the majority of rehabilitation services administered at the municipality level. In 2021, approx. 200.000 RPs were issued in Denmark. Studies indicate that not all patients who could benefit from rehabilitation are referred. If certain sociodemographic characteristics are decisive for the prescription and the execution of the RP, it would compromise the principle of equal access to healthcare services.

The study aims to investigate potential disparities of individuals discharged with a rehabilitation plan from the hospital, explore the initiation of rehabilitation at the municipality level, and assess the extent to which rehabilitation plans are activated within 7 days following discharge.

Methods: The current study is a registry-based investigation including all acute hospital contacts from Odense University Hospital (OUH) during the years 2015 to 2020. The study utilises rehabilitation referrals, demographic and municipal data from a population of residents in Odense Municipality.

Descriptive analyses include patient characteristics, information on municipality-based services or care and residential status. The odds ratios (OR) for the prescription of a RP and the OR of an activated RP within 30 days are estimated using logistic regressions. A Kaplan-Meier plot illustrates the cumulative incidence of RP activations to determine the 30-day cutoff. The likelihood that the RP would be activated within period of 7 days were also estimated.

Results: The cohort comprised 308,030 residents of Odense Municipality discharged from the hospital from 2015 to 2020. Overall, 10,511 (3.5%) received an RP after hospital admission. Recipients of a RP were older, were single, had allocated domestic help and were ethnic Danes.

Men were less likely to have a RP prescribed (OR 0.95 [0.91; 0.99]). The results showed significantly lower odds for patients receiving nursing care (OR 0.94 [0.89; 0.98]). In contrast, the likelihood of having a RP prescribed increased, not surprisingly, with age, with the 80+ age group having the highest odds of receiving a RP (OR 9.30 [8.43; 10.26]). The odds also increased if the RP receiver was of Danish ethnicity (OR 1.60 [1.47; 1.75]).

For the overall prescribed RPs (n= 10,511), 37% (3,887) were initiated within the legislative requirements of seven days, 68.1% (7,042) of the perceived RPs were initiated within 30 days, and 71.6% (7,525) had initiated the RP in the municipality at 60 days. The results showed that non-initiation of the RP within 30 days substantially increased the risk of not initiating the RP at all.

Conclusion: The study's findings indicate that several variables appear to be associated with the issuance of a RP. Some of these variables are intuitively sensible (e.g., increased age), while others may potentially reflect unequal access to municipal rehabilitation services (e.g. gender and ethnicity). Potential inequality was not reflected in initiation of the RP. 37% of those who had prescribed a RP did start within the legally bound period of 7 days. If a RP was not initiated within 30 days chances were small for initiation at all.

Disclosure of Interest: None Declared

Tumor markers changed among hepatitis C adults after antiviral therapy: Implication for primary healthcare: (1815) Mei-Yen Chen

ISQUA2024-ABS-1815

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Introduction: In the real world, primary healthcare providers frequently find themselves explaining and addressing the significance of tumor markers. Traditionally, α -fetoprotein (AFP) is clinically utilized as a tumor marker for liver cancer; carbohydrate antigen-125 (CA125) is associated with ovarian cancer; carbohydrate antigen 19-9 (CA 19-9) is linked to gastrointestinal malignancies, and carcinoembryonic antigen (CEA) is employed to detect colorectal cancer. However, some elevated tumor markers are not specific for cancer diseases. Therefore, clinicians should consider this nonspecific elevation not only for tumor signs but also associated with cardiometabolic disorders. Chronic hepatitis C (CHC) is the leading cause of liver cirrhosis and hepatocellular carcinoma. Direct-acting antivirals (DAAs) are highly effective in virus clearance. Longitudinal effects on the tumor markers changed are lacking. This study aims to explore the long-term effects on tumor markers, liver, and renal function changes after receiving antivirals.

Methods: An observational and longitudinal cohort study was applied to the western coastal Yunlin County, Taiwan. Between July 2017 and December 2021, 191 rural adults with CHC participated in this project. The outcomes measured included four tumor markers and liver and renal function changes before and after DAAs therapy.

Results: The findings showed that the exception of the tumor marker of CEA, AFP, CA125, and CA19-9 had significantly reduced ($p < 0.001$), and all biomarkers of liver and renal function also significantly

improved ($p < 0.001$) after antiviral treatment. The regression coefficient of interaction indicated that females had a better chance in the GPT ($p < 0.05$) and GGT ($p < 0.01$).

Conclusion: This study demonstrated DAAs therapy significantly reduced tumor markers of AFP, CA125, CA19-9, and liver and renal function in rural adults with CHC after a longitudinal observation. These findings implied that primary healthcare providers and clinicians should initiate case finding in the disadvantaged area and encourage adults with CHC to receive DAAs therapy.

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Disclosure of Interest: None Declared

**My Voice Our Stories: using storytelling data to inform public policy and address unmet needs:
(3357) Michael T Hager**

ISQUA2024-ABS-3357

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Introduction: While quality initiatives typically have access to expansive quantitative data for analysis to inspect for deficiencies, qualitative data sources are lacking to inform on nuanced contexts that play into quantitative results. Without such qualitative data, there is risk for biases to influence the interpretation of quantitative data. The degree to which traumas and other factors weigh on individuals and communities is invisible. There is risk that incorrect inferences will lead to development of ill-fitting interventions that solve the wrong problem. Storytelling projects offer solutions by creating sources of valid mixed-methods data for analysis. Our presentation will layout the scientific methods used to create such storytelling projects and how Ready Aim Innovate (RAI) developed its code book for the purpose of coding stories.

Methods: My Voice Our Stories (MVOS) is rooted in community-based participatory research, evidence-based co-design, and implementation science. We use mixed methods data analysis to identify unmet needs that drive poor and inequitable outcomes. We work with stakeholders to identify population, geography, and issue of focus for analysis. We create frames that are appropriate to develop stories that focus the primary issue using a trauma informed lens. The openness of interpretation by participants limits bias in developing stories that will lead to actionable findings. Storytelling workshops focus on a range of artful expression including spoken and written word, photography and videography, and fiche. Boal's Theatre of the Oppressed provides the analytical framework where expert coders review stories for social and personal determinants of health that drive outcomes according to the literature. Coded data produce themes related to the risk and outcomes relationship. Themes are presented back to storytellers for confirmation. Community-confirmed results are taken to meetings with government and program leads and civil society partners to identify solutions that meet community needs. Stories are shared at a community storyslam for stakeholders to interact with storytellers. Stories are shared through social media and websites to build momentum.

Results: Through July 2024, six cohorts will have been completed involving diverse groups from across NJ. Stories from nearly 50 diverse community members have been used collected to drive change. Themes collected to-date center on missed opportunities long before an HIV diagnosis that could prevent exposure to personal and social risks that play into HIV infection risk. Depending on the service population, this takes a different form, but relates to formal and informal supports available to vulnerable people, particularly youth, that have lasting harmful or protective effects over time. Among the three cohorts that have already been completed, numerous specific policy recommendations have been made to the state department of health and relevant county public health entities. Among the recommendations is a focus on creating educational materials for teachers and police departments related to working with sexual and gender minorities. Another example includes the recommendation that the department of education collaborate with the department of health on youth empowerment activities for young black and brown girls in resource limited settings. There are additional results

beyond health system structures to share. New relationships with museums, public libraries, and other entities formed through this work. New relationships with local businesses have created new safe spaces in communities and strengthened bonds within neighborhoods. One company has committed to creating a fund to further works that government would be unable to fund.

Conclusion: Community storytelling effectively infuses community perspectives into care system evaluation to drive program enhancement through partnerships. It is possible to capitalize on the importance and popularity of storytelling to mobilize communities, tap into different perspectives, and scan for opportunities that can make a lasting impact. The use of community storytelling has been proven successful in bringing together stakeholders around a common purpose and examine collective steps to bring about an end to the HIV epidemic. According to Boal's body of work Legislative Theater multiple nations around the world are already utilizing these methods for exactly that purpose across a range of needs present in their societies.

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Association between PM2.5 exposure and incident Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD): a Cohort Study: (3390) Wei-Chun Cheng

ISQUA2024-ABS-3390

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Introduction: Metabolic dysfunction-associated steatotic liver disease (MASLD) represents a significant global health challenge, characterized by systemic inflammation and metabolic dysregulation with fat deposition in liver. Recent redefinitions of the disease [1] highlight its growing prevalence and the associated increase in morbidity and mortality [2]. While lifestyle and behavioral

factors are well-recognized contributors, emerging evidence suggests a link between MASLD and environmental factors, such as air pollution [3]. This study explores the association between particulate matter with an aerodynamic diameter $\leq 2.5 \mu\text{m}$ (PM_{2.5}) exposure and the development of MASLD within a health checkup cohort.

Methods: We conducted a cohort study including individuals who participated in health checkups from 2012 to 2015, were free of MASLD at baseline, and underwent at least one subsequent health checkup by 2017. The three-year average exposure to PM_{2.5} prior to the health checkups was evaluated. MASLD diagnosis was based on sonographic evidence of hepatic steatosis, coupled with at least one of five cardiometabolic criteria [1]. A time-dependent Cox regression model was utilized to analyze multiple health checkup data, tracking each participant until MASLD diagnosis, death, or the study's end on November 30, 2022.

Results: The study encompassed 19,464 participants without baseline MASLD. Over a median follow-up of 14.1 months, 3,220 individuals (16.5%) developed MASLD, and 580 (3.0%) died. Factors such as higher education/income levels, increased consumption of fried foods, elevated body mass index, and dyslipidemia were linked to a higher hazard for MASLD. Conversely, female gender and regular physical activity were protective factors. Notably, increased PM_{2.5} exposure was significantly associated with MASLD, exhibiting a covariates-adjusted hazard ratio of 1.009 (95% confidence interval: 1.003-1.015) per $\mu\text{g}/\text{m}^3$ increase, accounting for mortality as a competing risk. Sensitivity analysis using Fine-Gray subdistribution hazard models corroborated these findings.

Conclusion: This study identifies a significant association between three-year average PM_{2.5} exposure and the incidence of MASLD in health checkup participants. These findings underscore the importance of addressing PM_{2.5} exposure, alongside dietary and lifestyle modifications, to mitigate the global MASLD epidemic.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-1692

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Introduction: In recent times, the closure of pediatric clinics and a shortage of pediatricians have emerged as prominent concerns in the Korean healthcare system. The declining number of pediatric specialist applicants and the decreasing availability of pediatric clinics pose a substantial threat to the health of the pediatric population. This research aims to provide evidence for policy proposals tailored to pediatric clinics by determining the number of closures during the pandemic, analyzing the economic losses, and tracking the relocation patterns of pediatric specialists from closed clinics.

Methods: We analyzed health insurance claims data from the Health Insurance Review and Assessment Service to identify the status of pediatric clinic closures during the pandemic and comprehensive trends in total health insurance medical expenses for pediatric clinics from 2018 to 2022. Additionally, as of December 2022, we meticulously tracked the occupational status of representatives from closed pediatric clinics during the pandemic, aiming to determine if pediatric specialists had transitioned away from their specialties. This study received review exemption approval from the institutional review board of the Health Insurance Review and Assessment Service (2023-044-001).

Results: As of December 2019, among the 2,228 pediatric clinics in operation, the number of clinics still operational in December 2022 was 1,864, indicating that 364 clinics (16.3%) had closed. In 2020, following the declaration of the COVID-19 pandemic, total health insurance medical expenses in clinic-level medical institutions exhibited a marginal decline of 0.2% compared to the preceding year, while pediatric clinics decreased by a whopping 42%. Tracking pediatricians from closed clinics revealed that among the 364, only 59 (16.2%) had either reopened their pediatric clinics or found employment in other pediatric clinics. Of the remaining 305 people, 65 (17.9%) were estimated to be retirees, and 240 (65.9%) were employed at medical institutions other than pediatric clinics.

Conclusion: In South Korea, where the pediatric population has consistently decreased due to the impact of low birth rates, a decline in the number of pediatricians is a natural phenomenon. However, the ongoing shortage of pediatric specialist applicants and the mass closure of pediatric clinics pose a significant threat to pediatric primary healthcare, potentially exacerbating the burden on hospital-level (or higher) medical institutions. Notably, as revealed in this study, only 16.2% of pediatricians who closed their pediatric clinics re-entered the field, with most opting for retirement or pursuing alternative medical departments or other hospital types, indicating the challenges of sustaining a viable practice solely within the pediatric domain. Despite the overall decline in the pediatric patient population, there has been an increase in medical demand attributable to the rising incidence of complex chronic diseases. In South Korea's healthcare system, anchored in fee-for-service reimbursement, a sharp decline in the number of patients immediately affects doctors' income. The current system faces challenges in ensuring the sustainability of pediatric clinics while delivering high-

quality healthcare to children. This underscores the imperative to explore various incentive programs or alternative payment systems tailored to pediatrics, a discipline grappling with the impact of declining birth rates.

Disclosure of Interest: None Declared

Price determinants of medical procedures, devices, and medicine: A comparative analysis of national health insurance in five countries: (1746) Jiyoung Keum

ISQUA2024-ABS-1746

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Introduction: In 2017, Gore Medical stopped supplying artificial blood vessels for pediatric cardiac surgery, which it had been the exclusive supplier of in Korea. The media reported the low reimbursement price as one reason. There is a conflict between medical providers who want to set high prices and policymakers who want to set adequate prices for medical services since the latter have the authority to reduce non-transparent prices, proposed by medical providers. However, there is a lack of discussion about what are appropriate prices and what factors influence these prices. Consequently, this study compares medical prices worldwide and, where differences exist, determines the combined effect of causal factors. Governments can use this result to help establish policies to determine medical prices.

Methods: I surveyed the official prices of 202 procedures and 2,594 devices covered by health insurance in Korea, Japan, Taiwan, Australia, and France, as of Feb 2022. I analyzed the 37 literature on international medicine price comparison and retrieved price data from each country's Ministry of Health. Analysis of variance was performed to compare the prices. Finally, I selected the different components of the healthcare system (medical demands, resources, services, financial support for the health insurance system, public level of healthcare, and regulatory strength) which is considered when determining the price of medical care. The combination of the contributing determinants influencing medical fees was derived through fuzzy set qualitative comparative analysis.

Results: Regarding purchasing power parity, procedure fees, and medicine prices are highest in Japan, while medical device prices are highest in Australia. A significant difference was observed in the price of medical procedures and medical devices between the study countries, within the 1% significance level in ANOVA. As a result of conducting an Fs/QCA with the measured values of the level and determinants of the medical price in each country, 19 combinations of causal conditions determine high and low medical costs. Through the minimization process, the combination of causal conditions is identified as factors determining high medical prices are abundant medical resources, low demand, and poor financial support from the health insurance system; conversely, low medical prices are related to high service demand, strong regulation, and limited public health insurance.

Conclusion: Determinants of high medical prices
When resources are abundant, but medical demands and the financial support of the health insurance system are low, medical providers could offer a price higher than the original price in the process of price setting. Because revenue is “number of patients (demands) × quantity of medical services supplied × medical price” from the perspective of medical providers. In this context, policymakers who are from low-demand countries may not have a choice but to accept healthcare providers’ high prices since providers may avoid supply. Therefore, the health insurance system must increase financial support for medical services with low demand and should provide adequate incentives to prevent private healthcare providers from reducing or withdrawing supply owing to low demand. Furthermore, medical providers should not supply orphan drugs and new medical technologies according to the national demand and economic situation.

Determinants of low medical price
The increase in the amount of healthcare provided leads policymakers to implement regulations such as cost containment to curb the increase, resulting in lower medical prices. Conversely, low prices also induce medical providers to increase the number of medical services to secure their profits. Therefore, it is necessary for the system to gradually ease regulations to appropriately determine medical prices. Moreover, policies must be implemented with appropriate incentives for medical providers to improve the quality and decrease the quantity of medical services such as pay for coordination and pay for performance.

Disclosure of Interest: None Declared

Patient Safety Leadership WalkRounds™ and Patient Focused Methodology collaborate to create a culture of safety: (2375) Ke-Yung Zhuang

ISQUA2024-ABS-2375

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Introduction: We have practiced Patient Safety Leadership WalkRounds™ (PSLW) since 2021, in conjunction with managers' participation to create a safety culture and encouraged clinical numbers to participate to report all adverse events.

Although the reporting of overall adverse events has made progress over the past few years, front-line healthcare workers' (HCW) participation in the reporting of near-miss events has been unsatisfactory.

The Department of Quality Management established the PSLW 2.0 in October 2023 to improve the reporting rate of near-miss events and to re-emphasis the importance of patient safety and to enhance a safety culture.

Methods: Participants : A total of 15 units were selected, which included 455 HCWs from 11 paraclinical units, and 4 clinical wards which had the least and highest adverse-event reporting rate.

Unit managers, safety and quality officers and various key stakeholders responsible for medical quality were required to attend the interviews, whilst other HCWs were encouraged to attend.

Measure: Between January to August 2023, the adverse event reporting rate for all 15 units were collected. We also conducted pre and post PSLW surveys, which investigated the adverse-event-reporting awareness (AER) & the patient-safety culture awareness (PSC) of the unit. We assessed work norms, with a collection of subscale measures of awareness of adverse event reporting and the degree of patient-safety culture in the unit. Example question included information about what events needed reporting (*e.g., no matter the incidents have harm incidents yet, I should report the event. etc.*)" PSLW 2.0 typically lasts 1 hour, and incorporated a tracer process (*e.g., Patient Focused Methodology, PFM*), which emphasized the value of "direct observation of the clinical environment" and the "chatting" with a wide range of stakeholders including both the frontline staffs and managers.

Results: The PSLW 2.0 took place between October 20th and November 23rd 2023. There were 136 HCW who participated in the PSLW, with a 89.9 percent response rate for the adverse-event-reporting (AER) awareness survey. The most positively perceived dimensions in the AER survey were 「Hospital management will pay attention to responds and take action to address patient safety concerns」, which is at 64.3 percent. Followed by 「managers support for the reporting member when patient has an adverse event」, which is at 60 percent. The following dimensions showed significant improvement ($p<0.001$) after the PSLW2.0. These were 「have an award after the report」, 「need to implement the notification for adverse event」 and 「No harm incidents don't need reporting」. The adverse-event reporting rates also showed significant improvement from 6 % to 41% ($p<0.001$) across all the 15 participating units.

In the (PSC) survey, 「Patient Safety related events are treated fairly」 and 「patient safety is a top priority, manager, or clinical Leader support for Patient Safety」 showed statistically significant improvement ($p<0.001$) for all score domains between the pre & post PSLW2.0 surveys.

During the PSLW 2.0, we identified 46 problems, of which 21 of them related to patient safety, such as "how to use patient safety report", "patient safety report system is not friendly" and "what incident needs reporting" to which solutions were facilitated.

Conclusion: At Taipei Medical University Hospital, we combined WalkRounds with PFM in PSLW 2.0. We demonstrated that through this method, the adverse-event reporting rate and the patient-safety related awareness were improved in all the participating units. Positive response from frontline workers was also obtained via the facilitated resolutions of important clinical problems which further enhanced mutual trust across clinical units in our hospital.

Disclosure of Interest: None Declared

“Working with babies brings me a lot of joy – also brings me routine, money and stability” Keeping paediatric nurses in nursing: (1322) Laurel Mimmo

ISQUA2024-ABS-1322

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Introduction: Retaining skilled nurses is an urgent global priority. Little is known of the specific issues facing the retention of paediatric nurses – a highly specialised workforce. While the COVID-19 pandemic did not impact the paediatric population as much as the adult population, the effect of public health strategies to mitigate the spread of COVID-19 exposed children and family members isolated in their homes to situations that were unfathomable to paediatric medical and nursing staff. Attempting to meet these demands pushed clinical teams to their emotional limits and sometimes beyond.

Paediatric healthcare professionals reported higher disengagement, exhaustion, and burnout than colleagues caring for adult patients. A perceived increase in patient volume and acuity resulted in experienced staff resigning, requesting shorter work hours, and moving to casual work.

Replacement of staff has been through the recruitment of new graduates, who, in turn, have struggled with a slow transition to independence and in adapting to the realities of shift work. This is due to disrupted undergraduate education and disadvantageous clinical experiences; clinical placement sites could not accommodate student experiences due to the restrictions of the pandemic. New Graduates are further disadvantaged by the concurrent resignation of experienced staff and decreased access to support from clinical nurse educators who are regularly deployed back to the bedside to fill the shift numbers. This study explored the challenges of retaining paediatric nurses across four tertiary paediatric settings in 2023.

Methods: Eight focus groups supplemented a cross-sectional survey of paediatric nurses to identify: (i) factors that influence their decision to stay in or leave the nursing profession, (ii) specific long- and short-term strategies that inspire nurses to stay in the profession and build their nursing careers. The survey and free text incorporated qualitative and quantitative elements to capture demographics and favourable and challenging aspects of current roles. A validated instrument measured exhaustion and fatigue, augmented by proposed incentives to stay. Ethics approval was obtained.

Results: 217 nurses completed the survey, and 32 participated in focus groups. 91% of survey respondents scored above the criteria for burnout – mostly from high exhaustion scores, with average for bedside nurses (43) scoring higher than managers (36), educators (38) and advanced practice nurses (40). 63% of respondents considered or had applied for another position within the past 6 months – 34% in a profession outside nursing.

Paediatric nurses valued working with their colleagues (31%), caring for children and families (24%), the paediatric environment (24%), financial security (15%) and professional opportunities (6%). There

was a range of experiences between and within professional groups, while priorities for retention varied between professional groups. Levels of exhaustion, fatigue and impact on work-life balance within this speciality were exacerbated by challenges of workload; patient volume and acuity; lack of senior staff, skill mix, staff shortages; demanding, abusive family members; inability to take leave, meal breaks, leave replacement; travelling time; and inflexible rosters.

Conclusion: Nurses caring for children in tertiary paediatric settings appreciate their specialised roles and enjoy working with children and families. They find teamwork, professional opportunities, support of managers, flexibility, and stability of work as incentives to remain. Conversely, nurses' quality of work is diminished when they do not feel respected, valued or appreciated and by perceptions that management and leadership are not listening to their concerns but focused on financial concerns and meeting the budget.

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Disclosure of Interest: None Declared

Changing 'the way we do things around here': Improving organisational culture for staff and residents in residential aged care: (2270) Maree Saba

ISQUA2024-ABS-2270

K. Churrua^{1,*}, L. Ellis¹, M. Saba¹, J. Braithwaite¹. ¹Macquarie University, Sydney, Australia

Introduction: Over the past decade, Australia's aged care sector has encountered challenges related to an aging population with a high burden of disease, workforce retention, numerous public inquiries into care quality and safety, and the COVID-19 pandemic further exacerbating staff exhaustion and

burnout. International research suggests a positive organisational culture may be protective against staff burnout; having a good culture is associated with higher quality care, and residents' experiencing more positive care experiences and better health outcomes.^{1,2} In this presentation, we describe findings from our research program examining organisational culture in residential aged care facilities (RACFs), to understand the association of culture with contextual factors and workforce, safety and quality outcomes; and how organisational culture can be improved for the benefit of staff and residents.

Methods: We present findings from: an integrative review of 92 studies on organisational culture in RACFs;³ a policy analysis of the final report of the Royal Commission into Aged Care Quality and Safety;⁴ and our ongoing mixed method study in 62 RACFs. Our study includes a longitudinal organisational culture survey, ethnographic fieldwork, and an effectiveness-implementation evaluation of an intervention to address unprofessional staff behaviour and improve culture.

Results: Eleven studies in our review looked at culture in relation to staff outcomes (job satisfaction, organisational commitment) in RACFs. Studies (n=15) looking at clinical governance and care processes also found an association with the organisational culture of the RACF; however, among studies looking at the relationship between culture and clinical outcomes (n=9), results were more equivocal. The empirical evidence for culture change interventions (n=5) was generally limited and of low quality. In our analysis of the Australia's enquiry into the quality of care (the Royal Commission report), culture was frequently (n=42) highlighted as a problem in RACFs and aspirational qualities for culture were proposed (n=28). However little guidance was provided on how culture could be improved. We discuss how these findings have informed the development of our organisational culture survey for aged care and present findings from its first round, including associations between cultural dimensions (e.g., teamwork, leadership, person-centred care), staff outcomes (burnout, intention to leave), quality indicators, and resident wellbeing. We also consider the existing evidence base for the culture change program and results of the formative research into its implementation.

Conclusion: Despite recognition of the importance of organisational culture in aged care among policymakers and academics, our research highlights numerous gaps in understanding and improving culture. Our longitudinal research aims to address some of these limitations, so that we can better leverage positive organisational cultures, realising their impacts in a more engaged, stable workforce and higher wellbeing among residents.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-2159

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Introduction: Resilient healthcare represents a transformative shift in healthcare systems, emphasising their capacity to adapt their functioning and sustain high-quality care despite expected or unexpected challenges or conditions.¹ This concept has gained prominence over the past decade. It diverges from traditional safety paradigms by equally valuing the analysis of successes alongside errors. This study identified how variability and changes within teams, organisations, and national healthcare systems enable or hinder the adaptive capacity of hospital teams within two Australian hospitals.

Methods: We employed a comparative case study design focusing on teams in one public and one private hospital, examining the hindrances and enablers influencing team adaptive capacity. There were four teams from each hospital: structural (ward-based team whose members comprise different disciplines), hybrid (comprised of permanent and rotating members), responsive (react to time-limited emergencies), and coordinating (facilitate workflow across organisational units). Data collection occurred from March to November 2023. Observations and semi-structured interviews were conducted. Data were analysed utilising a combination of inductive and deductive coding according to the Concepts for Applying Resilience Engineering (CARE) model² and Hollnagel's framework of resilience potentials.³

Results: Several significant factors were identified as enabling or hindering adaptive capacity, including: 1) technology and resources; 2) roles, procedures, and work; 3) staff competence and knowledge; and 4) team culture and relational factors. Access to *technology and resources* was essential for optimising efficiency across both hospitals, and important for monitoring patients and optimising organisational processes. Technologized trolleys used by structural teams, paging systems by responsive and hybrid teams, and electronic patient management applications by coordinating teams underscored the importance of resource availability. Well-defined *roles and procedures* supported teams. Structures that promoted adaptive capacity included: daily huddles by the hybrid and coordinating teams, and strategic two-member teamwork in structural and responsive teams. *Staff competence and knowledge* emerged as important aspects of a team's capacity to adequately adapt to challenges. Common knowledge of pressures amongst experienced staff allowed for sufficient preparation. The need to upskill staff was particularly evident in the hybrid and responsive teams. *Team culture* was established as fundamental for adaptive capacity. Observations revealed that team members of all team types actively supported each other. Additionally, internal support systems fostered relational factors and promoted overall wellbeing within teams.

Conclusion: This study contributes insights into how team skills, organisational and system factors hinder or enable adaptive capacity within hospital teams of two Australian hospitals. The four identified factors contribute to an understanding of how to enhance the capacity of hospital teams and explores how macro-level and meso-level structures can effectively reinforce adaptive capacity.

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Disclosure of Interest: None Declared

Implementation experiences of providing care coordination for children with medical complexity in rural Australia: (2619) Raghu Lingam

ISQUA2024-ABS-2619

K. A. Hutchinson^{1,*}, R. Lingam², H. Smithers-Sheedy², Y. Zurynski¹ and Rural Kids Guided Personalised Service (RuralKidsGPS) Investigator Group

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Introduction: Limited care coordination and planning for children living with medical complexity (CMC) leads to missed and duplicated care, increasing costs for the health system and families compounded by living rurally, necessitating enhanced local solutions. The Rural Kids Guided Personalised Service (RuralKidsGPS)¹ is an integrated model of care coordination implemented in four rural local health districts across New South Wales, Australia and modelled on the KidsGPS program in tertiary children's hospitals in Sydney. RuralKidsGPS aims to smooth pathways through healthcare by connecting CMC to local health services, coordinating care and care teams, and building families' capacity for self-management. This study aims to explore barriers and enablers to implementation by analysing the experiences of staff delivering and supporting RuralKidsGPS, to inform future implementation and contextual adaption plans for scaling the model across diverse health settings.

Methods: The implementation evaluation is informed by qualitative methods using semi-structured interviews with nurse coordinators (n=11), healthcare professionals (n=13), health managers (n=8) and researchers (n=6). Underpinned by the Consolidated Framework for Implementation Research (CFIR), a hybrid deductive/inductive approach to a thematic analysis was conducted to identify barriers and facilitators as experienced by staff involved in delivering and implementation of RuralKidsGPS.

Results: The key emergent themes emphasise the significance of **local context, efficient workflow processes, strong leadership, and appropriate resources** as fundamental to acceptability, implementation, and sustainable delivery of RuralKidsGPS. The central role of the care coordinators was '*building clinical relationships around the family*' to optimise care quality, experiences, and equity of access for families with CMC. The care coordinator's resourcefulness, local knowledge, and ability to leverage local resources and networks within health, social care, and disability systems, enabled

delivery of family-centred care across diverse socio-economic and cultural backgrounds. However, the timely implementation and delivery of RuralKidsGPS care coordination has been impacted by limited sharing of healthcare information across jurisdictions, natural disasters (widespread floods) and workforce changes and shortages. Invaluable support and leadership from local healthcare managers and professionals, enabled nurse coordinators to adapt and implement RuralKidsGPS to fit within their local context. Delivery of the model was hampered by limited service resourcing causing concerns about managing service demand with high levels of psychosocial and medical complexity among children and families, and geographical location which contributed to professional isolation among coordinators. Therefore, ensuring adequate service resourcing and professional connectivity, streamlining workflows, and empowering families to navigate healthcare were significant challenges, whilst recognising that these factors are crucial for model adoption and sustainability.

Conclusion: Findings emphasise the significance of pre implementation planning and adapting integrated models of care to local contexts, and the importance of building co-designed pathways and processes, strong support networks, and trusting relationships to enable team-based interdisciplinary care coordination for CMC. Building capacity of families to navigate complex healthcare systems and to enable self-management where possible, are crucial for managing demand on RuralKidsGPS and its sustainability.

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Disclosure of Interest: None Declared

Psychosocial complexity and limited preparation for transition to adult services for young people living with type-1 diabetes results in care fragmentation: A multi-method study: (2270) Yvonne Zurynski

ISQUA2024-ABS-2270

K. Churrua ^{1,*}, L. Ellis ¹, M. Saba ¹, J. Braithwaite ¹

¹Macquarie University, Sydney, Australia

Introduction: Over the past decade, Australia's aged care sector has encountered challenges related to an aging population with a high burden of disease, workforce retention, numerous public inquiries into care quality and safety, and the COVID-19 pandemic further exacerbating staff exhaustion and burnout. International research suggests a positive organisational culture may be protective against staff burnout; having a good culture is associated with higher quality care, and residents' experiencing more positive care experiences and better health outcomes.^{1,2} In this presentation, we describe findings from our research program examining organisational culture in residential aged care facilities

(RACFs), to understand the association of culture with contextual factors and workforce, safety and quality outcomes; and how organisational culture can be improved for the benefit of staff and residents.

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Disclosure of Interest: None Declared

Lunchtime

Lightning Talks

Turning data into safety: A data-driven approach to mitigating risks for aging adults with type 2 diabetes: (2954) Amy Nguyen

ISQUA2024-ABS-2954

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Introduction: The rising prevalence of type 2 diabetes among aging populations intensifies the need for safe and independent home living. However, progressive functional decline associated with the condition elevates fall risks and hinders activities like medication management and navigation. While self-management digital interventions exist, limited research explores the home environment's impact on safety and independence. This study leverages data from real-world home environments of individuals with type 2 diabetes to identify environmental challenges posed by physical layout, furniture arrangement, lighting, and clutter. Through this study, we aim to mitigate hazards before they arise by anticipating future decline in vision, cognition, and mobility associated with type 2 diabetes.

Methods: We aim to analyze a unique dataset of $\approx 5,000$ images per patient captured by body-worn cameras worn by 26 elderly individuals with type 2 diabetes (1). Drawing on established activity classifications (2), manual coding of the images allow us to identify various aspects, including health management activities like diet, exercise, and medication interactions; technological interactions involving smartphones and health monitoring devices and environmental context, assessed using a validated tool (3), encompassing lighting and furniture organization etc. By anticipating potential functional, physical, and cognitive limitations, we will identify areas where future decline might pose greatest challenges. Finally, by combining insights from all these aspects, targeted recommendations for optimization will be formulated through digital interventions and environmental modifications aiming to improve safety and independence for this population. The study received ethical approval from the Macquarie University Human Research Ethics Committee (reference number: 52023558051768).

Results: Preliminary analysis of four patients (n=22 images) revealed recurring environmental hazards such as clutter and inadequate lighting. Additionally, potential impacts of functional decline such as visual, fine motor skill, cognitive and mobility challenges due to accessibility and navigational barriers, falls/ trips risk, etc. were also identified.

Conclusion: Through image analysis, risks associated with mobility, cognition, and daily activities arising from potential health decline were identified. These risks can be mitigated by using proactive solutions, combining smart technology interventions and accessible environment modifications, to empower safer, independent living. This holistic approach could not only enhance individual well-being but also potentially reduce reliance on assisted living facilities, contributing to a more sustainable and cost-effective healthcare ecosystem.

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Disclosure of Interest: None Declared

Privacy as a Ruse? Reframing legal and ethical challenges to improve engagement with quality improvement using health data: (3278) Kavisha Shah

ISQUA2024-ABS-3278

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Introduction: Health professionals are increasingly expected to use health data for quality improvement as data systems become more sophisticated. While this expectation is codified in professional codes of conduct and clinical governance standards, there are no existing guidelines or frameworks to determine how health data should be used for performance management. This approach has been met with growing concerns about medico-legal risks (i.e., disclosure) and ethical issues (i.e., transparency) as health professionals and organisations worry about unjustifiable harm to their reputation. The objective of this project is to understand the perspective of key stakeholders towards implementation of evidence-based improvements from an ethical and legal lens.

Methods: Semi-structured qualitative interviews with health professionals, administrators and representatives from professional associations and regulatory bodies. Interviews were transcribed and analysed thematically using a predominantly inductive approach to create codes then themes. Deductive reasoning was applied to the open-ended codes to ensure themes were appropriate and meaningful to project objectives ([1](#)). Two reviewers coded the first three transcripts line-by-line and then grouped into themes, with any disagreements discussed until consensus was reached. Themes were iteratively updated as new codes or themes emerged among the remaining transcripts. Ethics approval received from the University of Sydney Human Research Ethics Committee.

Results: Twelve qualitative interviews have been conducted to date. Preliminary analysis reveals health professionals are overwhelmingly worried about performance data being used punitively against competent health professionals. Both reasonableness and proportionality emerged as desirable principle-based constraints on performance management to minimise the risk of punitive disciplinary measures but neither appear to be enforced. Privacy and disclosure were also repeatedly

highlighted as a concern due to the implications of public reporting on the psychological safety of health professionals. To this effect, health administrators emphasised the importance of establishing an open dialogue and creating a culture of learning within the organisation to model reflexive practices.

Conclusion: Recent findings suggest healthcare as an industry has struggled to address legal and ethical challenges around the use of health data for quality improvement due to the limited guidance available to key stakeholders. Key guidance includes robust operational governance, interpersonal support, and effective controls on administrative decision-making. Systems that lack these features have witnessed limited engagement with performance data and, at times, professional unwillingness to meaningfully observe mandates. The conceptualisation of privacy and disclosure as barriers, for example, does not reflect the true scope of privacy legislation which anticipates use of data for this purpose. Beyond citing the name of the applicable legislation, no interviewee could explain how the law impedes use of health data for performance management. This misconception illustrates that leaders have few resources to drive change through evidence-based performance management, and knowledge gaps in clinical ethics and medico-legal risks continue to act as illusory barriers to sustaining use of quality improvement initiatives.

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Disclosure of Interest: None Declared

Advancing Patient Safety and Quality Education for a Sustainable Future: (2494) Mabel Sim

ISQUA2024-ABS-2494

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Introduction: In the ever-evolving landscape of healthcare, the pursuit of excellence in patient safety and quality (PSQ) remains a paramount goal. The achievement of these goals requires continuous learning and a capable PSQ workforce. This abstract explores how SingHealth Duke-NUS Institute for Patient Safety & Quality (IPSQ) advance its PSQ education through development of modular graduate programs, to build a sustainable pipeline of leaders and expertise for the Asia Pacific region.

Methods: The methods involved both assessing learning needs (LNA) and design an applied learning curriculum. The LNA helped to identify gaps in knowledge, skill deficiencies, competency evaluation, job role relevance, and staying current with trends in PSQ. It revealed significant needs for a structured program covering PSQ topics that are in line with current trends and confirmed the absence of a similar program in Southeast Asia. Recognizing the need to address the gaps in PSQ education, the decision was to develop formal education programs to foster academic and professional exchanges with shared learning opportunities.

The design of the applied learning curriculum is a collaborative effort with strong support from healthcare leaders and domain experts. The graduate programs offer flexible learning through stackable modular approach and smart classroom, providing global education and experiential learning, engaging regional and global participants and faculty with relevant Asia Pacific case studies. Key elements include self-directed learning, leadership education and interprofessional learning, integrated through effective pedagogy. The curriculum development began by reviewing existing materials, including course outlines, syllabi, and learning resources, assessing integration into academic programs and transformative learning. Subsequently, healthcare leaders and domain experts designed the curriculum, integrating contemporary teaching methodologies, innovative technologies, regional case studies, and practical scenarios to make learning pertinent and enhance critical thinking and problem-solving skills among healthcare professionals.

Results: The collaborative effort resulted in the co-creation of a comprehensive range of academic programs, including a Graduate Certificate, Graduate Diploma, and Master's degree in Patient Safety and Healthcare Quality. These programs received endorsement from esteemed academic partners, Duke-NUS Medical School and the National University of Singapore.

The oversight of the programs is effectively supported by a dedicated team of 7 distinguished senior healthcare leaders, and more than 20 domain experts, all possessing extensive experience and knowledge in the field.

The inaugural cohort was successfully launched in August 2024 with 28 enrolled inter-professionals from different healthcare organisations. The cohort comprised of 9 doctors, 9 nurses, 3 allied health professionals and 7 healthcare administrators. The feedback from the inaugural cohort was positive:

1. 100% of respondents (26 out of 26) agreed they have **acquired new skills and/or knowledge** from the programme.
2. 92.3% of respondents (24 out of 26) rated they can **apply what they learnt** in the programme in their work.

Image:



Conclusion: The evolution of the PSQ program from 20 standalone continuing education programs to a comprehensive academic model aligns to the Strategic Objective 5 - Health worker education, skills and safety of World Health Organization Global Patient Safety Action Plan 2021 - 2030. It supports patient safety within health professional postgraduate education and continuing PSQ development, with an emphasis on interprofessional learning to establish a robust education framework for a sustainable future in PSQ.

Disclosure of Interest: None Declared

Root Cause Analysis and strategies to implementing actions based on lessons learned from sentinel events: (3388) Mayara Santos

ISQUA2024-ABS-3388

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Introduction: It is one of the stages of Root Cause Analysis (RCA), designing and implementing an action plan based on lessons learned from an event being necessary to create a system that is able to adapt to shifting and unexpected conditions without a reduction in quality of care . Work developed in the Department of Patient Safety in a Brazilian Hospital, aiming at achieving high reliability

Methods: Aiming to improve the action design and implementation stage, we will deal with the strategy from the implementation of the Action Center with time dedicated to improving processes. This retrospective, non-randomized implementation study evaluated the impact of an “Action Center”. Being a quality improvement project and not a research study, this project did not request approvals from the Institutional Research Board. The management method was implemented using quality improvement techniques (Plan-Do-Study-Act (PDSA) cycles). The researchers evaluated the impact of

implementing the center from January to October 2022. To classify sentinel events, we used the Conceptual Structure of the International Classification for Patient Safety – WHO, 2009 adapted with an internal nomenclature where we identified the main critics of the events and subsequently designed the actions.

Results: Problem an Assessment of problem and analysis of its causes:

From January to October 2022, 8,385 events were reported, being categorized according Joint Commission standard in 3,886 without damage, 2,556 near miss, 1,238 mild, 651 moderate, 16 severe and 08 catastrophic. Severe and catastrophic events are classified by [Conceptual Framework for the International Classification for Patient Safety – WHO, 2009](#) (figure 1 - The framework presents the type of events, process, problems based on the WHO and its details according to the internal nomenclature. In addition, we present a summary of the main actions in progress).

Considering the sentinel events analyzed, we identified the as root causes, arranged in an Ishikawa diagram: 9 Assessment care, 3 Human Factors, 3 Environmental ,3 Care planning, 2 Continuity of care, 2 Rules/Policies/Procedures, 1 Care, 1 Communication and 1 Special Interventions.

Intervention and Strategy for change:

28 meetings were held with the leaders and professionals involved with the aim of discussing the case and sharing the lessons learned, generating an average of 42 hours of brainstorming for improvements, involving 110 professionals, 23 of them leaders, forming work teams with an average of 4 professionals.

186 actions were prepared, an average of 7.75 actions per sentinel event, of which 84 were intermediate, 55 stronger and 47 weak. From this, the management process for implementation begins, being carried out as follows: periodic meetings with an interval of 15 days after the first RCA meeting, with the objective of checking the status of immediate actions and planning the steps for implementing actions by through the 5W and 3H tool adapted in a software.

Biweekly meetings are held to check the status of the KANBAN method, where we observe whether actions that have any impediments or barriers are removed and offered support. Some measures were also tested prior to implementation and presented for feedback to patient committees

Measurement of improvement and Effects of changes:

All actions are managed in monitoring software, allowing you to see the status in real time and in a decentralized way. A report is sent monthly to CEO, informing the progress of actions based on the number of actions completed per plan. Of the 186 actions, 46% are completed, 35% are in progress and 19% are overdue. Of the completed actions, the average time for implementation was 109 days. When we look at the progress from a classification perspective, we have: 60% of the weak actions completed, 46% of the intermediate ones and 33% of the strong ones, with an average execution time of 95, 106 and 150 days respectively.

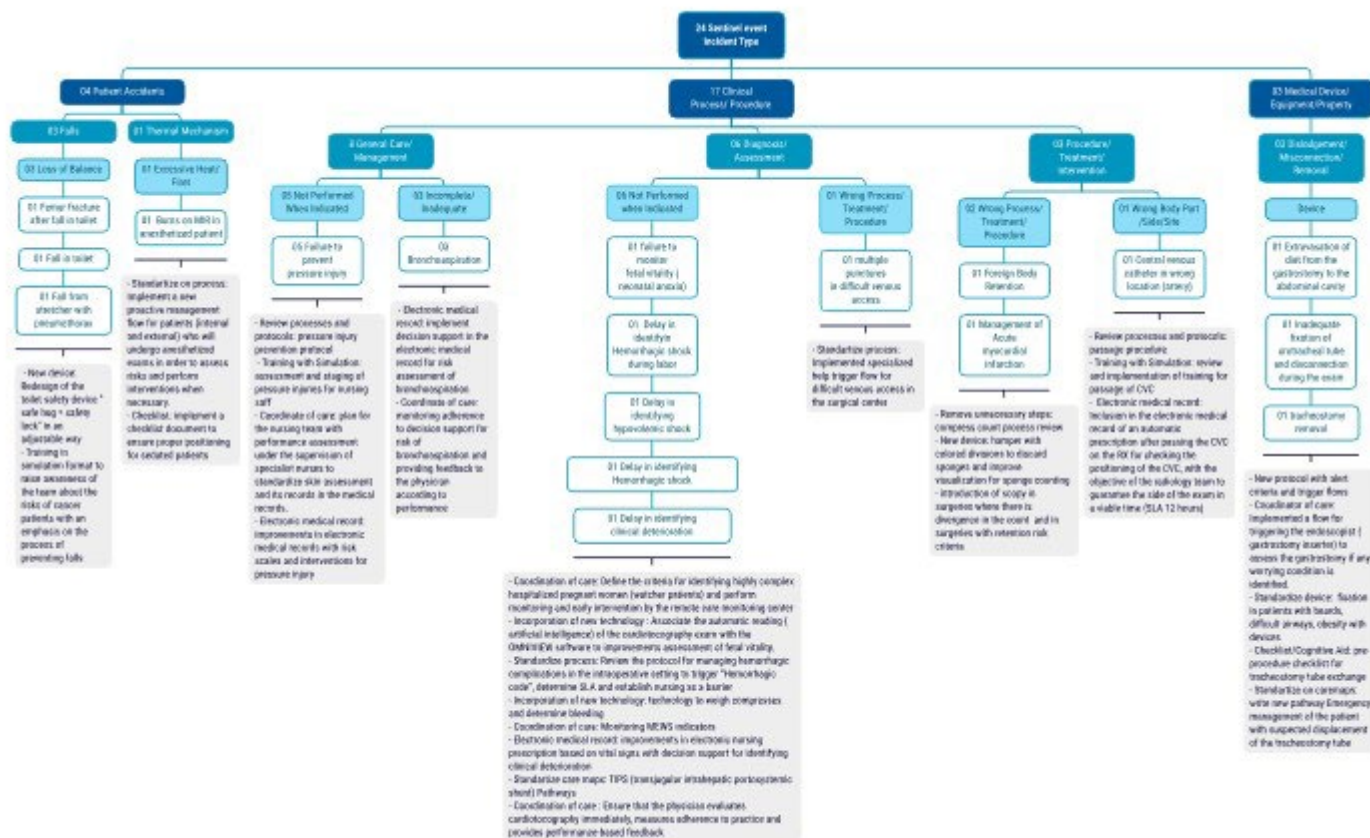
There was a 25% decrease in events that cannot be exclusively associated with o núcleo de ações implementations, but we believe this is a reflection of better management by the teams implementing changes.

We measured the improvements after implementing the core:

	Pre Action center (jan a octo/2021)	Post Action center (jan a octo/2022)
No. of sentinel events	32	24
Nº of actions	153	186
Action elaboration strategy	Leadership-centric actions and security staff without protected time	Protected time for the deployment of the action plan together with the executing teams and leaders
Information management	Excel spreadsheet centralized in the security team	Software that allows sharing with the executing team
Dashboard Access	centralized	decentralized
Report to board	without	with
Average execution time of actions in days	113	109
% actions delivered on time	14%	94%

There was an 80% increase in actions broken within the planned period, with emphasis on the actions highlighted in figure 1.

Image:



Conclusion: Bring about change, involve professionals and patient committees, having robust monitoring and management systems are key steps to guarantee the implementation of the proposals arising from the RCA. This work has the challenge of measuring changes through indicators in order to identify the recurrence of similar events after strong actions implementation, which require time, investment and technologies incorporation.

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Disclosure of Interest: None Declared

**The impact of nurse outcomes on nurse-perceived patient outcomes in South African hospitals:
(3189) Alwiena J. Blignaut**

ISQUA2024-ABS-3189

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Introduction: Patient safety and quality of care remain global top healthcare priorities (WHO, 2022). Although nurses are often implicated for lapses in patient safety and quality of care (Vaismoradi *et al.*, 2020), their general wellbeing, including physical, mental, and emotional health, is often not considered in affecting these patient outcomes (Assaye *et al.*, 2022). As nurses' perceptions give valuable insights into the general performance of their institutions of employment (Tvedt *et al.*, 2014), their perceptions on patient safety and quality of care as correlated with nurse outcomes (such as physical and mental health, emotional exhaustion, job satisfaction and intention to leave), will provide a way forward in supporting both nurse- and patient wellbeing. To determine the relationship between nurse outcomes and nurse-perceived patient outcomes.

Methods: A cross-sectional survey was completed by 2260 nurses from four private hospital groups, and 2294 nurses across all levels of public hospitals. Measures included intent to leave, job satisfaction, and compassion fatigue questions, the Maslow Burnout Inventory Emotional Exhaustion subscale, the PROMIS10 Global Health Survey, an overall grade on patient safety and quality of care and adverse events reporting.

Results: Most nurses suffered from physical- and mental health symptoms (n=3074, 88.1% and n=2703, 75.8% respectively). 43.9% (n=1673) of nurses suffered from emotional exhaustion and almost a third reported job dissatisfaction (n=1325, 32.1%). Nurses were most dissatisfied with their salary/wages (n=2785, 68.2%) and appreciation (n=2682, 66.2%). One quarter of nurses (n=1078, 25.6%) intended to leave their jobs, while a quarter of these intended to leave nursing as career (n=302, 24.5%). All negative nurse outcomes were experienced more severely by public healthcare nurses than by private healthcare nurses with global physical health, global mental health, emotional exhaustion, and job dissatisfaction differing more than ten percent between sectors. 13.1% (n=483) of nurses felt patient safety in their units were poor or failing, while 5.6% (n=206) reported quality of care as poor. Private hospital nurses reported higher patient safety and quality of care grades than public hospital nurses (Cramer's $V=0.251$; $p=0.000$ and Cramer's $V=0.196$; $p=0.000$ respectively). Adverse events were reported by more than 80% of nurses to occur never or only a few times a year. Global physical health was correlated significantly with overall patient safety (OR=4.0, 95%CI=3.0-5.4), overall quality of care (OR=3.7, 95%CI=2.6-5.2) and confidence in post-discharge care (OR=3.6, 95%CI=2.8-4.7). Global mental health correlated significantly with overall quality of care (OR=3.3, 95%CI=2.5-4.3). Emotional exhaustion significantly impacted perceptions on overall patient safety (OR=3.4, 95%CI=3.0-3.8) and overall quality of care (OR=3.6, 95%CI=3.0-4.3). Job satisfaction correlated significantly with overall quality of care (OR=3.5, 95%CI=3.0-4.2).

Conclusion: Wellness strategies aimed at nurses' physical-, mental- and emotional wellness is of paramount importance in preventing a mass exodus from the nursing profession as well as prioritizing patient safety and quality of care. Addressing nurses' job satisfaction by attending to their need for

appreciation, might be an easy and effective strategy in mitigating both negative nurse and patient outcomes. Interventions aimed at alleviating negative nurse outcomes might inadvertently also mitigate negative patient outcomes.

Disclosure of Interest: None Declared

Relation Between The Implementation Of International Patient Safety Goals (IPSG) And Patient Satisfaction At The Persahabatan Centre General Hospital: (2760) Endah Nurohmah

ISQUA2024-ABS-2760

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Introduction: Implementation of the International Patient Safety Goals (IPSG) at the Persahabatan General Hospital (RSUP Persahabatan) reflects the commitment to safe and quality health services. The aim of this implementation-program is to improve the patient's safety level through 6 steps of safety-goals. This research will explore the relationship between the implementation-program and the level of patient-satisfaction Persahabatan Central General Hospital

Methods: This is quantitative research with descriptive analytics using a cross sectional study approach. The research was conducted through direct observation on IPSG implementation-program on the questionnaires of patient satisfaction that have been validated, using purposive sampling techniques in accordance with inclusion and exclusion criteria to obtain a sample of 68 people. Statistical analysis, including descriptive and correlation analysis, was carried out to provide an overview of the characteristics and to evaluate the relationship between IPSG implementation-program and patient satisfaction. The questionnaire consists of 3 parts. Questionnaire A (demographic characteristics questionnaire) consists of initial, age, gender, occupation and patient treatment room. Patients as respondents will answer questions according to the question column provided. Questionnaire B (questionnaire on patient perceptions on safety implementation) consists of 21 questions that have been adapted to IPSG standards by selecting 1 of the 4 prepared statements, never, rarely, often, and always. Questionnaire C (assessing the level of patient satisfaction in the dimensions of tangible (real evidence), reliability, responsibility (responsiveness), assurance (guarantee) and empathy. Consists of 23 questions using Likert scale, very satisfied, satisfied, dissatisfied, very dissatisfied.

Results: Correlation analysis shows a significant relationship between IPSG implementation-program and patient satisfaction (p-value=0.000, p <0.005). Survey on the patient satisfaction showed that 85.3% of respondents expressed satisfaction with the service, while 14.7% expressed dissatisfaction. In this study, only few patients (2 out of 68) expressed dissatisfaction with the health-services when patient-safety program is implemented. In contrast, there was a significant increase in the number of dissatisfied patients (7 out of 9) when patient-safety implementation program is not

implemented. These findings show that the level of patient satisfaction is statistically influenced by the level of IPSG implementation. In other words, the implementation of patient safety standards, as regulated by IPSG, has a positive impact on patient perception and satisfaction at Persahabatan Central General Hospital.

Conclusion: The level of IPSG implementation-program at Persahabatan Central General Hospital has a positive correlation with the level of patient satisfaction. The result shows that increasing the implementation of IPSG can contribute positively to improve patient satisfaction in the context of health-care service. The finding emphasizes the importance of implementing patient safety standards in improving patient's experience and service quality in hospitals.

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Disclosure of Interest: None Declared

Validating rates of nursing-sensitive adverse events in administrative healthcare data in Ireland: A retrospective chart review study: (2557) Anna Connolly

ISQUA2024-ABS-2557

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Introduction: In-hospital adverse events (AEs) present an ongoing patient safety challenge for health systems. They are disproportionately experienced by older adults given the higher prevalence of co-morbidities and emergency admissions in patients aged over 65 and the complexity of their care. Pneumonia, urinary tract infections, pressure ulcers and delirium, known collectively as failure to maintain (F2M) events, commonly occur in older patients when the demand for nursing care exceeds supply. Accurate monitoring and measurement of AEs is key to improving patient safety and healthcare quality and reducing the economic and human cost of these events. Hospital in-patient enquiry (HIPE) data, Ireland's primary source of clinical, administrative, and demographic data on hospital discharges, is used to inform the planning, provision and measurement of acute hospital services therefore, it is essential that this data accurately represents a patient's encounter with the healthcare system. Retrospective chart reviews are often used to validate administrative healthcare data as medical charts are often considered a gold standard source of patient information.

Objectives

To determine prevalence of F2M events in older adults in Ireland.

To quantify the rates of F2M events in HIPE data in one model 4 hospital in Ireland.

To validate F2M event rates by comparing the chart review findings to the HIPE data.

Methods: A total of 1000 randomly selected admissions of inpatients aged over 65 from a model 4 hospital in Ireland in 2022 were reviewed using a two-stage retrospective chart review. Using a co-productive approach, the researchers collaborated with healthcare professionals and patient representatives to design and develop a data collection instrument and structured protocol to guide the chart review. Each chart underwent a primary review to identify admissions containing evidence of F2M events. A secondary review was conducted on these admissions to confirm the presence of the AEs and gather further information for costing these AEs in future research as part of this project. The chart review was conducted blindly, and the researchers were not exposed to the quantified rates of AEs in the HIPE data until after the chart review had been completed.

Results: The prevalence of F2M events in older adults in Ireland in one model 4 hospital have been investigated. Based on preliminary findings from the 726 admissions reviewed to date, 172 (24%) of the admissions were identified through the primary review as having experienced at least one AE. These admissions then underwent a secondary review, through which 270 AEs were identified by the reviewers. The secondary review identified 69 cases of pneumonia, 36 UTIs, 93 pressure sores and 72 cases of delirium.

Conclusion: The rates of AEs identified through the retrospective chart review in this study are in line with findings from previous studies that explored the rates of AEs through two-stage retrospective chart reviews. The provisional findings from this study will inform the next phase of this research by providing a baseline for which the rates of AEs identified in the HIPE data will be validated against. This will make visible the true rates of these AEs and may allow for improvements in the accuracy of this data. Accurate data will facilitate benchmarking of AE rates across hospitals and countries and provide an opportunity for improvements in patient safety and healthcare quality.

Disclosure of Interest: None Declared

Reducing Vascular Complications via Femoral Artery Approach for Post Elective Procedure in Improving Patient Safety: (1943) Arni Azura Abd Karim

ISQUA2024-ABS-1943

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Introduction: Cardiac catheterization and percutaneous intervention can result in problems at the vascular access site. In the Invasive Cardiovascular Laboratory (ICL), vascular access-site problems via the femoral route can result in severe morbidity and mortality. To maintain patient safety and effectiveness, clinical management has set a goal of reducing femoral artery vascular complications to less than 3% in post-elective patients.

Methods: In this project, the Plan-Do-Study-Act (PDSA) method was applied. Vascular problems in the femoral artery have been observed to range between 2% and 4% in patients having diagnostic and interventional procedures from January to March 2019 (a pilot study). Significant causes for femoral complications will be recorded, including numerous punctures, failed closure devices, obesity, high blood pressure, dialysis patients, and others. There are inclusion and

exclusion criteria measured that exclude Primary or Emergent Percutaneous Coronary Intervention (PCI) procedures, Electrophysiology (EP), and Right and Left Heart Catheterization procedures, and the vascular complication was resolved in 6 hours.

Results: Since the start of the trial study in 2019, femoral artery complications have steadily decreased. Continual improvements are being made for femoral artery complications. These are the initiatives:

1. Reinforce ICL Team to raise Vascular Complication Form if there is any vascular complication occurred.
2. Ward round by ICL Nurses after all procedures are completed
3. Established ICL Vascular Complication Task Force Team
4. Femoral artery puncture under fluoroscopy guidance by primary team
5. For difficult case to puncture under peripheral ultrasound
6. Policy review on sheath removal by primary team.

Conclusion: Continuous monitoring by the primary team and the ICL team is vital for reducing femoral artery complications. Patient involvement plays an essential role in understanding the causes of femoral artery complications and developing prevention interventions. The engagement of all stakeholders fostered a cultural shift, confirming the view that vascular complications are everyone's business.

Disclosure of Interest: None Declared

Improving malaria case management quality by reducing irrational use of antimalarials - A systems thinking approach in four southern states (Akwa Ibom, Cross River, Ebonyi, and Oyo) in Nigeria: (2540) Augustine Firima

ISQUA2024-ABS-2540

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Introduction: Nigeria has the highest global burden of malaria accounting for 27% and 31% of global malaria cases and deaths respectively in 2022. Accurate diagnosis and treatment are essential for effective malaria control, reducing presumptive treatment and irrational use of antimalarial medicines. However, non-adherence to the national malaria diagnosis and treatment guidelines, non-availability of malaria commodities, and poor-quality reporting continue to affect quality case management services. In four states (Akwa Ibom, Cross River, Ebonyi, and Oyo), the President's Malaria Initiative for States (PMI-S) project supported the state governments to train 5,174 health workers in the four states, conducted regular (monthly and quarterly) supervision, and introduced an innovative strategy for archiving used malaria RDT cartridges, cross checking them against reported positive cases for accuracy verification, as part of efforts to improve the quality of malaria case management in the states. PMI also provides malaria commodities to 1,924 (65%) out of the 2,978 public health facilities in the four states to improve commodity availability.

Methods: In this study, we examined four years of National Health Management Information System data (October 2019 to September 2023) from 2,978 public health facilities across four states (Akwa Ibom: 538, Cross River: 1065, Ebonyi: 534, Oyo: 841). We analyzed trends in clinical diagnosis, RDT stock out rates, and malaria Rapid Diagnostic Test (RDT) positivity rates.

Results: From 2019 to 2020, 24,853 (Akwa Ibom), 34,619 (Cross River), 7,214 (Ebonyi), and 146,008 (Oyo) of fever cases were clinically diagnosed with malaria representing 8.4%, 11.7%, 1.2%, and 26.3% of all malaria cases across the four states respectively and were treated with antimalarial drugs. However, from 2022 to 2023, this dropped to 3,775 (Akwa Ibom), 6,263 (Cross River), 946 (Ebonyi), and 6,264 (Oyo) which represents 1.5%, 2.2%, 0.3%, and 1.4% of the total malaria cases by the end of the fourth year in the four states respectively. Also, RDT stock out rates dropped from 33%, 44%, 14.4%, and 33.2% to 4%, 3.8%, 4.1%, and 9.3% in Akwa Ibom, Cross River, Ebonyi, and Oyo respectively, over same periods. Similarly, malaria RDT test positivity rates (TPR) reduced from 76% (Akwa Ibom), 79% (Cross River), 81% (Ebonyi), and 76% (Oyo) in the first year to 49% (Akwa Ibom), 60% (Cross River), 55% (Ebonyi), and 51% (Oyo) in the fourth year. Our findings showed that over the 4-year study period, presumptive treatment significantly reduced by 85% (Akwa Ibom), 82% (Cross River), 87% (Ebonyi), and 96% (Oyo) from year 1 to year 4 ($t=5.77$, p value <0.0001) while malaria RDT TPR reduced by 35% (Akwa Ibom), 24% (Cross River), 32% (Ebonyi), and 33% (Oyo) over similar period ($t=23.46$, p value <0.0001).

Conclusion: Presumptive diagnosis and TPR decreased following scale up of service delivery support and reduced stock out of RDTs in the four states. Other interventions such as insecticide treated net

mass campaigns held in the four states at different periods during the four-years study period may also contribute to the reduction of TPR. These reductions in clinical/presumptive diagnosis and malaria TPR indicate a significant positive shift in healthcare practices contributing to reduction in presumptive treatment of malaria, reducing drug wastages, and improving malaria commodity availability for patients who need them.

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2. District Health Information System (DHIS2)

Disclosure of Interest: None Declared

Evaluation of Nurses' Attitudes and Knowledge Levels Regarding Safe Medication Use Process: (2806) Birkan Tapan

ISQUA2024-ABS-2806

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Introduction: As technology develops, the element of quality in health service delivery is becoming increasingly prominent. One of the important elements in this regard is patient safety. The concept of patient safety is included in the understanding of "first do no harm", which was first expressed by Hippocrates and is the generally accepted principle of medicine. The aim of patient safety is to create a safe environment for patients and their relatives who receive healthcare services, to prevent, protect and treat them from worsening their current situation. One of the most important issues to achieve this goal is drug safety. This study is a descriptive cross-sectional study planned to determine the thoughts and knowledge of nurses about medication error reporting. The aim of this study is to determine the errors and knowledge deficiencies and to prevent medication errors and near misses.

Methods: This study is a descriptive cross-sectional study planned to determine the thoughts and knowledge of nurses about medication error reporting. The study included 105 nurses working in a private group hospital who agreed to participate in the study between November 28, 2023 and February 05, 2024 and completed two months of orientation training. Descriptive Characteristics Questionnaire, Thoughts on Reporting Medication Errors Form and Medication Error Knowledge Status Determination Form were used to collect the data.

Results: When the reasons for not reporting medication errors of the nurses participating in the study were examined, 8.8% (n=10) stated that it would be perceived as personal incompetence, 2.6% (n=3) stated that it would harm their professional life, 4.4% (n=5) stated that it would jeopardize their job, 4.4% (n=5) stated that reporting would not be useful, and 0.9% (n=1) stated that reporting was unnecessary, It was determined that 9.6% (n=11) did not know how to report, 28.9% (n=33) thought

that they could solve it among themselves, 0.9% (n=1) thought that it would be recorded in the personnel file, and 30.7% (n=35) did not report because they had not encountered medication errors before.

Conclusion: It was found that there was no significant relationship between total experience, working time in the institution and educational status of the nurses participating in the study and medication error reporting, and the scores of the employees with a working time between 0-3 years in the institution were higher than those with a working time of more than 3 years. Among those who received medication safety education, 22.2% reported that they always reported medication errors and 83.3% reported that they never reported medication errors. No significant difference was found between nurses who received and did not receive medication safety education according to the reporting status of medication errors ($p>0.05$). A significant difference was found between nurses who perceived reporting of medication errors as a success criterion and those who did not ($p < 0.05$). In the trainings provided for reporting for patient safety, it is important to consider error reporting as an important part of the system and not as a punishment for the employee. It is recommended that institutional strategies should be developed and trainings should be planned to improve nurses' ability to reflect their knowledge on medication error reporting into practice.

Disclosure of Interest: None Declared

Improve the correctness of patient self-care after joint replacement surgery: (3277) Chen Chan Kuo

ISQUA2024-ABS-3277

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Introduction: According to the 2020 National Health Insurance Medical Statistics of the Ministry of Health and Welfare, the 65-74 age group accounts for about 40.5% of the largest number of patients with degenerative arthritis. Degenerative arthritis is accompanied by swelling, pain, stiffness, limited squatting, difficulty climbing stairs and walking, etc., which affects the quality of daily life and self-care ability of individuals, leading to an increase in the need for joint replacement surgery. The most important thing after surgery is to prevent wound infection. After discharge from the hospital, continue to take care of the wound properly to avoid wound infection and promote healing. Poor wound healing affects quality of life.

Methods: To resolve these problems, wound care education checklist, wound care cue-card, wound care video clips, wound condition red flag cue-card, and customized wound care pack have been proposed and implemented.

Results: The result showed the proper wound care rate performed by a joint replacement patient at home has raised to 96.8%, which effectively improved the post operation wound care quality.

Conclusion: The purpose of this project is to improve the accuracy of wound self-care for patients after joint replacement surgery, increase the consistency of nursing staff's wound care education for patients after joint replacement surgery, remind patients of wound assessment and care steps, and understand that wound abnormalities require immediate return to the hospital. This project provides guidance for patients to correctly perform wound self-care and abnormal observation when they return home, effectively improving the quality of care and avoiding wound infection and readmission after returning home, which increases medical costs.

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Disclosure of Interest: None Declared

Enhancing Taiwan Patient-safety Reporting Volume through Patient Safety WalkRounds: (2645) Chien-Kai Lo

ISQUA2024-ABS-2645

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Introduction: The Taiwan Ministry of Health and Welfare initiated the Taiwan Patient-safety Reporting system (TPR) in 2003, adopting a non-punitive approach to collect abnormal events related to patient safety in the hospital of Taiwan. However, the reported incidents in Taiwan's hospitals are generally lower than the international average. This study aims to investigate the application of Patient Safety WalkRounds to enhance the reporting volume in the Taiwan Patient-safety Reporting system.

Methods: The Institute for Healthcare Improvement (IHI) suggests that Patient Safety WalkRounds can serve as a tool to connect top-level executives with frontline staff, demonstrating the commitment to patient safety and support for personnel. This study conducted monthly Patient Safety WalkRounds from April to December 2023. The Patient Safety WalkRounds team included the Deputy Medical Director, Medical Director, and staff members. Representatives conducted 15-20 minute interviews in various units with unit leaders and clinical staff. The objectives were to 1. demonstrate the hospital's commitment and support for patient safety, 2. establish communication channels among staff, supervisors, and managers regarding patient safety, and 3. encourage the reporting of abnormal events to identify improvement opportunities. Pre-visit meetings were held to establish consensus on the visit schedule and content. After the visit, feedback was provided, and follow-up items were confirmed. The study utilized non-parametric sign tests to analyze the reported abnormal events before and after Patient Safety WalkRounds in each unit.

Results: From April to December 2023, a total of 28 wards and medical units were visited. In the pre-data from April to December 2022, 12 units reported zero events, with a median of 3, mode of 1, and a maximum of 72 reported events. In the post-data from April to December 2023, 2 units reported zero events, with a median of 1, mode of 0, and a maximum of 289 reported events. Among the 28 units, 21 units showed an increase in reported abnormal events, 3 units remained the same, and 4 units showed a decrease. Implementation of Patient Safety WalkRounds significantly increased the reported abnormal events in units ($p=0.003$).

Conclusion: The results of this study indicate a significant increase in reported abnormal events in units after the implementation of Patient Safety WalkRounds. The process of Patient Safety WalkRounds enables clinical units to understand the importance of Patient-safety Reporting and clarify which incidents should be reported but were previously overlooked. The most significant change observed is the increased willingness of many units to report abnormal events. The study's limitation is that the post-data collection period coincided with the implementation of Patient Safety WalkRounds, potentially underestimating the actual effectiveness. Future research will continue to monitor relevant data.

Disclosure of Interest: None Declared

Implementation of patient blood management program in transfusion practice of orthotopic liver transplantation: (2126) Chueng-He Lu

ISQUA2024-ABS-2126

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Introduction: Orthotopic liver transplantation (OLT) can require substantial usage of blood products. Higher rates of transfusion have been associated with increased length of hospital stay, higher rates of infection, graft failure, and mortality. This study was a retrospective analysis to assess the transfusion

utilization and patient outcomes of implementation of patient blood management (PBM) program in OLT.

Methods: This is an observational study of graduated PBM implementation for adult OLT recipients (age ≥ 18 years) from August 31, 2001, through December 26, 2022. Allogeneic transfusion utilization and clinical outcomes were assessed over time through segmented regression with multivariable adjustment comparing observed outcomes against projected outcomes in the absence of PBM activities.

Results: In total, 574 recipients were included. Total allogeneic transfusions decreased (34% red blood cell, 61% fresh frozen plasma, and 27% platelets) over the study time frame except cryoprecipitate (21% increased). Comparing final year with baseline, total blood product utilization was reduced by approximately 68%. One-year mortality, ICU and hospital length of stay, and incident in-hospital adverse events were lower than projected at the end of the study time frame.

Conclusion: Patient blood management implementation during OLT was associated with substantial reductions in transfusion utilization and improved clinical outcomes. Broad-scale implementation of PBM is feasible without signal for patient harm.

Disclosure of Interest: None Declared

Language Services for Limited English Proficient Patient Quality and Safety - Dashboard and Data Driven Process Improvement (3477) Samuel Verkhovsky

ISQUA2024-ABS-3477

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Introduction: Professional Interpreter Services are critical to ensuring patients with Limited English Proficiency (LEP) receive safe and effective care in settings and geographies where English is the predominant language. Without professional interpreters, LEP patients encounter numerous barriers in accessing healthcare and experience higher risk in healthcare outcomes. Without documentation and measurement of LEP patient encounters and interpreter utilization, improvement efforts are challenged.

Methods: We implemented changes in the way that we identify patients primary language needs from simply asking whether an interpreter is needed to asking which language they prefer to discuss their health information in. We implemented electronic medical record documentation of interpreter utilization and we started using a dashboard to track encounters where LEP patients are seen and how interpreter services are utilized, whether in person, video or telephonic.

Results: Early results indicate that we have an improved grasp of understanding the volume, rate and distribution of instances where and when Limited English Proficient patients are seen. We have started to build a data infrastructure which allows us to monitor and track whether interpreter services are used, and their modality.

This work allows us to stratify health outcomes by LEP status. We have found statistically significant differences in important primary care metrics between LEP patients and English speaking patients.

Conclusion: This data driven work allows us to target professional language services in areas where they are needed. We are able to see where LEP patients are seen, understand their language barriers and intervene with needed services. Published literature has shown that Limited English Proficiency is an independent driver of health disparities. There are numerous care associated outcomes that LEP patients are at an increased risk of suffering. By understanding these risks and measuring where patients are seen, we can target needed services to make sure that they are able to communicate with their care providers using qualified medical interpreters.

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Disclosure of Interest: None Declared

The ADR journey – improving adverse drug reaction management to decrease the risk of patient harm: (1307) Linda Velta Gaudins

ISQUA2024-ABS-1307

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Introduction: Adverse drug reactions (ADR) are ubiquitous and pose a known risk with most medications, yet they are not optimally managed. Alfred Health is a metropolitan teaching hospital with a multidisciplinary active ADR Review Committee. Its database of fifteen years of ADR reports forms the basis for research, including ADR knowledge gaps and evaluation of patient-centred communication.

Our long-term goal is to improve ADR management to enhance patient safety. Objectives are to develop resources to ensure clinicians recognise ADRs for early intervention; improve accurate ADR documentation and reporting; and ensure effective communication to patients and healthcare professionals to decrease risk of ADR-related patient harm.

Methods: This multifaceted project commenced in 2021 by determining gaps in clinician knowledge about medication allergies, using a 13-question case-based questionnaire. Using the results of the questionnaire, gaps in knowledge, specifically in hypersensitivity and other allergy-related reactions, were targeted. An educational program was developed in 2023, initially using Powerpoint slides and face-to-face tutorials and then translating the information into interactive modules. Multiple iterations of Plan-Do-Study-Act (PDSA) cycles led to the final program version. The effectiveness of these educational interventions will be evaluated by participants and by determining the number of ADR reports submitted. The quality of reports and completeness of information will be specifically evaluated by using the Adverse reaction Quality Algorithm (AQUA-12) tool, which was developed and tested by independent assessors, with excellent inter-rater correlation.² The hospital's consumer engagement team was asked to review patient-specific resources.

Results: The ADR education program (ADREP) was developed, with input from medical, allergy and pharmacist clinicians with education experts developing the interactive platform to address identified knowledge gaps. The six self-directed interactive modules cover pharmacology and immunological mechanisms, causality evaluation and methods of communicating recommendations for safer medication use to patients. The program uses real-life scenarios to highlight key concepts, with several interactive multiple-choice questions for each module. To determine the baseline ADR report quality, 70 ADR reports were assessed using the AQUA-12 tool. Patient-specific written materials were developed including advisory letter and ADR card and information leaflets focusing on severe cutaneous adverse reactions. Patients' ADR documentation was made available via the hospital's patient portal.

Conclusion: To address gaps in knowledge, ensure timely ADR recognition and management after an ADR diagnosis, a comprehensive targeted educational resource was developed for clinicians. As the ADR educational modules become more widely available, the AQUA-12 tool will be used to regularly

assess and monitor ADR report quality. Patient resources were reviewed and made more widely available. On-going research into accessibility of ADR information for patients and clinician engagement in ADR management will further enhance medication and patient safety.

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Disclosure of Interest: None Declared

A Bibliometric Analysis of Studies on Sustainability and Quality in Healthcare Services: (2749) **Ahmet Yesildag**

ISQUA2024-ABS-2749

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Introduction: In addition to being a sector that consumes significant resources and generates harmful and toxic waste, the healthcare industry is characterized by technology-intensive and costly service delivery, resulting in serious concerns about its carbon footprint. In recent years, these concerns have brought attention to the social, economic, and environmental sustainability of healthcare services. In the context of sustainability in healthcare, quality can be defined as the ability to provide services while maintaining current standards in the future. Given the sensitivity of this definition, both practical and academic activities and works on this subject have increased. Therefore, this study aims to conduct a bibliographic analysis of academic studies conducted globally on the sustainability and quality focus of healthcare services.

Methods: In this bibliographic analysis research, publications indexed in the Web of Science (WOS) database were searched using the keywords "health care" or "healthcare" and "sustainability" and "quality." As of February 6, 2024, a total of 3746 publications were identified. All bibliographic information related to these publications was downloaded from the database and transferred to the

Bibliometrix software running on R Studio. Using the program, publications on the examined topic were analyzed in terms of annual publication count, researcher profiles, journal names, countries, institutions, citations, keywords, trending topics, authors, and international collaboration in publications.

Results: When examining the included studies by publication year, a continuous increase in publications from 1992 to 2024 was observed (9.9%), with the highest number of publications in 2023 (n=548). The included studies involved 18,182 authors, with the most prolific authors being Braithwaite J, Churrua K, De, and Ellis LA. The citation order of authors in the subject group was Alexander JA, Damschroder LJ, and Aron DC. The top journals with the most publications were Sustainability, BMC Health Services Research, BMC Open, and Implementation Sciences. The three countries with the highest number of publications were the United States, Australia, and the United Kingdom. The top institutions with the most publications were the University of Toronto, Monash University, and the University of Calgary. The most cited studies were Damschroder LJ et al., 2009 Implement SCI, Stirman SW et al., 2012 Implement SCI, and Chambers DA et al., 2013 Implement SCI. In addition to these findings, collaboration clusters of universities, authors, and countries were schematized. Examining the external keywords in the studies revealed concepts such as quality improvement, covid-19, primary care, telemedicine, hospital, patient safety, evaluation, education, nursing, management, telehealth, mental health, mhealth, ehealth. Furthermore, sustainable development goals, climate change, carbon footprint, transformation, and telemedicine were identified as trending concepts. Additionally, areas for future research were determined, including the integration of sustainability and quality studies in topics such as telemedicine, digital health, cost-effectiveness, self-management, physical activity, and medical education.

Image:



Conclusion: The analysis findings serve as a valuable resource for academics and practitioners interested in understanding current trends and priorities in the field. The identified authors, topics, journals, and countries in the forefront of sustainability and quality in the context of discussing the environmental impact of healthcare services have been highlighted. In this context, the integration of digital technologies in sustainability and quality is seen to have significant implications.

Disclosure of Interest: None Declared

Assessment of sustainable healthcare practices in Indonesian hospitals: A focus in water, sanitation, and care waste management interventions: (2761) Hanny Rono Sulistyo

ISQUA2024-ABS-2716

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Introduction: The Cone Beam CT (CBCT) is useful for diagnosing bone changes in teeth and maxilla. Since its coverage began in 2008, it expanded to cover the sinuses, and the upper and lower extremities. As the procedure has been selected for intensive review since 2014, there have been efforts to maintain a reasonable level of its utilization, however it has been continuously on the rise in accordance with increased coverage for implants. As such, this study is aimed to analyze the increase in health insurance coverage, the status of CBCT equipment over the past decade (from 2013 to 2022), and their utilization in the medical field.

Methods: In order to conduct the analysis, 4,782,594 patients have been selected from a pool of 5,993,172 cases that were associated with the CBCT billing codes within the health insurance claims data spanning from 2013 to 2022. The number of exams and fees were analyzed by year, age group, type of medical facility, department, and age of the equipment. The program SAS Enterprise Guide 7.1 (SAS Institute Inc., Cary, NC, USA) was used to create and analyze the datasets.

Results: The number of CBCT equipment and their medical usage has sharply increased in the past ten years due to increased coverage for their use. The number of CBCT scanners increased from 4,146 in 2013 to 16,603 in 2022, representing a yearly average increase of 16.7%. This growth rate is significantly higher than that of regular CTs (2.2%). The number of scanners per 1 million inhabitants in South Korea increased from 81.1 in 2013 to 322.8 in 2022, indicating a 3.9-fold increase. Dental hospitals/clinics own 14,921 (as of 2022) which makes up 89.9% of all CBCT scanners. In 2022, the majority of scanners in use had been operational for less than five years, accounting for 50.8% (8,442 units). However, the number of scanners aged from 10 to 15 years increased by 75.2% compared to 2013, suggesting a rise in the presence of older equipment.

CBCT exam fees rose from KRW10.9 billion in 2013 to KRW61.9 billion in 2022, reflecting a yearly average increase of 21.3%. The number of exams conducted increased from 230.5 thousand in 2013 to 1.117 million in 2022, indicating a yearly average increase of 18.9%. The number of billing institutions increased from 2,603 in 2013 to 11,501 in 2022, which is a 4.4-fold increase. Since coverage was offered for the otolaryngology department in 2015, there has been a 29.0% increase compared to the previous year; and coverage was offered for upper and lower extremities in 2016, which led to a 383.4% increase compared to the previous year. The number of implants and CBCT exams showed a high correlation coefficient of 0.93 ($p < 0.001$) since implants became billable in 2014.

Conclusion: In the unique Korean environment, where the people have easy access to dental facilities, the number of CBCT exams carried out by dental clinics, which own the majority of the scanners, increased with the rise in coverages offered. Furthermore, it is hypothesized that the increased cases of non-billable procedures (such as implants) that guarantee high profits for dental clinics are correlated with an increase in CBCT exams, though further in-depth analysis is needed to confirm this.

Repeat CBCT exams increase the patients' exposure to radiation, and financial burden, therefore reasonable levels of use must be maintained. In order to achieve this, we must firstly, establish the optimal number of coverage for the exam, secondly, provide differentiated insurance fees depending on the age of the scanner, and thirdly, put in place a monitoring system and management mechanism for non-billable exams.

Disclosure of Interest: None Declared

ELECTRONIC WITNESS SYSTEM IN FERTILITY CENTER: STAFF AND PATIENTS PERSPECTIVES: (2050) **Quyen Dang**

ISQUA2024-ABS-2050

H. Pham^{1,*}, H. Bui¹, Q. Dang¹, A. Le¹, T. Ho²

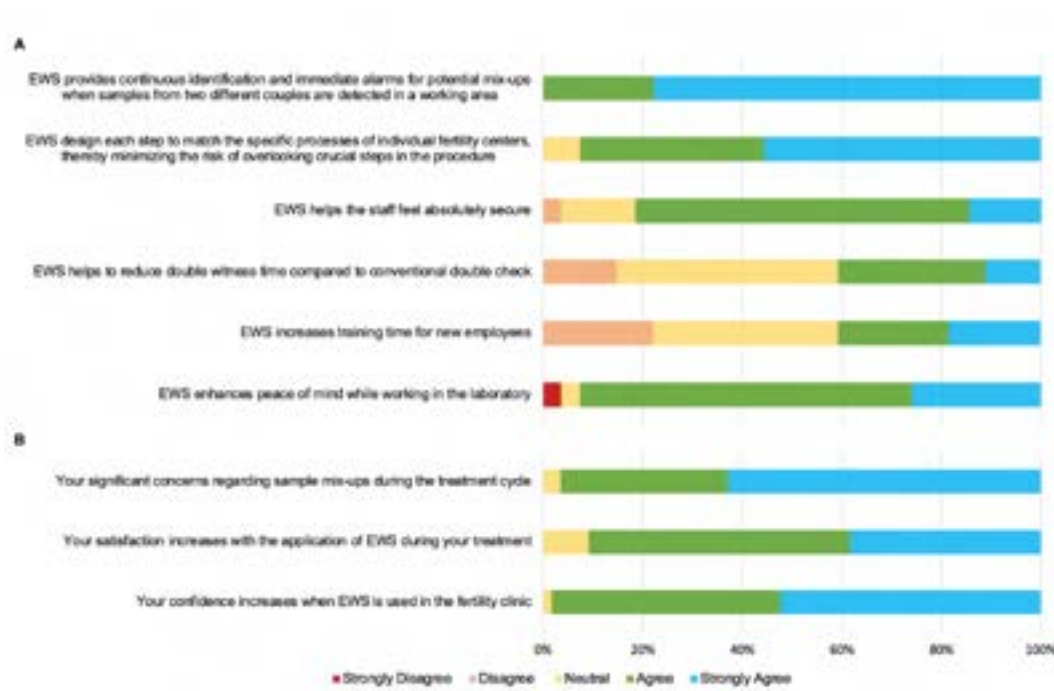
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Introduction: In a fertility clinic, biological sample identification, processing, and traceability are extremely important for in-vitro fertilization (IVF) procedures. A mix-up of gametes and embryos has the highest grade of severity. Electronic witnessing systems (EWS) have been introduced as a safeguarding measure to address these critical considerations. These systems are vital in reducing the risk of biological sample mix-ups, particularly human error. The study aimed to explore the staff's perceptions and patients' experiences at an IVF clinic operated with an EWS.

Methods: EWS using radio frequency identification (RI Witness™, Cooper Surgical, Denmark) was applied in our fertility clinic. To evaluate the influence of EWS on the viewpoints of staff and patients, a survey was conducted from December 1, 2023, to January 31, 2024. The study engaged embryologists/operation managers and patients at IVFMD, My Duc Phu Nhuan Hospital, Ho Chi Minh City, Vietnam. Participants were administered a Likert scale questionnaire (1 to 5) to assess their perceptions and experiences with EWS.

Results: There were 27 staff (24 embryologists and 3 operation managers) and 242 patients engaged in the study. The ages of staff and patients were (29.8 ± 4.4 and 33.2 ± 4.6 , respectively). The results of the staff questionnaire within the laboratory indicated a strong agreement on the effectiveness of EWS in reducing the risk of sample mix-up (77.8%), with a majority expressing increased security while working in a laboratory equipped with an EWS (92.6%). 40.7% of staff agreed that EWS could help reduce double witness time compared to conventional double check, while 14.8% did not. Moreover, a survey of 242 patients (235 women and 7 men) demonstrated that 96.3% had significant concerns about sample mix-ups. Implementing EWS reduced these concerns in 90.9% of patients, and 98.3% felt comfortable with an IVF center equipped with EWS. The study provided valuable insights into the practical implications of EWS in assisted reproductive practices.

Image:



Conclusion: The integration of EWS into the IVF clinic plays a safety role, effectively minimizing the potential biological sample mix-ups. This enhances the overall security and confidence of both patients and staff and establishes a robust system for sample mix-up prevention in assisted reproductive practices.

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Implementation of Patients Safety Checklist (PASC) in Surgery, a Stepped Wedge Cluster RCT - Effects on Patient and Implementation Outcomes: (3561) Arvid Steinar Haugen

ISQUA2024-ABS-3561

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Introduction: Background Involving patients in patient safety and quality of care is warranted. To empower patients, optimise preparations for surgery and involve patients in their own safety, a novel tool – the Patient Safety Checklist (PASC) was developed (1). Patients use the checklist before and after surgery. In a Stepped Wedge Cluster Randomized Controlled Trial we aim to investigate the impacts of the checklist on patient and implementation outcomes across surgical specialties in Norwegian hospitals.

Methods: Method This trial includes patients from a wide range of surgical specialties, including elective surgical patients, in both control and intervention arms of the trial. The study has three main work packages (WP) and investigates: WP 1) Effects on morbidity and mortality, WP 2) Self-screening of patients' nutritional status prior to admission, WP 3) Implementation of the checklist. Further, we investigate health economic consequences of checklist implementation, and how it impacts patients' health literacy. In the trial we also investigate patients' and healthcare' personnels' experiences with the checklist. The trial was approved by REK West (2016-1102). ClinicalTrials.gov, ID: NCT03105713. Funded by the Norwegian Council of Research (ID: 320475)

Results: Result More than 5600 patients have been enrolled in the trial. Data collection has been ongoing from November 2021 until March 2024. Quality control and analysis of data is ongoing, and the main results are due to be revealed within end of 2024.

Conclusion: Conclusion

Involving patients in their own safety and optimising their preparations by using the PASC checklist is feasible. The impact of PASC on patient outcomes is currently being investigated.

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Disclosure of Interest: None Declared

Short Orals

Advancing Co-design Research Tools for Evidence-Based Quality and Patient Safety Improvements: Insights from the Development of the Irish National Quality and Patient Safety Competency Framework: (1426) Dimuthu Wasana Rathnayake

ISQUA2024-ABS-1426

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Introduction: Co-design methods promote shared approaches to decision-making and participatory actions to co-produce policies, strategies, and interventions (1). Co-produced quality and patient safety (QPS) strategies guided by strong evidence are recommended due to the growing complexity of healthcare. The literature lacks detailed coverage of specific co-design research methods (2) and evolving co-design methods have resulted from diverse applications in action research. The Health Service Executive Ireland initiated a research-based co-design project, engaging all key national stakeholders and patient partners to co-produce the QPS competency framework. This paper aims to share insights from our project, proposing various co-design tools and design considerations for researchers, and encouraging the adoption of co-design methods in creating patient-centred health services through collaborative research.

Methods: A fundamental aspect of co-design as a research process was ensuring adequate representation from all stakeholders to ensure the co-designed output was relevant and met the needs of end users. We used a stakeholder mapping tool at the project's outset to identify key participants that could inform the development of a QPS Competency Framework. After obtaining informed consent, a co-design panel was formed, comprising key stakeholders from healthcare (clinical services, quality and patient safety and Human Resources leads), patient partners, professional bodies, academia, and policymakers. The panel (n=88) aimed to contribute to the design of a people-centered National QPS Framework for Ireland. The Delphi method, known for achieving consensus among experts, was used with a modified eDelphi (online) survey tool to prioritise key thematic areas. Simultaneously, a scoping review identified relevant literature, supporting evidence-informed decisions. Structured qualitative interviews identified additional topics for discussion, and five co-design sub-groups were formed to refine competencies. These sub-groups engaged iteratively in facilitated Focus Group Discussions, using liberating structures such as World café, Spiral Journal, etc. to support the development of the framework.

Results: The tools used maintained a research-based co-design approach throughout the initiation, design, and processing phases in developing the framework.

Conclusion: The collaborative approach empowered stakeholders to focus on their expertise and experience, building consensus on essential competencies across all levels in health and social care. Integrating shared value thinking into a practical environment, especially within coproducing approaches in health systems, posed unique challenges due to interdisciplinary involvement. A key outcome of this research project is the successful adaptation of qualitative research tools as various co-design strategies. This approach effectively engaged relevant stakeholders, prompting them to

reflect on the enablers and catalysts of the evidence-based co-production process. The insights gathered from these efforts have contributed to informing shared governance in the development of pragmatic and sustainable QPS competencies for the Irish Health Workforce.

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Disclosure of Interest: None Declared

Optimizing Effective Access to Sexual and Reproductive Services in Primary Healthcare Settings through joint optimization of technical, human and care culture values in selected facilities in Ethiopia: (2815) Berhanetsehay Teklewold

ISQUA2024-ABS-2815

T. D. Darebo^{1,*}, B. Teklewold¹, E. Abate¹, Z. Seife¹, B. Abegaz¹, A. Girum¹, H. Abdi¹, M. Miressa¹, I. Shemsedin¹ and Dr. Abayneh Kedir and Dr. Bontu Abera are part of this working group. ¹Healthcare System Impact Syndicate Africa, Addis Ababa, Ethiopia

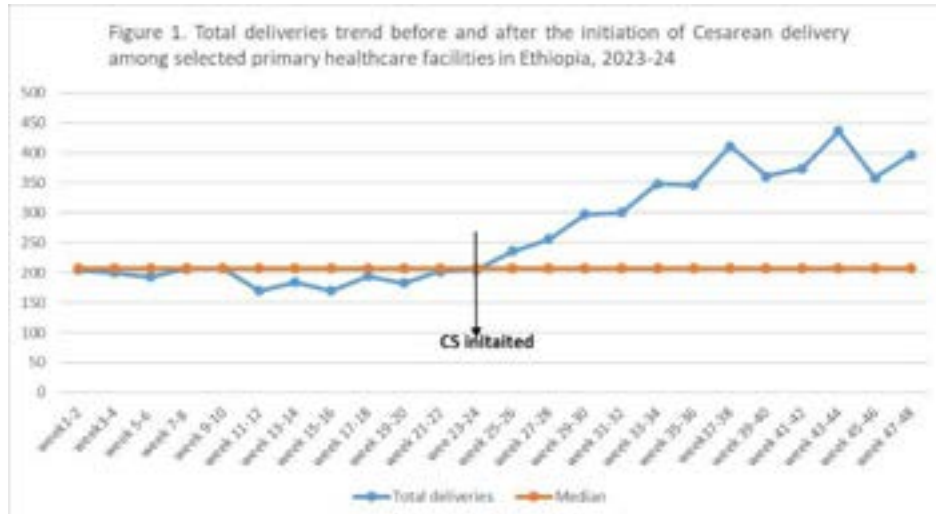
Introduction: Strengthening primary healthcare for achieving universal health coverage for all has been part of the global strategy for decades. The interventions to this end focused on expansion of healthcare infrastructure, production of human resources for health, improving supply of drugs and technology, increasing financing of healthcare services and information revolution. Ethiopia is one of the countries with policy and strategic focus on expanding primary healthcare service. As a result, the country has registered improvement in maternal and child health outcomes over the last three decades. Despite the achievements, however, utilization of services remains low, and the care provided lack quality. In this study, we investigate if joint optimization through supplementing the already available technical value inputs with human value of person centeredness of care and cultural values of leadership, teamwork, communication, collaboration, improvement and system learning would lead to improved quality, utilization of services and coproduction.

Methods: A pre-post evaluation was conducted in selected facilities in three major regions of Ethiopia—Amhara, Oromia, and Afar after implementation of the COPMOV (Contain People Move Value) bundle project package for improving sexual and reproductive services. The COPMOV bundle package designed by the Healthcare Systems Impact Syndicate Africa (ACSIS), aims at joint optimization of technical, human, and care culture values through 1. Revitalization of available unutilized or underutilized resources 2. Mapping and redesign of care processes around patients and their families and 3. Providing training and mentorship on leadership, teamwork, communication,

collaboration, improvement methodology through a hub and spoke network of learning collaborative to move value within the system, improve timeliness, person centeredness of care and literacy of patients for coproduction of sexual and reproductive health. Data on service utilization pattern were collected for six months before (October 2022-March 2023) and after (April-October 2023) the intervention. We used a run chart to measure trends in the intermediate outcomes. Six data points above the median is categorized as statistically significant change. The study employed a robust evaluation framework aligned with the World Health Organization's health system theory, emphasizing health system strengthening. The project was approved and registered by the Ethiopian Ministry of Health.

Results: Within 6 months period, the COPMOV intervention bundle package improved effective access to sexual and reproductive care in twelve comprehensive SRH centers in rural primary healthcare (PHC) settings across three regions of Ethiopia. These facilities provided timely cesarean section delivery to 572 women, reducing referrals and minimizing the second and third delays. Furthermore, a statistically significant changes were observed in the utilization of medical abortion services 191/282 (67.7%), antenatal care 4524/8162 (55.4%), and delivery services 3723/6041 (61.6%) (Figure 1), including spontaneous vaginal delivery 3158/5292 (59.7%), due to improvements in the capacity of the PHC facilities to handle potential complications. However, neonatal intensive care unit admissions have significantly increased 318/378 (84.1%), primarily due to an increase in total deliveries. In addition, the collaboration has efficiently mobilized USD 942,992.1 in equipment and supplies and involved 105 different healthcare providers from higher-level facilities to optimize the PHC facilities.

Image:



Conclusion: The joint optimization care bundle package of technical, human, and cultural care values led to improved access to comprehensive SRH care. It further facilitated mobilization and revitalization of available frozen material resource and skilled personnel, to improve utilization of care; hence, coproduction by bridging the gap. The PHC capacity was enhanced to handle potential complications timely. However, attention is needed for the sustainability and initiation of neonatal care to ensure a lasting impact.

Disclosure of Interest: None Declared

Patient-Centric Progress: Unveiling the Landscape of Shared Decision Making at Shin Kong Medical Center: (1880) Jui-Ting Chang

ISQUA2024-ABS-1880

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Introduction: The increasing emphasis on patient-centered care and the recognition of patients' pivotal role in their healthcare decisions prompt the exploration of Shared Decision Making (SDM) as a strategic initiative¹⁻³. This paper presents the transformative journey of Shin Kong Medical Center (SKMC) in integrating SDM into its healthcare framework.

Methods: The SDM strategy at SKMC involved a three-tiered approach: institutional, healthcare professionals, and patients (see Fig. 1). At the institutional level, the hospital was committed to fostering an SDM-friendly culture with leadership support, policy development, and resource allocation for seamless integration. The hospital administration was pivotal in creating an environment that encourages and rewards collaborative decision-making. Healthcare professionals were trained in SDM theory, effective communication, and practical use of information systems. Workshops and ongoing professional development were provided to ensure that healthcare providers facilitate collaborative decision-making. The medical center actively engaged patients and sought their input in decision-aid development. Information systems were designed to empower patients with accessible health information. Education sessions were implemented to encourage patients to participate in medical decisions actively. This comprehensive approach ensures a patient-centered and collaborative SDM process at SKMC, acknowledging the roles of the institution, healthcare professionals, and patients in the decision-making process. The evaluation of SDM at SKMC utilized questionnaires, created by the Joint Commission of Taiwan, for both patients and healthcare professionals.

Results: The patients' responses indicated a significant reduction in anxiety related to medical issues through SDM. In terms of post-discharge rehabilitation for heart failure patients, the average anxiety score decreased from 4.3 to 2.6 ($p < 0.05$) (see Fig. 2). The majority noted substantial assistance from SDM, ranging from 40-60%. Key promoters of SDM include improving doctor-patient relationships (71.9%) and ensuring patient understanding of diseases and treatments (75%). However, healthcare professionals reported time constraints during patient discussions (56.3%) as the most significant obstacle to SDM implementation. In addition to questionnaire-based insights, we used POWER BI to monitor and analyze institution-wide SDM usage. From January 2021 to November 2023, 13,853 instances were recorded, with a response rate of 93.5% (see Fig. 3).

Image:

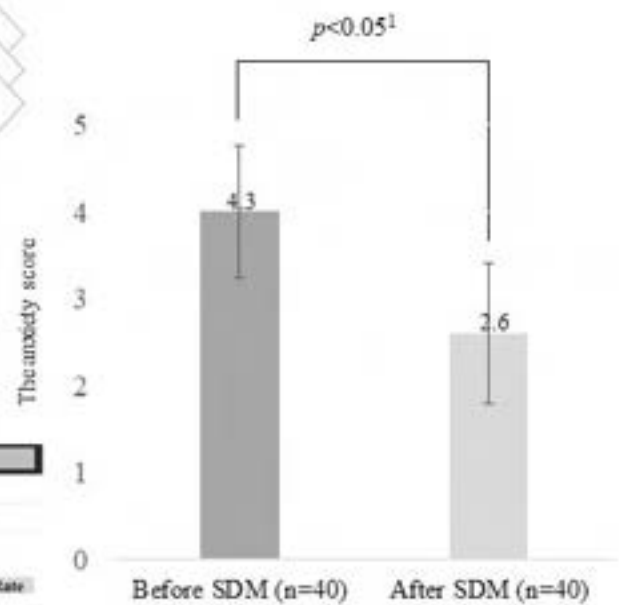


Fig. 2: The anxiety score related to post-discharge rehabilitation for heart failure patients. ¹ Paired Sample t-test.



Conclusion: The incorporation of SDM at SKMC highlighted the importance of patient empowerment in modern healthcare practices. The outcomes demonstrated that a patient-centered approach improved the quality of healthcare delivery and promoted a more inclusive and collaborative healthcare environment. The study's findings provided valuable insights into the practical implementation of SDM in medical centers. It emphasized the potential of SDM to revolutionize patient care and outcomes.

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Disclosure of Interest: None Declared

DISCO with Patients, Patient Advocates and Healthcare Teams – A Healthcare Improvement Collaboration Platform: (1302) Keith Heng

ISQUA2024-ABS-1302

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Introduction: The **Design. Ideate. Sustain. Change** for Healthcare **Organisation** (DISCO) Café serves as a platform to encourage collaborations between patients, patient advocates and healthcare teams in healthcare improvement. The cluster initiative contributes to taking progressive steps in co-production of care, experience and improving patient safety with patients as Partners in Care.

Methods: DISCO Café, a one-day ideation workshop, is structured with the following key segments: **Identification of Opportunities, Ideation and Solution Sharing.** Each segment consists of activities designed to share perspectives and feedforward for project teams to finetune their improvement ideas.

A thematic based approach helps garner the interest of projects along similar improvement objective. Besides the project teams, advocates from the SingHealth Patient Advocacy Network (SPAN-Advocates), and Technical Expert Facilitators (TEF) were invited to provide meaningful perspectives and feedforward to help teams identify opportunities to strengthen existing ideas:

Identification of Opportunities – guided by design thinking methodology, teams reflect and identify opportunities from their improvement projects. Allowing the teams to shortlist focal points for discussion and a clearer objectives of their project's intended outcomes.

Ideation – facilitated activities allow the teams to brainstorm ideas collaboratively through an adapted concept of The World Café¹ (TWC), a large group facilitation method that encourages collaborative dialogue. *"In TWC, participants are regarded as experts of their own lived experience and experiential knowledge."* As the teams rotate around the tables, TEF and SPAN-Advocates also contribute to the discussion, allowing teams to understand patients' perspectives and be aware of the essentials.

Solution Sharing – concludes with teams sharing their improved ideas with further comments and thoughts from patients, SPAN-Advocates, TEF and team members are encouraged. Cross-institution collaborations for concerted improvement efforts to be possible, as and when appropriate, is a key message in the closing of the session.

Results: 62 participants including 2 patient volunteers across 11 SingHealth institutions participated in the 2 pilot runs held in 2023 (Fig.1). 5 patient advocates from SPAN were invited to share their views and feedforward on ideas from the patient/caregiver perspectives.

Evaluation collected from the 2 pilots:

1. 94.2% of respondents (49 out of 52) rated that **they have benefited from the session.**
2. 73.1% of respondents (38 out of 52) find the solution sharing segment **the most beneficial** to their project.

3. Evaluation summary: DISCO café allowed participants to peek into and share insights on how other teams are managing a similar issue and allowing multiple perspectives and ideas to be voiced out, which helped the team to refocus on the project.

SPAN-Advocates who facilitated, and participated in the sessions, were encouraged by the effort of DISCO Café:

- As facilitators, they guided teams to shortlist ideas through the idea evaluation matrix.
- In sharing their perspectives with teams, they were heartened to see their views being considered.
- An excellent platform to bring healthcare teams, patients, and caregivers together to co-produce healthcare solutions to strengthen patient experience and safety.

Image:



Conclusion: DISCO Café is an effective healthcare improvement collaboration platform that provides an opportunity to collaborate among patients, patient advocates and healthcare teams. Ultimately, allowing healthcare teams to recognize the importance of understanding the patients' perspectives and empowering patients as partners-in-care in co-producing healthcare improvements. Additionally, seen in pilot 2, where 2 teams attended the session with a similar topic of *patient Safe Administration of Medication*. DISCO Café, with its thematic theme approach, potentially enables greater opportunities for similar projects to be scaled up cluster wide and to promote co-production in healthcare.

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Disclosure of Interest: None Declared

Embedding evidence-based professional development tools and quality improvement resources for General Practitioners to improve patient experience in healthcare: (3581) Tina Janamian

ISQUA2024-ABS-3581

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Introduction: Evidence shows high-value health care requires active engagement of patients and carers in co-designing healthcare improvements. Overall patient experience of care are supported by advanced interpersonal skills by healthcare professionals. Multisource feedback (MSF) is a validated and robust workplace-based assessment tool that offers 360-degree evaluation of a doctor's interpersonal relations and communication skills, professional behaviours, and aspects of patient care. Obtaining structured feedback about how a doctor is performing (with the ability to compare their performance in relation to benchmark datasets of similar doctors, fields, and specialism), doctors have an opportunity to improve their performance towards creating quality patient-centred care.

Methods: MultiSource Feedback (MSF) demonstrates strong alignment with the Medical Board of Australia's (MBA) Professional Performance Framework two key domains; measuring outcomes (patient feedback) and reviewing performance (colleague feedback). Data collected from patients completing the survey as a part of the MSF measuring patients' interactions with their general practitioners over the last five years will be summarised and shared in case studies.

Results: Case studies will illustrate the MSF process including the debriefing and reflective exercise involved as a professional development tool. Data from 1871 surveys completed by general practitioners and 804 surveys by registrars (2019-2023) will be shared highlighting key trends and areas

for improvement. After data analysis, it is expected to demonstrate that on average general practitioners' interactions with their patients have almost returned back to pre-COVID. In addition, determine if there was any change in doctor to patient interactions as a result of the changes in services during COVID that potentially impact patients' health care experience. MSF tools and resources will be used to illustrate how doctors can maximise patient experience data and the benefits of undertaking the learning and development process to improve patient care.

Conclusion: Involving patients in quality improvement of health care through tools such as the MSF, including self-reflection, patient feedback and colleague feedback, is gaining recognition in the medical profession. The MSF is a tool to support doctors to reflect on how they engage and work with others, and identify ways for self-improvement. Using evidence-based facilitated feedback is helpful for doctors in facilitating their reflection on and use of the feedback. The use of an evidence-based MSF that aligns with the MBAs new framework facilitates lifelong learning and professional development ensuring continuous quality improvement and a culture of collegiality, shared experience and peer support is embedded and sustained.

Disclosure of Interest: None Declared

Utilizing Information Technology in Community Large-Scale Events: Establishing Real-Time Care Models to Enhance Medical Efficiency: (2093) Chia Hui Chu

ISQUA2024-ABS-2093

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Introduction: In community-based large-scale events, mobilizing significant manpower and resources is essential, with medical stations playing a pivotal role. The predominant care model in our country involves collaboration with hospitals, where hospitals provide caregiving personnel and medical teams. When further treatment is necessary, patients are transferred to their respective medical facilities. However, these temporary medical missions often rely on paper-based operations, resulting in slow and incomplete information transmission. Consequently, various medical stations are unable to support each other effectively, and timely information provision to medical facilities is lacking, jeopardizing public safety. Therefore, this project aims to establish a care module that can adjust and collect data in real-time according to care needs. Utilizing encrypted transmission, the collected data can be promptly provided to other medical facilities for further assessment. This ensures that relevant information is received by medical facilities upon patient transfer, facilitating more comprehensive medical services.

Methods: A care model was established, wherein frontline caregivers directly determine the necessary caregiving information based on the nature of the activity. After configuring personnel at each medical station and forwarding information to medical facilities, the development of the app is completed. Before the event, medical personnel use mobile devices to access the app by logging in with assigned

credentials, allowing them to perform tasks related to medical care for the event. The app can immediately adjust and update based on the day's activities, integrate relevant caregiving data in real-time for reference at each medical station, and facilitate adjustments in medical personnel and supplies preparation based on admission numbers.

Results: The model was initially implemented in a four-day event comprising seven sessions, with four medical stations set up. The stations were staffed with five physicians and fifteen nurses. Each session served between 18,000 to 21,000 attendees, with 445 receiving medical care and 8 requiring referrals. The average wait time for receiving care decreased from 5 minutes and 32 seconds to 4 minutes and 45 seconds, representing a 14.2% reduction. Based on the symptoms observed in daily patient visits, medical supplies and medications were estimated and prepared accordingly. For instance, after identifying muscle pain and mild dehydration as the predominant symptoms on the first day, additional medications were prepared, and attendees were reminded to stay hydrated, resulting in a subsequent decrease in patients presenting with dehydration. Similar proactive measures were taken for increased cold symptoms on the second day and resulted in decreased visits by the fourth day.

Conclusion: Traditionally, post-event data compilation and integration from medical stations were challenging due to the exhaustive cleanup and lack of time for information organization. Additionally, the absence of real-time communication hindered mutual support among medical stations. With the establishment of this care model, aided by information technology, accurate prediction of visitation trends is possible, allowing for better preparation and maximizing the utilization of manpower through streamlined information exchange. Our hospital, an affiliate of a religious organization, frequently hosts similar large-scale events and can leverage this care model to other medical facilities horizontally, aiming to integrate caregiving resources and provide the public with more comprehensive and timely medical services.

Disclosure of Interest: None Declared

Empowering Women's Access to Quality Healthcare Through AI-Enabled Virtual Coaching Support: (3387) Elisabeth Ezekiel

ISQUA2024-ABS-3387

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Introduction: The evolution of artificial intelligence (AI) has opened up new possibilities in healthcare, particularly in aiding women of reproductive age to achieve better health outcomes. This study explores women's perceptions regarding the utilization of a chatbot named Kem that has been integrated with a large language model (LLM) in a mobile application aimed at enhancing reproductive

health and digital literacy. Understanding these perceptions is crucial for ensuring user acceptance and the efficacy of such technologies, particularly in medically underserved settings.

Methods: A total of 144 women of reproductive age (18-49 years) participated in the user testing in Abuja and Lagos, Nigeria. The participants from various demographic backgrounds were recruited to ensure a comprehensive understanding of the study focus. A mixed-method approach was used in this study. This approach involved conducting pre- and post-test self-efficacy surveys and semi-structured focus group discussions, to obtain relevant insights on the study objective.

Data was collected from the participants who interacted with a virtual health coach (Kem) on the CompleteHealth™ app and examined how Kem assisted their understanding and confidence in using AI. The quantitative surveys aimed to examine usage patterns, perceived benefits, concerns, and satisfaction levels, while the focus group discussions provided a deeper exploration of attitudes and experiences.

Results: The self-efficacy analysis indicated an overall improvement in users' confidence in their ability to utilize an AI chatbot to obtain valuable health information. The results indicated a baseline improvement in participants' confidence and comprehension of chatbots and their functionality, increasing from 41% to 86% before and after using Kem. Similarly, participants' confidence in trusting the information provided by a chatbot increased from 53% at baseline to 88% after interacting with Kem. The post-test surveys highlighted 86% of participants' confidence in the chatbot's ability to provide adequate and accurate responses.

Additionally, participants also appreciated the availability of Pidgin English on the bot, a Nigerian local language. However, concerns were raised during focus group discussions about users with limited traditional or digital literacy being able to type, and the need to include speech-to-text (STT) and text-to-speech (TTS) capabilities to facilitate their use of Kem.

Conclusion: The findings highlight the potential of LLMs integrated within digital platforms to empower women of reproductive age to manage their health effectively. Continuous testing and refinement of the AI chatbot offer promising prospects for enhancing digital health literacy and supporting women's health. By delivering personalized information, fostering community engagement, and leveraging generative AI, the app enables women to make informed decisions about their reproductive health. Collaborative efforts among developers, healthcare professionals, and end-users are crucial for designing equitable AI technologies to address the diverse needs of women in reproductive health management.

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Evaluations of the surveyor and the assessed organization related to the remote survey using the eye tracking and augmented reality technologies: (3137) Keziban AVCI

ISQUA2024-ABS-3137

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Introduction; In recent years, advances in artificial intelligence technologies have accelerated their use in data collection and analytical studies in health services. Artificial intelligence technologies in health accreditation surveys have a great impact on instant recording of survey evidence in electronic environment, creating survey reports simultaneously with the survey, improving evidence collection opportunities and reducing survey costs. At the same time, in remote surveys, surveyors can conduct surveys by interacting with the physical space, events, processes and other people in the surveyed organisation by using technological facilities as if they were physically there. This study was conducted to develop an innovative Remote Digital Survey Model for health services accreditation in order to test the usability of eye-tracking and augmented reality technologies and the feasibility of remote surveying through these systems in order to carry out accreditation surveys in health services more effectively and efficiently in terms of cost, location and time without compromising quality.

Methods: The Eye Tracking Technology Based Remote Inspection System developed within the scope of the study was tested with 10 different surveyors in the Laboratory Department of two hospitals accredited by TUSKA. Each surveyor evaluated 4 standards and 6 evaluation criteria. A hospital employee wore the eye-tracking based system and the remote inspector connected to the system and inspected the hospital through the eyes of the navigator. This person was guided by the surveyor with voice commands. In this way, survey evidence was collected remotely according to the TUSKA survey

method. The surveyors who tested the developed system were asked to evaluate this innovative application in terms of compatibility with evidence collection techniques such as document review, observation, interview, tracing, etc. used within the scope of the TUSKA survey methodology, as well as ease of use, communication facilities and overall satisfaction.

Results: In the interviews with the surveyors participating in the testing process, it was observed that the potential benefit of using Augmented Reality (AR) based systems in enabling the surveyor to focus on the survey by providing visual feedback where it is needed, was considered important by the surveyors and met with excitement. Table 1 presents analyses of surveyor evaluations of eye-tracking technology-based remote surveying systems and Table 2 presents analyses of surveyor evaluations of AR technology-based remote surveying systems. The nature of AR, which allows the display of standards and evaluation criteria overlaid on the TUSKAnet, is another area of superiority that is potentially useful for survey processes with step-by-step instructions and other complementary data. In addition, the developed system can provide an increase in spatial perception and a reduction in errors, time and cognitive workload. Thus, the survey process can be optimised. In the detailed questioning regarding the communication and technology problem, which the surveyors gave a score of 3, it was observed that the charging time of the device may not allow 8 hours of continuous surveying, or that it heats up during prolonged use, and that the interference in the sound and sometimes distant conversations, except for those wearing the microphone, cannot be heard sufficiently.

Conclusion: With the ability of the systems developed in this study to record the entire survey process, it will be possible to optimise surveyor decisions, reduce surveyor workload, increase the willingness to take part in survey processes, reduce objections and complaints and evaluate more objectively. Moreover, it is considered that remote surveying activities will provide time, place and cost advantages as well as more objective results. In this context, it is envisaged that both systems developed in this context can be used in training and quality improvement studies as well as survey activities.

Disclosure of Interest: None Declared

The SEE-IT Trial: Emergency Medical Services Streaming Enabled Evaluation in Trauma. A feasibility randomised controlled trial: (3174) Lucie Ollis

ISQUA2024-ABS-3174

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Introduction: Accurate and timely dispatch of emergency medical resources (EMS) is vital due to limited resources and patients' risk of mortality and morbidity increasing with time. Currently, most UK Emergency Operations Centres (EOCs) rely on audio calls and accurate descriptions of the incident and the patients' injuries from lay 999 callers. If dispatchers in the EOCs could see the scene via live video streaming from the 999 caller's smartphone, this may enhance their decision making and enable quicker and more accurate dispatch of EMS.

There is some limited evidence of the benefits and acceptability of live streaming to aid HEMS dispatch, but its impact on clinical or economic outcomes has not yet been evaluated.

This study aimed to assess the feasibility of conducting a definitive RCT to assess the clinical and cost effectiveness of using live streaming in major trauma incidents to improve targeting of EMS.

Objectives were to 1) obtain data required to design a subsequent RCT; 2) test trial processes; 3) embed a process evaluation.

Methods: A feasibility randomised controlled trial that included an embedded process evaluation and economic evaluation was conducted in one pre-hospital EMS in South-East England.

Working shifts (0600-1800; 1800-0600) during six trial weeks (one per month for six months), were randomised 1:1 to video livestreaming (using GoodSAM Instant-On-Scene) or standard care only.

Pre-defined progression criteria were:

- (1) $\geq 70\%$ callers (bystanders) with smartphones agreeing and being able to activate live stream;
- (2) $\geq 50\%$ requests to activate livestreaming resulting in footage being viewed;
- (3) Helicopter Emergency Medical Services (HEMS) stand-down rate reducing by $\geq 10\%$ as a result of livestreaming;
- (4) no evidence of psychological harm in callers or staff/dispatchers.

Observational sub-studies included (i) an inner-city EMS who routinely use video livestreaming to explore acceptability in a more diverse population; and (ii) staff wellbeing in an EMS not using video livestreaming for comparison to the trial site.

Results: A total of 62 shifts were randomised, within which they included 240 eligible incidents (132 control; 108 intervention). Livestreaming was successful in 53 incidents in the intervention arm.

Patient recruitment (to access medical records to assess appropriateness of dispatch decisions), and caller recruitment (to measure potential harm) were low (58/269, 22% of patients; 4/244, 2% of callers).

Two progression criteria were met: (1) 86% of callers with smartphones agreed and were able to activate livestreaming; (2) 85% of requests to activate livestreaming resulted in footage being obtained; and two were indeterminate due to insufficient data: (3) 2/6 (33%) HEMS stand down due to livestreaming; (4) no evidence of psychological harm from survey, observations or interviews, but

insufficient survey data from callers or comparison EMS site to be confident. Language barriers and older age were reported in interviews as potential challenges to video livestreaming by dispatchers in the inner-city EMS.

Conclusion: Bystander video livestreaming from scene is feasible to implement, acceptable to both 999 callers and dispatchers, and may aid dispatch decision-making.

Findings support a future multi-centre study that takes account of different triage systems and dispatch personnel, within which further assessment of unintended consequences, benefits and harm is required.

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Telehealth utilization trends for respiratory conditions in Australian General Practice: A means to reduce infection risk during the pandemic and beyond: (2829) Mirela Prgomet

ISQUA2024-ABS-2829

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Introduction: Public health measures aimed at mitigating transmission of COVID-19, including restrictions on face-to-face consultations, necessitated shifts to patient care delivery. In Australia, the government expanded Medicare (Australia's universal health insurance scheme), in March 2020, to provide subsidised telehealth (telephone and video) consultations with the intention of supporting accessibility to care, while protecting patients and health care providers from exposure to COVID-19. These telehealth benefits also extend to other respiratory infections. Our objective was to examine longitudinal telehealth use trends for respiratory conditions in general practice during the pandemic and beyond.

Methods: We undertook a retrospective study using de-identified data from over 860 general practices across two Australian states (Victoria and New South Wales). Data were accessed via the Population Level Analysis and Reporting (POLAR) platform [1]. The POLAR platform applies diagnosis grouping codes to data extracted from the diagnosis section of general practice patient records; which may include diagnoses (e.g., upper respiratory infection) or symptoms (e.g., cough, sneezing). The respiratory patient cohort were identified using the grouping codes "Respiratory System Diseases" and "COVID-19" and linked with service data (Medicare billing codes) to determine consultation modality. Longitudinal telehealth and face-to-face utilisation trends were analysed using Stata (Version 18) and

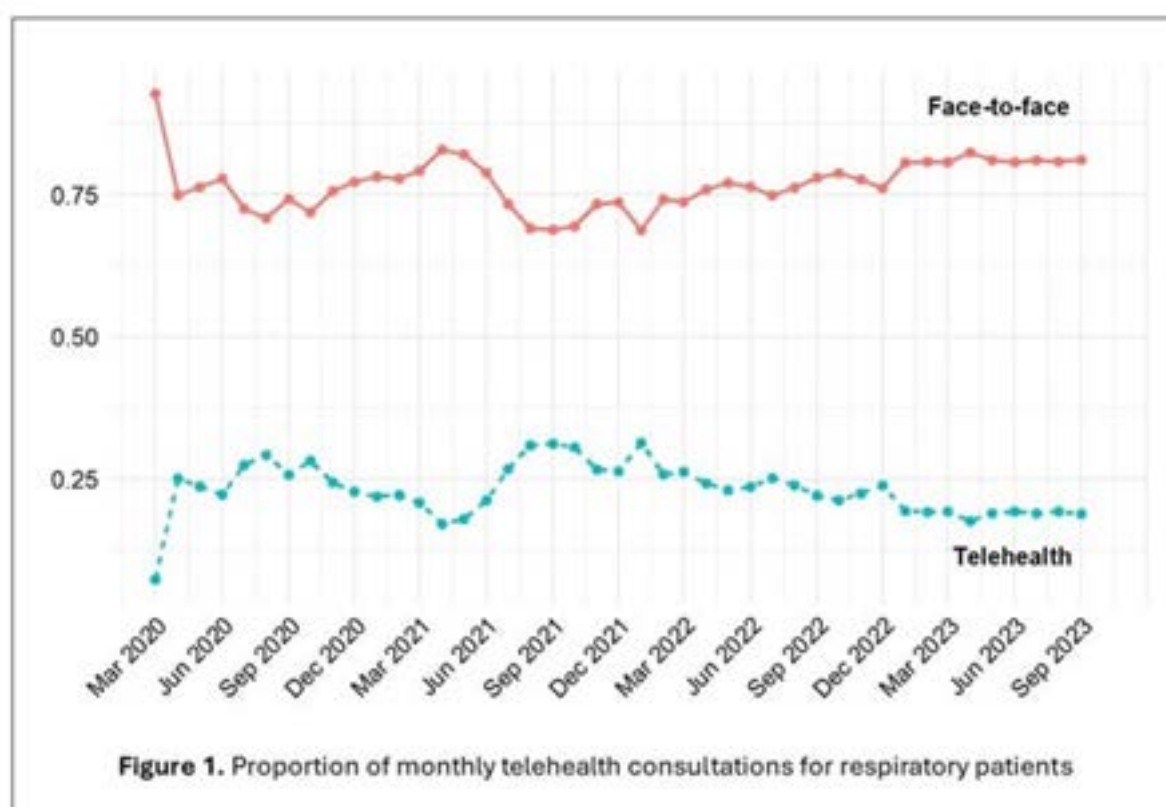
R (Version 4.3.1). Study approval was granted by the Macquarie University Human Research Ethics Committee (#5202067517176). This study was supported by Digital Health CRC Limited (DHCRC). DHCRC is funded under the Commonwealth's Cooperative Research Centres (CRC) Program.

Results: Telehealth use drastically increased in March 2020 following the expansion of Medicare subsidies (Figure 1). Of all consultations between 1 April 2020 and 30 September 2023, 21% (17,280,914) were delivered via telehealth. The yearly proportion of telehealth consultations for all patients showed a gradual decline over time: 24.7% in 2020; 22.0% in 2021; 20.9% in 2022; and 16.8% in 2023.

For respiratory conditions, 23.4% (4,912,456) of consultations were delivered via telehealth. The proportion of monthly telehealth consultations for respiratory patients fluctuated (Figure 1), with a low of 17.1% (in April 2021) and a high of 31.3% (in January 2022). The yearly proportion of telehealth consultations for respiratory patients showed a gradual decline over time: 25.5% in 2020; 24.7% in 2021; 24.3% in 2022; and 19.0% in 2023.

The proportion of respiratory patients that had a second consultation within 10 days was similar regardless of initial consultation modality: 54.9% for telehealth and 52.4% for face-to-face. For patients with an initial telehealth consultation, 44.9% had their second consultation via telehealth. For patients with an initial face-to-face consultation, 20.1% had their second consultation via telehealth.

Image:



Conclusion: During the pandemic, almost a quarter of consultations for patients with respiratory conditions were delivered via telehealth. Beyond the pandemic, utilisation rates have slightly declined. With policies regarding telehealth use and patient eligibility within Australian general practice

currently under review, the benefits of telehealth in providing a means to access care while reducing the risk of spread of respiratory infection to health care providers, and potentially vulnerable patients in general practice waiting rooms, should be strongly considered.

References: 1. Pearce C, et al. 2019. doi: 10.3233/SHTI190232

Disclosure of Interest: None Declared

Strengthening Patient Safety and Driving Quality Improvement: Healthcare Accreditation and Information Technology in the Era of Digital Transformation in Thailand: (3370) Piyawan Limpanyalert

ISQUA2024-ABS-3370

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Introduction: In today's rapidly changing world, digital technology is revolutionizing various industries, including healthcare. Understanding the significant impact of digital innovation on healthcare services, it's essential to utilize information technology to improve quality and ensure patient safety in hospitals. However, focusing solely on the positive aspects of IT isn't enough. There are inherent risks associated with IT systems, such as clinical errors or service disruptions, that need to be addressed. Given the financial constraints faced by hospitals, it's crucial to prioritize efficiency in developing IT systems. This means ensuring quality, value, and careful spending through effective budgeting, avoiding unnecessary expenses, and strategic planning.

Hospital Digital Transformation involves strategically using digital tools to enhance service quality, strengthen patient safety measures, and optimize healthcare outcomes. Despite the widespread adoption of information technology in Thai hospitals, there are still significant gaps, especially in areas like process redesign and clinical decision support systems. To address these gaps effectively, Thai Medical Informatics Association (TMI) advocates for comprehensive digital training and capacity-building within healthcare facilities.

Since 2007, TMI has actively promoted the development of hospital technology systems, notably through the establishment of the Framework for Improving the Quality of Hospital Information Technology (HITQIF) certification program. This initiative aims to enhance technology quality and streamline data management processes within healthcare facilities. Collaborating with the Healthcare Accreditation Institute (HAI) in 2014 furthered efforts to improve the quality of hospital information

technology. Additionally, the introduction of the Hospital IT Maturity Model in 2014 provided a comprehensive framework for assessing and enhancing technology maturity levels within hospitals.

Methods: Through collaborative efforts and innovative initiatives, TMI is committed to advancing the quality and effectiveness of hospital information technology. This commitment is evident in the successful launch of HA-IT certification since 2015, with 50 hospitals achieving certification across levels 1, 2, and 3, ultimately contributing to optimal patient care delivery.

We will share how to implement HA-IT in hospitals, framework, and the benefits of HA-IT.

Results: In 2023, the Healthcare Accreditation Institute (HAI) conducted a survey assessing the readiness of 80 public hospitals in Thailand to adopt technology systems aimed at supporting and enhancing hospital quality. The findings revealed significant challenges, with 78% of hospitals encountering obstacles hindering the planned development of a digital infrastructure. Among these challenges, 51% of hospitals reported a lack of readiness in terms of information security.

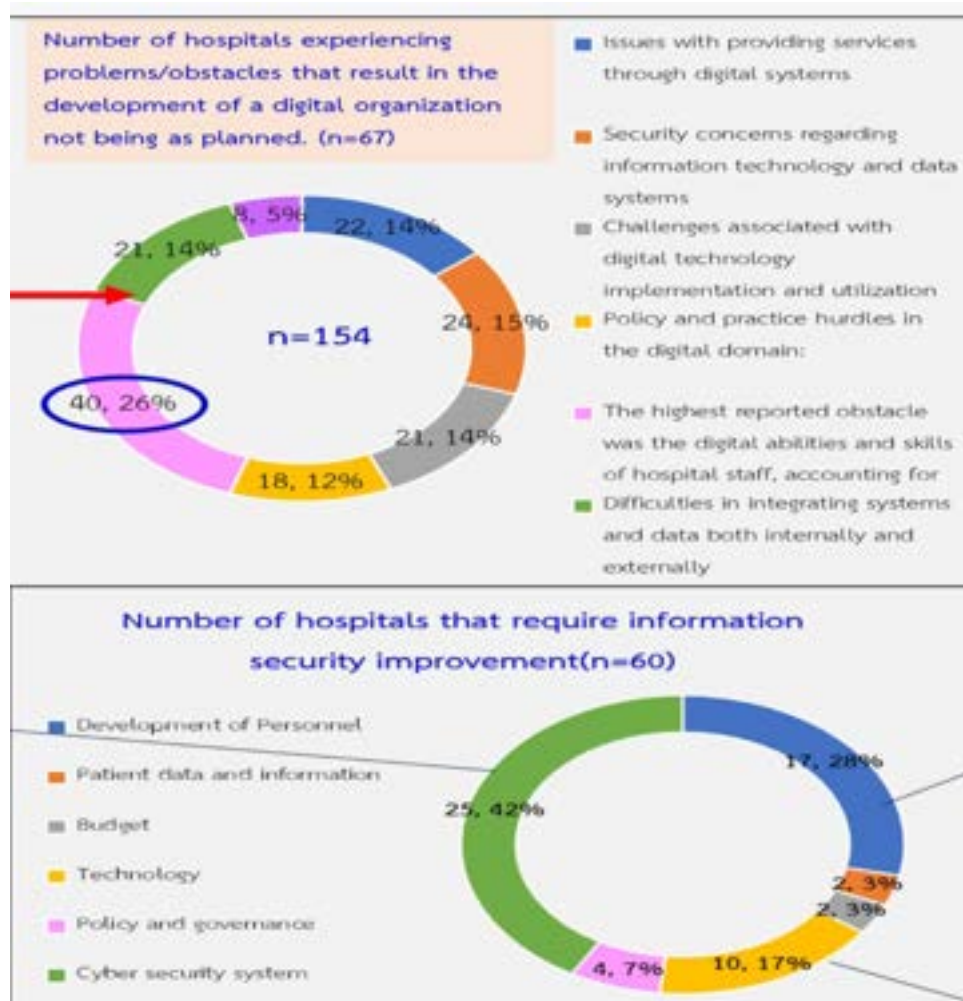
The identified obstacles encompassed various facets of digital transformation:

1. Digital abilities and skills of hospital staff, accounting for 26%.
2. Issues with providing services through digital systems: 14%
3. Security concerns regarding information technology and data systems: 15%
4. Challenges associated with digital technology implementation and utilization: 14%
5. Policy and practice hurdles in the digital domain: 12%
6. Difficulties in integrating systems and data both internally and externally: 14%.

In response to these findings, the Thai Ministry of Public Health has prioritized initiatives to enhance quality, particularly in cybersecurity, with a focus on promoting HA-IT certification.

As part of the presentation, experiences from two hospitals in Thailand that ransomware attacks will be shared, illustrating how HA-IT certification facilitated their response and recovery processes.

Image:



Conclusion: In conclusion, the fusion of healthcare accreditation with digital transformation heralds a significant paradigm shift in healthcare quality management. Embracing digital technologies offers hospitals the opportunity to not only improve operational efficiency but also revolutionize patient care delivery. This transformative approach ensures a future characterized, not only in Thailand but also globally.

In Thailand, hospitals still have room to improve by using digital transformation to make care even better and safer for everyone.

References: 1. Thai Medical Informatics Association. Hospital IT Quality Improvement Framework (HITQIF v2). February 2021. Available at: https://tmi.or.th/wp-content/uploads/2021/12/HospitalIT_QualityImproveFramework_V2.pdf

2. Healthcare Accreditation Institute. Guidelines for self-assessment criteria according to Program and Disease Specific Certification (PDSC) - Healthcare quality development system using digital technology. 2023. (Thai version).

Disclosure of Interest: None Declared

Facilitating a Positive Patient Safety Culture by Learning: (2868) John Fitzsimons

ISQUA2024-ABS-2868

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Introduction: RCPI's Situation Awareness for Everyone (SAFE) collaborative programme improves communication, builds a safety culture and enhances outcomes for patients in Irish hospitals. It is aligned with and provides implementation support for the key objectives of the HSE Patient Safety Strategy, 2019. By providing training and support to clinical teams through SAFE, safety leadership is developed on the frontline to the benefit of staff, patients and their families, delivering on Commitment 3 - Anticipating and Responding to Risks to Patient Safety. Frontline clinical teams are facilitated to implement a bespoke patient Safety Huddle intervention to enhance interdisciplinary communication and team psychological safety which results in measurable improvements in perception of safety culture.

Methods: The collaborative methodology is a short-term learning system that brings together teams from different hospital sites to seek improvement in a specific subject area. The blended learning course runs over six months with in-person and virtual workshops, facilitated by expert clinical and quality improvement faculty. Teams have access to Brightspace, RCPI's online learning environment, which hosts online learning tools, key resources and a designated SAFE cohort forum. Teams upload progress reports and 'homework' to Brightspace for developmental feedback and bespoke coaching opportunities.

Team self-assessment of safety culture in their team and organisation is evaluated at the beginning and end of each SAFE cohort using the validated Manchester Patient Safety Framework (MaPSaF) tool. MaPSaF was designed to measure perceptions of the importance of safety across a team and in their organisation. The framework uses ten dimensions of patient safety and each of these describes what an organisation would look like at five levels of safety culture.

MaPSaF helps teams recognise that patient safety is a complex multidimensional concept by
facilitating reflection on the patient safety culture of a given healthcare organisation and team
stimulating discussion about the strengths and weaknesses of the patient safety culture in the team and organisation;
highlighting any differences in perception between staff groups
helping teams understand how an organisation with a more mature safety culture might look
helping teams evaluate any specific intervention to change the safety culture of their organisation and team

Results: Data will be presented, as run charts and case studies, to demonstrate teams' measurable improvement in their perception of safety culture at the end of SAFE. Dimensions typically seeing improvement across all SAFE Teams include the level of priority and transparency given to safety, how teams engage in learning and effecting change, how teams have developed interdisciplinary communication about safety issues and perceptions of teamworking.

"Our multidisciplinary safety huddle continues – morning and night 7 days a week, it continues to be a brief meeting approx. 10 minutes.

It is an efficient and safe way to share departmental activity and (clinical and non-clinical) challenges. While patient safety is at its core, it does not have an exclusive brief to identify a 'deteriorating patient' but rather has a broader remit to support multidisciplinary and multidepartmental engagement and service planning in the busiest maternity hospital in Ireland."

Conclusion: RCPI's SAFE Collaborative programme facilitates frontline clinical teams to focus on measurable and targeted safety interventions. Through engaging in this programme, teams experience realtime improvement in psychological safety and safety culture in their settings. The Situation Awareness for Everyone collaborative is an intervention that can make a real difference.

Disclosure of Interest: None Declared

Advancing healthcare quality: The Nambian experience in implementing international quality standards in public hospitals: (1787) Apollo Basenero

ISQUA2024-ABS-1787

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Introduction: Ensuring high-quality healthcare services is essential for fulfilling Namibia's healthcare mission and vision outlined by the Ministry of Health and Social Services (MoHSS). However, the absence of internationally recognized standards posed a significant challenge in assessing and benchmarking healthcare quality, particularly in the public sector. In response, the MoHSS embarked on a comprehensive initiative to develop and implement quality standards for hospitals and primary healthcare (PHC) facilities. The overarching goal was to ensure continuous improvement in the quality of healthcare services to enhance patient outcomes and save lives.

Methods: The MoHSS collaborated with a globally recognized health service accreditation body to spearhead the standards development process. Launched in 2018, the initiative employed a structured approach, including desk reviews, meetings, interviews, and stakeholder consultations. A five-day workshop convened key stakeholders to draft comprehensive healthcare standards, criteria, user

guides, and an implementation framework. These standards encompassed all hospital and PHC facility departments, termed service elements, with compliance scores categorized as $\geq 80\%$ (compliant), 40-79% (partially compliant), and 0-39% (non-compliant). Piloting occurred at two hospitals and two PHC facilities, followed by feedback incorporation and final drafting preceding phased implementation.

Results: Internationally recognised healthcare facility standards for hospitals and PHC facilities respectively were launched in February 2022. Namibia has 36 public hospitals, including 31 district, 4 intermediate, and one national referral hospital. Initially, the implementation targeted four public hospitals of different levels, comprising two intermediate and two district hospitals. Baseline assessments revealed partial compliance between 50-62%. Key service elements such as resuscitation systems, risk management, medical equipment services, and sterile services scored the least. QI trainings, conducted between August and October 2022, taught QI methodology to enable staff to address gaps, resulting in the development of QI work plans by each hospital. A four-day learning session in February 2023 facilitated peer learning, highlighting areas of improvement which included drafting and publishing hospital organograms, establishing hospital QI coordinating committees, drafting essential hospital policies to standardise service provision, developing hospital and department risk registers, ensuring temperature monitoring in medication storage areas, addressing equipment maintenance issues, and enhancing fire safety measures.

By May 2023, standards were expanded to six more hospitals (1 national referral, 2 intermediate, and 3 district), with baseline assessments ranging from 44-68%. Currently, a total of 10 hospitals implement the standards, serving 1,193,059 individuals (46% of Namibia's population) with a combined bed capacity of 4270 (56% of total public hospital bed capacity). In 2024, interim hospital assessments are planned in preparation for accreditation, along with extending the standards to selected primary healthcare facilities.

Conclusion: The Namibian experience underscores a dedicated commitment to enhancing healthcare quality through the implementation of internationally recognized standards. Ongoing efforts, guided by validated QI methodologies, demonstrate significant progress in addressing identified gaps and cultivating a culture of continuous improvement.

Disclosure of Interest: None Declared

Catalyzing 'Herd Quality in healthcare': NABH motivating accredited hospitals to mentor smaller healthcare facilities in rural and urban settings in India - A pilot project: (3079) Atul Mohan Kochhar

ISQUA2024-ABS-3079

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Introduction: The COVID-19 pandemic has reshaped the global healthcare landscape, including India, prompting a renewed focus on quality in healthcare to fortify the nation's healthcare system. We would like to propose the term and concept of 'herd quality' focusing on collaborative efforts to elevate the overall quality of care within a healthcare eco-system. Hub and spoke model has been used across industries to augment peripheral services by centralising key resources. National Accreditation Board for Hospitals and Healthcare Providers (NABH) has taken it upon itself to cater to the needs of the consumers and sets standards and benchmark for the progress of the Indian health industry since last 19 years. This pilot project explores how NABH acts as a catalyst for implementing 'herd quality' principles, fostering a collaborative approach to enhance overall healthcare quality in the country.

Methods: This is a pilot study on the hospitals and healthcare facilities accredited and certified by NABH in India. The accredited facilities were designated as hubs and the non-accredited facilities around them and in their districts were called as spokes. These hubs were already evolving with expertise and excellence in quality in healthcare and they were mentored by NABH to adopt at least 4 healthcare facilities surrounding them and in their respective districts. These facilities were also trained to promote, endorse and spread awareness about the basics of quality and patient safety to the other adopted facilities. The study covers around 25 accredited hospitals with more than 300 beds, who have undergone minimum 3 cycles of accreditation and renewal spread across all 5 regions (North, East, West, South and Central) of India. Training in quality improvement, adoption and adherence of healthcare quality and patient safety was done using point of care quality improvement methodology. The modules included various topics like patient safety goals, handwashing techniques, medication errors, adverse events, patients' rights and responsibilities, emergency codes, clinical and medical audits, hospital acquired infections, key performance indicators and others.

Results: Over the years, it was observed that these accredited hospitals were successful in their roles of mentoring the other adopted facilities and hence elevating the quality in these facilities. As on 31st December 2023, there were around 72 healthcare organizations which were adopted by the accredited facilities, have started their journeys in quality under various categories of accreditation and certification programmes. Around 32 of these healthcare facilities who started their journey in NABH certification programmes have now been accredited by NABH. While embracing herd quality is promising, challenges such as resistance to change, resource constraints, and varying levels of engagement among healthcare professionals need careful consideration. Strategies to address these challenges include effective communication, leadership support, and providing incentives for collaborative efforts. The journey towards herd quality in India requires a nuanced and adaptive approach, acknowledging the country's diversity while striving for universal standards of excellence in healthcare delivery.

Conclusion: Going beyond individual excellence and standardized practices, the concept of 'herd quality' should be defined and established in healthcare like the concept of 'herd immunity' recognized after the pandemic. 'Herd quality' in healthcare drives beyond individual performance metrics and emphasizes a collective approach to enhance the overall quality of care delivery. It involves fostering a culture of collaboration, continuous improvement, and shared responsibility among healthcare professionals within a system. Incorporating herd quality principles into healthcare practices holds great potential for elevating the overall quality of care. The evolution towards a herd quality mindset is essential for creating resilient and patient-centred healthcare systems in the ever-evolving landscape of medicine and NABH has been successful in this mandate. NABH's commitment to setting and maintaining high standards for healthcare facilities positions it as a key player in catalysing 'herd quality' in Indian healthcare.

Disclosure of Interest: None Declared

A Learning Health System initiative to improve MS outcomes: The Multiple Sclerosis Continuous Quality Improvement Collaborative (MS-CQI) multicenter step-wedge randomized controlled study: (3519) Brant Oliver

ISQUA2024-ABS-3519

Introduction: Multiple sclerosis (MS) is a complex, chronic, and costly condition that is among the most common and disabling neurological diseases in adults. We describe the results of the first multicenter collaborative improvement effort to improve MS population outcomes using a Learning Health System (LHS) approach, a structured Quality Improvement (QI) intervention, and a prospective step-wedge randomized design.

Methods: Four MS care centers in the United States participated in the MS-CQI multicenter study from 2018-2021. Clinical data (including MRI imaging, relapses, hospitalizations, ED utilization) and Patient Reported Outcomes (PRO) data (including depression, anxiety, health confidence, and others) were collected. A prospective 3:1 (intervention to control) step-wedge randomized design was employed at the center (system) level to expose participating centers to intervention vs. control states after a one-year baseline observation period. The experimental condition was professional quality improvement (QI) team coaching + monthly virtual learning collaborative sessions. The control condition was usual care. All centers received monthly feedback reports in a visual dashboard which displayed clinical and PRO outcomes at center and full collaborative levels using Statistical Process Control (SPC) analyses. This study completed ethics review and was approved as a minimal risk research study by the Dartmouth Institutional Review Board (IRB). Descriptive statistics and longitudinal mixed-effects regression analyses were employed. The study was powered for a primary outcome of relapse (MS exacerbation) reduction, with the hypothesis that intervention would result in a significantly greater reduction than control. Qualitative assessments were conducted at the close of the study to assess site experience.

Results: Baseline characteristics prior to intervention have been previously reported.¹ Extending into the intervention phase of the study, 3,461 adults with MS were followed for a total of 3 years and over 15,000 encounters. Adherence to the intervention was uniform throughout save for the second half of the third year of the study which coincided with the onset of the COVID-19 pandemic and likely introduced a confounding effect on access and practice patterns as three of the four participating sites shifted from predominantly in-person to virtual practice. Relapses, hospitalizations, and emergency department (ED) utilization reduced in both groups, but reductions were greater in the intervention group. Significant center-level variation was observed across all 3 years in multiple PRO measures including fatigue, depression, and work productivity, and also for relapse outcomes. Time in intervention, patient age, number of comorbidities, female gender, and non-relapsing MS subtypes were all significantly associated with core outcomes. Qualitative assessments revealed that MS center teams perceived value in participating in MS-CQI, felt more empowered and more skilled, felt better informed, reported less burnout, and perceived that the community of practice created by the learning collaborative contributed to the ability of the MS-CQI study to complete despite major disruptions introduced secondary to the pandemic.

Image:

Table 1. Mixed Effects Regression Results for Core Outcomes

	Hospitalization	ED	UC	MRI (any)	Relapse
Quarters in study	-0.1 (-0.12 ± 0.07)***	-0.08 (-0.08 ± 0.06)***	0 (-0.05 ± 0.05)	-0.07 (-0.08 ± 0.06)***	-0.26 (-0.21)***
Patient Age	-	-	-	0.00 (-0.00028 ± 0.00015)	-0.05 (-0.03)***
Intervention Status	0.86 (0.64 ± 1.07)***	0.63 (0.63 ± 0.83)***	-0.32 (-0.79 ± 0.14)	0.41 (0.33 ± 0.49)***	0.32 (-0.01)
Number of Comorbidities	0.26 (0.2 ± 0.32)***	0.28 (0.28 ± 0.34)***	0.18 (0.03 ± 0.34)*	0.01 (-0.01 ± 0.03)	0.14 (0.02)
Gender (Female)	0.02 (-0.23 ± 0.27)***	-0.08 (-0.08 ± 0.17)	0.33 (-0.39 ± 1.05)	-0.05 (-0.12 ± 0.03)***	0.23 (-0.28)
MS Type (Non-RRMS)	0.45 (0.19 ± 0.71)***	0.15 (0.15 ± 0.41)	0.04 (-0.68 ± 0.76)	-0.37 (-0.46 ± 0.29)***	-0.38 (-1)

† P<0.1, * P<0.05, ** P<0.01, *** P<0.001

Conclusion: MS-CQI demonstrated feasibility, acceptability, and utility in completing the first randomized multicenter study employing a LHS approach paired with a specified QI intervention. The study completed despite a major confound introduced by the onset of the COVID pandemic in the second half of the final year. Intervention was associated with greater relapse reductions and sites perceived many benefits to participation, including a perceived protective effect against burnout. Significant between-site variation was observed throughout the study across many clinical and PRO measures. Time in intervention, age, comorbidities, gender, and MS type were all significantly associated with core outcomes.

References: 1. Oliver BJ, Walsh K, Messier R, Mehta F, Cabot A, Klawitter E, Pagnotta T, Solomon A, England SE, for the MS-CQI Investigators (May, 2021). System-level variation in Multiple Sclerosis care outcomes: Initial findings from the Multiple Sclerosis Continuous Quality Improvement (MS-CQI) research collaborative. *J Pop Health Mgmt*; <http://doi.org/10.1089/pop.2021.0040>.

Disclosure of Interest: B. Oliver Grant / Research support from: The MS-CQI was developed by the investigators and received research grant support from Biogen, a biotech company which produced pharmaceutical treatments for MS. MS-CQI did not specifically study or promote any MS treatments., K. Walsh: None Declared

The Learning Organization: A New Concept in Lebanese Hospitals: (1366) Jamal Ahmad Yasmine

ISQUA2024-ABS-1366

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Introduction: The main role of health care organizations is to deliver a safe and effective care. Hospitals' strategies to transform into learning organizations are proposed to improve their effectiveness and efficiency (Singer, Moore, Meterko, & Williams, 2012). Organizational learning establishes the framework that amalgamates the diverse groups of health care professionals from various disciplines into a consistent platform to improve patient care (Ratnapalan & Uleryk, 2014). There is a deficit in the empirical research which studies the concept of the learning organization in Lebanese hospitals. The purpose of this study is to evaluate the reliability and validity of the Dimensions of Learning Organization Questionnaire (DLOQ) and to assess the perception of health care professionals toward its dimensions in Lebanese hospitals. The guiding question for the study was "How do Lebanese healthcare workers perceive learning organization dimensions?". The need for this research is based on the necessity for hospitals, as complex organizations, to acquire a profound realization of the concept of learning organization.

Methods: A quantitative, descriptive cross-sectional research design using the Marsick and Watkins 21-item DLOQ to assess healthcare workers' perception towards the seven dimensions of the Learning Organization at 15 Lebanese hospitals. The data collection period was during June - September 2019. Descriptive Statistics (mean scores and standard deviation for the Learning Organization and Exploratory Factor Analysis (EFA) and Internal Consistency Testing of the Measure Scales were carried on. Cronbach's Alpha coefficient for Individual Learning Level (*Continuous Learning, Dialogue and Inquiry*) was 0.842 and for Organizational Learning Level (*Embedded Systems, Empowerment, Systems Connection and Strategic Leadership*) was 0.905, supporting the appropriateness of the instruments.

Results: A total of 403 valid responses were received corresponding to 59% response rate. Kaiser-Meyer-Olkin (KMO) measure was 0.938 indicating satisfactory factor analysis to proceed. EFA showed a seven-factor solution with 18-items to be the most conceptually meaningful representation of the data, accounting for 77% of the total variance.

Respondents had a mean score of 3.36 (SD 0.869) for the *Inquiry and Dialogue* dimension which describes the accrual of creative reasoning skills of people to articulate their views and their capability to inquire and listen to others. Akhtar, Arif, Rubi, & Naveed, 2011 reported that the *Inquiry and Dialogue* dimension significantly affected organizational performance with beta values of 0.455 and t-statistics of 3.022. Therefore, for better organizational performance a higher score for this dimension

is recommended in healthcare as reasoning skill is an indispensable component of medical profession. Respondents scored 3.39 (SD 0.749) on the *Continuous Learning* dimension. Scoring high on this dimension reflects that employees can acquire on the job and are provided opportunities for continuous education and growth. These findings advise that at the individual level including *Continuous Learning* and *Inquiry and Dialogue* employees are somehow provoked to ask questions and express their opinions. This also indicates that learning opportunities and self-development are accessible. The *Team Learning* dimension mean score was 3.26 (SD 0.786). This dimension is of great value for health care organizations in adapting and responding strategically and operationally to continuous change. Peter Senge (1990) stated that organization cannot learn until teams can learn. Therefore, this dimension is considered as an area for improvement in Lebanese hospitals. The *Embedded System* (mean score 3.38, SD 0.77) is one of the organizational learning level dimensions and it covers the creation of systems that are integrated within the work sphere. Thus, Lebanese hospitals are supposed to measure the extent to which resources are spent however not to do a gap analysis to improve their efficiency and to better understand how to improve processes and products. The highest mean score was reported for the *Strategic Leadership* dimension (mean score 3.59, SD 0.81). In Lebanon, hospital management somehow delivers strategic leadership for learning where leaders ensure that the actions of organizations are consistent with their values. Leaders endorse, support and use learning strategically for business results. This can be ascribed to the level employees entrust their leaders in a hospital setting which is characterized as being high power distance society. Senior employees are respected by junior staff not only because of the competence of the former, but because of their age and long tenancy in the organization. In this study, around 67% of respondents have six years of experience and more (37% have 11 years or more) with 60% being more than 30 years old.

Concerning the *Empowerment* dimension, it scored near to the average (3.31; SD 0.77). Empowering healthcare workers involves them to set and implement a shared vision. They are motivated and accountable to learn and make decisions. Although, the *Empowerment* dimension scored above average it can reflect the centralized hierarchical structure within hospitals. The healthcare sector is one of the most progressive sectors in the Lebanese economy, however it remains to be mostly bureaucratic, ruled by hierarchical structures, rules, and procedures. Healthcare workers need to be empowered in order to take learning initiatives, however as explained before the healthcare organizational structure can impede empowering staff and this was reflected by the low ratings on the empowerment dimension. Finally, the *System Connection* dimension refers to the link between the learning organization to its communities; where people can recognize overall environment and use information to adjust practices in work. Akhtar et al. (2011) reported that the *System Connection* dimension affect significantly organizational performance. In the current study, this dimension showed an average mean score of 3.33, SD 0.808 which is close to the mean score (3.21) as reported by Leufvén et al. (2015) but lower than the mean score (3.59) reported by Kumar et al. (2016). A cross-sectional quantitative survey research assessed the perception of nurses of the dimensions of the learning organization in governmental hospital in KSA. Authors reported a negative perception of the seven dimensions of learning with a mean score ranging between 2.15 and 2.46 (Alhawsay, Hamouda, & Mahmoud, 2017). These findings are lower when compared to the findings of the current study.

Conclusion: The first step an organization must take in order to transform into a learning one is to establish a tool which measures where the organization stands in terms of the seven dimensions of

the learning organization. In this study, the psychometric analyses conducted provided overall support for DLOQ in healthcare. The areas of strength across the sample were the *Strategic leadership* dimension followed by promoting *Inquiry and dialogue* and creating *Continuous learning* opportunities dimensions of the individual learning level. However, the somehow positive responses on the individual level do not pervade the collective level and experience. This can be related to the weakness of systems to share learning and to use teams as means for learning as reflected by the low score for team learning. The transformation process of a learning organization builds up from individuals' skills and commitment to collectively developing a team learning dynamic which is essential to uphold organizational learning. A practical implication of this study is that it provides hospital administrators with an idea of the perception of learning at the individual, team and organizational levels. Moreover, the results provided additional support for the use of the DLOQ in healthcare mainly in the Lebanese context as guided by the EFA. Therefore, Lebanese hospitals are encouraged to adopt the DLOQ tool to assess the learning culture, compare results to this baseline study and look for areas of improvement based on their findings.

The learning organization approach requires the support of leadership. It is proposed to assess in future research the impact of leadership theories to enhance adoption of the learning organization concept.

Disclosure of Interest: None Declared

Patient Safety in Community-based Surgical Centers in Alberta, Canada: a descriptive study of post-surgical adverse events in accredited non-hospital facilities from 2018 to 2023: (3491) Fizza Israr Gilani

ISQUA2024-ABS-3491

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Introduction: As of November 2023, there were over 76, 000 Albertans waiting for scheduled surgery in Alberta, Canada(1). As a strategy to address the surgical backlog, lower risk surgeries are being increasingly outsourced to community-based surgical facilities from traditional hospital settings. The College of Physicians and Surgeons of Alberta (CPSA)(2) is the medical regulatory authority in the province of Alberta, Canada. In line with its patient safety mandate, CPSA is responsible for setting standards and accrediting non-hospital facilities across Alberta. Operational oversight of individual facilities remains under CPSA regulated Medical Director(s). CPSA's Non-Hospital Surgical Facilities (NHSF) Accreditation standards support Medical Directors in creating cultures of quality improvement and strong assurance systems to ensure high quality of services and patient safety. Under these standards facilities are required to report certain post-surgical adverse events to CPSA for quality assurance and supportive feedback.

The objective of this study was to provide a descriptive overview of reported post-surgical adverse events in community-based surgical facilities in Alberta between 2018 to 2023.

Methods: A retrospective review of post-surgical incident (Death or hospital admission within 10-days of surgery; hospital transfers; surgery on wrong-site, wrong-procedure, and wrong-patient; and cluster of infections) reported to the NHSF Accreditation program was conducted for the study period. Descriptive statistics and trend analyses were derived using available de-identified patient (age, ASA class, sex), surgery (type, anatomic category) and facility level (type) data. An analysis of variance test was used to ascertain between group difference in patient characteristics across reportable incident types.

Results: Overall, the program received 471 incident reports for the study period. Patient death was the least frequently reported adverse event type (n=5; 1.1%) while hospital transfers (n= 229; 48.8%) and admission within 10 days of surgery (n=229; 48.8%) were most frequent among all reported incidents. Patients ranged from 1 year of age to 87 years, with a mean age of 37.9 (SD±22.4) and median ASA class of 2 (range 1-4). 32.6% of the incidents (n=310) occurred in female patients. No significant trend changes were observed in patient severity (based on ASA class) (p= 0.42) or age (p=0.17) across study years. However, there was a significant between group difference across incident types for varying patient ages (p=0.002) with patients over 65 years of age experiencing post-surgical death(n=3; 60%) and infections (n=1; 50%) more frequently and patients 18 to 64 more likely to be transferred(n=145; 65%) or admitted to hospital (n=140; 61%) within 10 days of surgery. A significant difference was also found between patient ASA class and incident type (p=0.001). Fewer post-surgical adverse incidents were reported (n=160; 34.1%) by facilities contracted with the regional health authority compared with other private surgical facilities.

Conclusion: This study shows that post-surgical adverse events continue to occur in community-based surgical facilities. As more complex procedures are outsourced to non-hospital settings, proactive efforts and resources will remain necessary to ensure ongoing safety for surgical patients. Accreditation of NHSF is an important lever in ensuring learning and proactive patient risk mitigation. CPSA facility accreditation requirement to report certain post-surgical adverse events is an important mechanism alerting the Medical Director opportunities quality assurance and improvement at key intervals.

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2. College of Physicians & Surgeons of Alberta [College of Physicians & Surgeons of Alberta | CPSA](#)

Disclosure of Interest: None Declared

Experiences of early-career health professionals in the WiSDOM cohort study of their clinical practice environments in South Africa: (2010) Laetitia Charmaine Rispel

ISQUA2024-ABS-2010

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Introduction: There is global recognition that the health workforce is essential for high-quality Universal Health Coverage (UHC), with increasing scholarly attention on positive practice environments. Such environments strive to ensure decent working conditions, and optimal physical and mental well-being of healthcare providers, thus enabling patient safety and quality health care. However, knowledge gaps remain on early-career health professionals' experiences of their clinical practice environments in sub-Saharan Africa.

The aim of the study was to examine and compare the experiences of early-career health professionals in the WiSDOM cohort study of their clinical practice environments in South Africa.

Methods: WiSDOM, a prospective longitudinal cohort study that commenced in 2017, consists of eight health professional groups: clinical associates, dentists, doctors, nurses, occupational therapists, oral hygienists, pharmacists, and physiotherapists. Since the first follow-up study in 2018, we collect information annually on perceived workload (5-point Likert scale from very light to very heavy), availability of medicines and equipment for patients in their care in the month preceding the survey (Yes or No), and their satisfaction with the clinical practice environment (score out of 10).

Differences between the professional groups were compared using proportions for categorical variables and means for numerical variables. We used multiple linear regression to investigate factors associated with the cohort's experiences of their clinical practice environments.

Results: In 2022, the mean age of the cohort was 28.9 (± 2.1), the majority (77.7%) were less than 30 years old, and female (74.2%). Notwithstanding variations across the eight groups, in 2018, 69.2% of the cohort members reported a heavy workload, compared to 60.0% in 2022. In 2021, 80.7% of those cohort members in the public health sector reported that the facility experienced lack of medicines for their patients in the preceding month, compared to 21.8% of those in the private health sector. Similarly, 83.8% of those working in rural areas reported lack of medicines, compared to 51.3% in urban areas.

The trends in the cohort's satisfaction scores with the clinical practice environment have remained constant at around 6.85 out of 10. The regression analysis showed that experiences of clinical practice environments were influenced by professional category, and work setting.

Conclusion: Given the centrality of the workforce for quality care and patient safety, the study findings underscore the need for positive clinical practice environments for early-career health professionals in South Africa.

Disclosure of Interest: None Declared

Building an authorising environment to enable large-scale change programs: learning from an Australian statewide initiative: (2188) Janet C Long

ISQUA2024-ABS-2188

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Introduction: Transforming a health system through implementation of interventions across multiple sites promises rapid and meaningful change but is notoriously hard to do. Between 2017 and 2021 the Ministry of Health in New South Wales, Australia launched a large-scale improvement initiative called Leading Better Value Care (LBVC). The goal was to improve patient and clinician experience and outcomes by increasing the efficiency and effectiveness of care. All of the state's public hospitals (n=221) were included and multifaceted interventions across a range of high prevalence conditions were implemented. Conditions included chronic heart failure, diabetes, osteoporosis and end stage kidney disease. The aim of our study was to retrospectively examine the implementation of seven of these interventions using realist methodology, identifying particular contexts that enabled the system to successfully change. At the conclusion of the project, we identified four principles that we called "system enablers". The evidence showed that these principles were key factors that triggered meaningful change in this whole of system initiative. Here we report on the first principle: *build an authorising environment*.

Methods: The realist study set out to show what implementation strategies worked for whom, under what circumstances. Data was drawn from two literature reviews on implementation of large-scale, multi-site hospital initiatives, a review of LBVC program documents, and informal discussions with 16 key stakeholders (initiative designers) on how they thought the implementation would work in practice. Interviews with 56 stakeholders including initiative architects, support officers and implementers were then undertaken. From this, 42 context-mechanism-outcome statements were crafted to tease out the circumstances and mechanisms that led to desired or undesired outcomes. These findings were ratified by three panels of experts (n=51). Finally, this huge body of synthesized data was interrogated to distil the guiding principles, the "system enablers". Ethics approval was granted by University and Local Health Districts. The project was funded by a Medical research Futures Fund grant (1178554).

Results: We define an authorising environment as the structures, rules, processes, and people who can grant permission or influence system-wide change. Change is facilitated through top-down and horizontal pressure created by people at all levels of the system. The authorising environment was built through: (i) signed formal service level agreements between the Ministry of Health and chief executives of each district providing certainty of resources, flagging the program as a statewide priority, defining goals and accountabilities; (ii) statewide clinical support agencies provided officially sanctioned peer-mentoring activities, including cross site comparisons, as well as tools, advice, and data; (iii) clearly communicated sponsorship and support from the heads of an organization, unit, or

team fostered engagement and commitment to the change from implementers at the hospitals (iv) permission and support from all levels for use of local adaptations to reach the standardised outcomes. These elements were seen to mitigate common barriers to change. Examples include: consistent and clear authoritative messaging around the project mitigated the barrier of uncertainty or cynicism that the necessary resources for change would be provided. Formal permission encouraging adaptation assured implementers that their site's constraints and the clinicians' local expertise were acknowledged and it was not a one-size fits all program.

Conclusion: Authorising environments enable large-scale change by formalising issues that can be perceived as uncertain by the implementers (e.g., funding, staffing, targets and accountabilities). It also clarifies roles, expectations and acknowledges the expertise of local implementers through encouraging diverse approaches to reach the agreed targets.

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Disclosure of Interest: None Declared

Polypharmacy measurement in aged care settings: discrepancies between prescribed and administered polypharmacy rates have implications for quality indicator reporting guidelines: (1745) Nasir Wabe

ISQUA2024-ABS-1745

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Introduction: Polypharmacy (the concurrent use of multiple medicines) is prevalent in aged care homes, where residents are more likely to have several chronic health conditions that are treated with multiple medicines. Suboptimal prescribing and inappropriate polypharmacy in aged care settings present significant safety concerns and increase the risk of residents experiencing medicine-related harms. Polypharmacy is frequently used as a quality of care indicator in aged care settings, despite being poorly defined. The extent to which the marked variability in reported polypharmacy rates may be due to different definitions and in particular the use of different data sources, e.g. using records of prescribed versus administered medicines, is unknown and has implications for monitoring changes in quality of care and benchmarking between aged care facilities. We aimed to determine polypharmacy rates under different scenarios, using electronic data records of prescribed and administered medicines from 30 residential aged care facilities.

Methods: A longitudinal cohort study of 5,662 residents in New South Wales, Australia. Polypharmacy rates were calculated in 2-weekly intervals from Jan 2019 to Sep 2022, providing 156 assessment time points. Twelve different polypharmacy rates were computed from prescribing and administration data

and polypharmacy definitions that included different combinations of items: *medicines and non-medicinal products*, *any medicines*, and *regular medicines* and four time frames for data review: one-day, one-week, two-weeks, and four-weeks. Longitudinal predictors of discrepancies between prescribed and administered polypharmacy were identified using GEE models.

Results: Polypharmacy rates ranged from 33.9%, for a one-day review of administered *regular medicines*, to 63.5% for prescribed *medicines and no-medicinal products* that included a four-week review period. At each assessment time point, the differences between polypharmacy rates for prescribed and administered medicines were consistently more than 10.0%, 4.5%, 3.5%, and 3.0% respectively with one-day, one-week, two-week, and four-week review period. Residents with dementia had a reduced likelihood of polypharmacy discrepancies, while residents with diabetes had twice the likelihood of discrepancies in prescribed and administered polypharmacy compared to those without.

Conclusion: Polypharmacy rates are highly variable when calculated using either prescribing or administration data, different time frames for data review, and the inclusion criteria for medicines. We recommend a more consistent approach to the measurement of polypharmacy in aged care settings to enable more meaningful reporting and appropriate quality of care benchmarking.

Disclosure of Interest: None Declared

Implementing the National Policy for Quality in Healthcare for Malaysia: Tracking the First-year Progress: (2051) Samsiah Awang

ISQUA2024-ABS-2051

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Introduction: In October 2021, Malaysia launched its new National Policy for Quality in Healthcare (NPQH), a country-level document that provides an official, explicit statement of the policy and strategies required to enhance the quality of Malaysia's healthcare system. The NPQH delineates seven Strategic Priorities (SPs) with a total of 47 agreed indicators to monitor the progress of NPQH implementation over 5 years (2022-2026). Of those indicators, some are continuously tracked throughout the entire period, while others are specific to a particular year. This paper assesses the first-year implementation progress of the SPs, identifies implementation challenges and potential improvement solutions.

Methods: An official request was sent in February 2023 to the quality focal person of various divisions and programmes within the Ministry of Health Malaysia (MOH) to obtain data for 34 indicators monitored in 2022. Each indicator, with its unique definition and standard, required numerical values for numerator and denominator, presented as either number or percentage. The data were captured

using REDcap, with the indicator's definition embedded in the application to assist in reporting. User feedback was obtained intra and post data reporting process to improve data validity. The focal person was contacted to clarify any query or incomplete data, and cross-verification was applied when necessary. Data were analysed and presented to the stakeholders during a meeting in June 2023. Stakeholders' inputs during the facilitated discussion were gathered to identify areas for improvement in data collection and implementation.

Results: Sixteen divisions/programmes submitted data, yielding a response rate of 89%. Of 34 indicators, 22 successfully met their targets, accounting for a 65% success rate. Indicators under the SP capacity and capability, and SP communication and engagement of stakeholders showed the highest achievement, while SP governance and SP monitoring and evaluation need further improvement. Unclear definitions and accountable divisions/programmes for reporting were among the challenges identified. A unanimous consensus was reached on the need for a comprehensive indicators dictionary, serving as a guide for improvement in data collection.

Conclusion: Both data submission and indicators performance show acceptable achievement of more than 60% in the first year of implementation. Tracking NPQH performance identifies gaps in reporting and implementation while generating valuable opportunities for peer learning across divisions/programmes. Areas for further development include a complete dictionary to improve the quality of reported data. This internal assessment fosters a collaborative spirit that bridges programmes silos, accelerates improvement, and enhances the quality of healthcare delivered to the clients.

Disclosure of Interest: None Declared

Lightning Talks

Multiple strategies to improve sarcopenia for nursing home residents: (1209) Chia-Ming Chi

ISQUA2024-ABS-1209

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Introduction: Sarcopenia is an acknowledged geriatric condition characterized by aggressive loss of muscle mass and function. The high prevalence of sarcopenia has been found to affect as many as 25% to 73.7% of residents at nursing homes.¹ Sarcopenia not only impairs physical function but also lowers the quality of life of the elderly. A number of factors have been associated with sarcopenia, such as aging, chronic illness, malnutrition, and a lack of physical exercise. We initially scoped this investigation

based on the prevalence of sarcopenia among nursing home residents. Our objective was to improve the sarcopenic condition of nursing home residents by implementing various tactics and interventions.

Methods: The gross motor function categorization system (GMFCS) was used to assess the physical and muscular state of 346 individuals in total. We also evaluated the inhabitants of nursing homes in terms of their capacity for training and learning. Participants with physical limitations, those unable to participate, or those with compromised cognitive ability were not allowed. A total of sixty-one walkable GMFCS level 1–3 participants were screened. To assess sarcopenic state, handgrip strength, 5-times chair stand test, and bioelectrical impedance analysis were performed on seven male residents (41%) and ten female residents (59%) (Figure 1). In this sarcopenia improvement project, we implemented two main strategies: "Let's eat well-modification in diet and Chinese herbal food" and "Let's do it-3 weeks exercise training award program."

Results: Participants in the "let's do it-exercise program" were encouraged to work out for an hour, four days a week. We observed the best-performing muscle strength changes in a 4-month period follow-up. In the handgrip assessment, it increased from 21.2 ± 2.3 to 22.7 ± 3.7 ($p < 0.001$) in males, and for females, it increased from 12.2 ± 3.9 to 12.3 ± 4.7 ($p = 0.012$). The male movement time decreased from 15.5 ± 4.6 sec. to 9.3 ± 2.1 sec. ($p = 0.005$) and the female movement time decreased from 17.9 ± 1.8 sec. to 15.9 ± 2.5 sec. ($p = 0.024$) for the five chair stand tests. Nonetheless, there is no discernible variation in bioelectrical impedance analysis (BIA) between the pre- and post-intervention values.

Conclusion: Sarcopenia is a complex and multifactorial disease. To date, only a few pharmaceutical medications have demonstrated promising outcomes in treating or minimizing symptoms. A recent system review indicated different exercise regimens have differing effects on physical performance in sarcopenia patients.² Daily exercise and training considerably improve the handgrip and 5-times chair stand test scores of the nursing home residents in our study. It is advised that senior citizens should follow a nutritious diet and regular exercise regimen to increase their muscle power.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-1344

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Introduction: Introduction-

Healthcare industry around the world thought they were planning for resilience. But nobody was prepared for Covid-19. The way healthcare systems around the world suffered shone a spotlight on processes and systems, revealing vulnerabilities and flaws we overlooked. We, at Apollo hospitals, decided that there is an immediate need to bring changes in our facilities making us more resilient, agile and customer-centric. To bring significant systemic changes, improve existing processes, train staff into engaged caregiver and initiate digital initiative to make our facilities future ready. This resulted in conceptualization of the initiative 'Apollo Lakshya'. A 250 bedded hospital was selected.

Objectives-

Since the emergence of Covid-19, health care systems all across the globe were overwhelmed by the patient volumes they had to handle. With such a situation, patients and their attendants coming to the hospital wanted smaller queues and lesser crowd in front of various desks, outpatient areas, pharmacies and diagnostic areas. Less waiting time for various processes in place at the facility were sought after as well. Patients wanted to keep the touch points to a minimum while they were in the system. While brainstorming about the possible solution, we were also aware that once the situation will get under control, patients who adopted to digital healthcare solutions for the convenience and flexibility, will find it little hesitant to switch to old manual measures and would expect better service.

Methods: Materials & Methods-

Three stages of the projects- Stage 1, stage 2, stage 3.

Stage 1:

- a. Digital visitor pass for the patient attendants to control crowd
- b. Self-registration kiosks for the patients for contactless registration
- c. Staff carrying payment QR codes behind their ID cards for easier and contactless billing

Stage 2:

- a. Red button- initiative for OP patients to get our immediate attention
- b. Bedside admission and billing to reduce touch points for patients
- c. Pharmacy and investigation billing floaters for easier billing and to reduce waiting time
- d. OP token system and automated vital checking machine to control crowd and reduce touch points

e. Investigation scheduler for smaller queues

Stage 3:

a. Discharge TAT reduction for both cash and credit patients

b. Live CPOE (Computerised Physician Order Entry) tracker to prevent investigation revenue leakage

c. OP CSP (Care Suite Persona) for digital prescription by doctors

Results: Results-

Apollo Lakshya is a platform through which we want to showcase that providing exceptional customer service is the future of healthcare sector and the digital transformation is the way to reach there. In this pursuit, we surpassed our own expectations on multiple fronts.

- Introduction of bedside admission and billing for patients and current compliance at 100% for single beds and above.

- Introduction of bedside discharge for patients and current compliance at 100% for single beds and above.

- Discharge TAT for cash patients brought down from 408 minutes to 89 minutes.

- Discharge TAT for credit patients brought down from 771 minutes to 270 minutes

- Revenue leakages brought down from 65% to 15%.

- Introduction of investigation scheduler for patients and 100% compliance for patients at present.

- Introduction of Pharmacy floaters for easier billing, smaller queues and less waiting time at Pharmacy.

Conclusion: Apollo Lakshya, that started as a pilot project in Apollo Hyderguda, a 250 bedded hospital, has been a humongous success, which can be evidenced through the hospital's Google rating which increased from 3.4 in June 2021 to 4.7 currently. With this success, the project is now being taken up in 6 more hospitals, with multiple other hospitals under discussion for implementation as well. We aspire to implement this project on all our units with 100 beds or more in upcoming 5 years, and ultimately, to all our units.

Disclosure of Interest: None Declared

ISQUA2024-ABS-1270

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Introduction: The patient discharge process is a crucial aspect of healthcare delivery, as it determines the quality and continuity of care for the patient after leaving the hospital. However, the discharge process is often fraught with challenges, such as delays, errors, miscommunication, and dissatisfaction among patients and staff. To address these issues, our project aims to transform the discharge process from a one-way transaction to a two-way conversation, involving the patient and the family as active partners in the discharge planning and education. By doing so, we hope to achieve a well-planned, quick and seamless discharge experience that meets the clinical and non-clinical needs of the patient and the family, and creates moments of tender loving care.

Our project is based on the following key objectives:

- To achieve a discharge process turn-around time of less than 2 hours (self-pay patients) and 4.5 hours (credit/insurance patients) respectively
- To ensure a detailed discharge counselling is provided to the patient
- To complete all the discharge related paperwork at the patient's bedside
- To ensure all paramedical support is planned to facilitate the patient discharge
- To ensure the patient/attendant is appraised on the expected bill
- To ensure the post discharge treatment plan is scheduled and explained
- To bid a fond farewell to the patient/family and create moments of tender loving care

Methods: Methods: Improving Patient Discharge Journey

1.

Experimental Design:

- Conducted gap analysis to identify discharge process inefficiencies.
- Implemented a digital transformation plan with EMR integration.
- Executed a comprehensive training program for all stakeholders.

2.

Analytical Techniques:

- Mandated discharge planning on the day of admission.
- Established interdisciplinary SPOCs for real-time monitoring.
- Introduced mobile billing and insurance counters for efficiency.

3.

Statistics:

- Defined KPIs, including turnaround time and patient satisfaction.
- Monitored compliance across 40 units with statistical tools.

- Analyzed data for continuous improvement.

-

4.

Continuous Improvement:

- Implemented a rewards system and weekly huddles for motivation.
- Adapted strategies based on feedback and statistical insights.

Results: This drive helped us improve our patient engagement and helped us establish a sense of trust. We had received numerous testimonials from the patients, appreciating the effort. The fond farewell initiative has been an emotional binder for the patient with brand “Apollo”.

The following are few numbers at a group level across all the units;

All 40 units of Apollo hospitals group have implemented the initiative with an overall compliance of 76%

Discharges prior to 1pm had increased to an average of 56% (May 23) from a meagre 32% (Apr 22)

All bill related queries at the time of discharge reduced by 53%

Patient satisfaction score (NPS) on discharge experience has increased to 72 (May 23) from 58 (Apr 22)

Patient Loyalty index has increased to 83% (May 23) from 78% (Apr 22)

A reduction in discounts/non-payables by 13% between Apr 2022 and May 2023

Image:



Conclusion: In conclusion, the initiative to enhance the patient discharge journey through a comprehensive and patientcentric approach has yielded significant and sustainable improvements. The combination of a thorough gap analysis, digital transformation, and a disciplined training program has resulted in a cultural shift towards proactive and compassionate patient care. Continuous improvement remains at the forefront, as evidenced by the rewards system, weekly huddles, and adaptive strategies based on feedback and statistical insights. This not only sustains the progress made but also fosters a culture of ongoing excellence and patient-centered care. In essence, the initiative to decode the enigma of the patient discharge journey has not only met but exceeded expectations. The positive impact on patient engagement, satisfaction, and loyalty reflects the success of the project in creating a more efficient, compassionate, and patient-friendly healthcare environment. As we celebrate these achievements, we acknowledge that the journey is ongoing, and the commitment to continuous improvement remains steadfast.

Disclosure of Interest: None Declared

Towards patient-centred communication in the management of older patients' medications across transitions of care: A focused ethnographic study: (3004) Guncag Ozavci

ISQUA2024-ABS-3004

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Introduction: Communication about managing medications during transitions of care can be challenging for older patients related to complex medication regimens and multiple medication changes during hospitalisation. Past work highlighted that links between communication breakdowns and medication incidents in older patients occur mainly at discharge or in the post-discharge period. Little attention has been paid to exploring communication strategies facilitating patient-centred

medication communication at transitions of care from a discourse-analytic perspective. The objective of this study was to explore, through a discursive lens, strategies that enable patient-centred medication communication at transitions of care.

Methods: Interviews, observations and focus groups were analysed utilising Critical Discourse Analysis and the Medication Communication Model following thematic analysis. Data collection was undertaken in eight wards across two metropolitan health care settings, including acute and geriatric rehabilitation hospitals in Australia.

Results: Fifty older patients and 31 family members participated in semi-structured interviews, and 203 hours of observations were conducted. In all, 111 older patients were observed, and 20 older patients and 13 family members participated in focus groups about medication communication across transitions of care. Patient preferences and beliefs about medications were identified as important characteristics of patient-centred communication. Strategies included empathetic talk prioritising patients' medication needs and preferences for medications; informative talk clarifying patients' concerns; and encouraging talk for enhancing shared decision-making with older patients. Challenges relating to use of these strategies included patients' hearing, speech or cognitive impairments, language barriers and absence of interpreters or family members during transitions of care.

Image:



Conclusion: Missed opportunities existed for health professionals to adopt patient-centredness in medication communication. Health professionals should explore older patients' preferences for involvement in medication decisions, their previous experiences, and beliefs about specific medications soon after their admissions to the hospital setting so that they can adopt more individualised communication strategies (which could include informative, empathetic and encouraging talk) based on patients' individual needs and characteristics. Communicating about medications needs to be seen as everyone's responsibility during patient's hospital journey. Additionally, organisational efforts are required to facilitate interpreter and family involvement in the medication decision-making process for older patients with cognitive declines and different language backgrounds.

Disclosure of Interest: None Declared

The Risks of Patient Safety caused by Information Technology-preliminary results in Taiwan: (1447) Han-Chi Chung

ISQUA2024-ABS-1447

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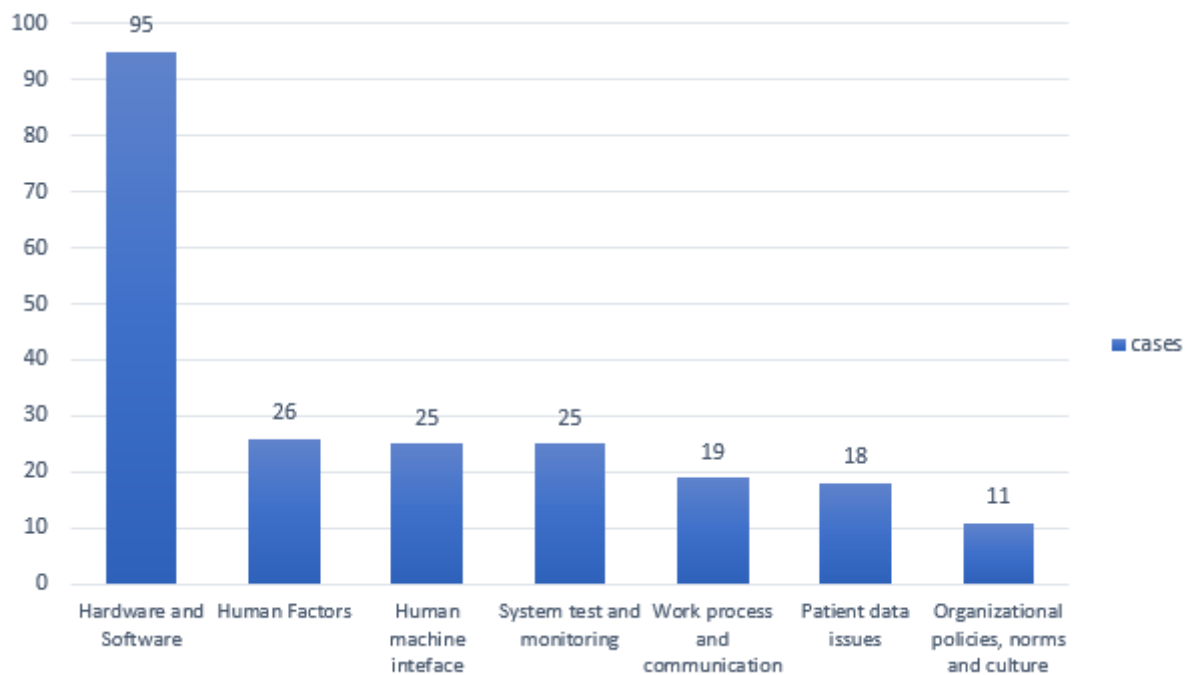
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Introduction: In recent years, the rapid development of health information technology (HIT) has been noted widespread implementation of information technology in hospitals to alleviate clinical staff workload and enhance management and operational efficiency. However, with the integration of HIT in healthcare, there are a growing number of HIT-related incidents affecting patient safety. The Emergency Care Research Institute (ECRI) in the United States annually publishes the top 10 health technology hazards, highlighting the risks associated with medical technology. In Taiwan, the Ministry of Health and Welfare emphasizes the importance of establishing a system for reporting and managing HIT-related patient safety incidents as part of the national patient safety goals.

Methods: To raise awareness and the importance of the patient safety risks associated with medical technology in healthcare, the Joint Commission of Taiwan collaborated with ECRI in 2020 to establish the nationwide "Information Technology-related Patient Safety (ITPS)" learning platform. Through this voluntary reporting and learning platform, hospitals can report issues related to information technology systems, equipment, operations, connectivity, and information security. Reports are analyzed by healthcare information experts who identify root causes, suggest improvement measures, and facilitate inter-hospital experience exchange and sharing.

Results: This study analyzed 113 cases reported from 23 hospitals participating in the ITPS platform from 2021 to 2022. The top three categories of incidents were medication events (43.4%), laboratory/diagnostic pathology events (23.9%), and clinical treatment and care events (19.5%). Among medication events, most are related to the physician prescription interface, such as too much reminder information. Classified by the event-related information systems/technologies, the top three were information system issues (51.3%), system interface issues (14.2%), and system operation issues (11.5%). Distinguishing the impact on patient safety caused by the incident based on the degree of harm, 12.9% were minor injuries, and the rest were mostly no harm (54.7%) and near misses (32.4%). Among information system issues, most occurred in healthcare information systems such as computerized provider order entry, pharmacy, and laboratory information systems (59.2%), followed by clinical documentation systems (28.6%), the possible reasons for the incident are shown in Figure 1. Our platform has announced six systematic learning cases in the past two years, including electronic signature specifications, medical record consolidation operations, complex prescription issuance (such as chemotherapy, TPN), interfaces between different systems, interface design, and data transmission between medical devices and the information system.

Image:



Conclusion: Healthcare information technology is complex, and information capacity varies among hospitals. Successful HIT implementation relies on effective communication and collaboration among multidisciplinary teams, active user participation in workflow design, and consideration of human factors and safety issues. Based on the literature, 75% of HIT-related patient safety incidents are preventable. However, people are not sufficiently aware of the risks associated with HIT in the medical field. The ITPS platform facilitates the flow of information about common risks and hazards in hospitals. It allows experts to consult and discuss cases and encourages sharing and learning of best practices between hospitals. As a result of this collaborative effort, we will develop systematic guidelines to prevent the recurrence of similar problems and safeguard patient safety.

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Disclosure of Interest: None Declared

To Determine Nurses' Attitudes Towards Convicted Patients: (2691) Hanife Cakir

ISQUA2024-ABS-2691

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Introduction: Quality healthcare service delivery and patient safety are affected by the healthcare professional's attitude towards the patient. The aim of the study was to examine nurses' attitudes towards convicted patients and to determine whether they affect nursing care and patient safety.

Methods: This descriptive phenomenological qualitative study aimed to explore nurses' approaches. The study collected data via semi-structured interviews and reached out to 40 nurses via snowball sampling. MaxQda software program was used for content analyses. After the analysis, the themes were determined by coding. Ethics approval was obtained. Before the interviews, verbal consent was requested and recorded.

Results: It has been observed that nurses have negative attitudes towards convicted patients and have behaviors that threaten patient safety. It has been determined that nurses do not want to care for patients who are especially guilty of murder, rape, abuse and rape, engage in harmful behavior and do not want to communicate effectively.

Conclusion: It was determined that the negative attitudes of nurses did not ensure the safety of patients and that patients had access to low-quality health care. These attitudes cause low-quality health outcomes, negative patient experience, and failure to ensure patient safety

Disclosure of Interest: None Declared

How we can learn from mistakes - health and social care safety investigation as a fostering patient and client safety: (3130) Hanna Tiirinki

ISQUA2024-ABS-3130

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Introduction: It has been stated that over 1 in 10 patients continue to be harmed due to safety lapses during their care. There is no available estimate as to how many clients' social services are subject to harm or safety deviation. Safety Investigation Authority, Finland (SIAF) has launched an investigative branch tasked with investigating health and social care accidents and serious so-called never events in 2021. The branch investigates both events with far-reaching consequences and accidents suffered by individual clients or patients. The purpose of a health and social care safety investigation is to improve

patient and client safety as well as general safety of the health and social care system and services. Recommendations intended to prevent the reoccurrence of similar incidents and decrease the number of incidence of accidents in general stem from each safety investigation.

Methods: Safety investigations are conducted independently and objectively applying investigation methods from traditional safety critical fields, such as aviation, railroad or maritime safety. An investigation team appointed for each specific health and social care investigation determines the course, causes and consequences of the events. It also determines whether management, supervision and auditing has been arranged and performed appropriately. An investigation includes investigating the scene of the accident, interviewing those involved and consulting documents on, for example, the organization being investigated, its operations, best practices of client and patient safety. The team also has the right to obtain necessary client and patient records, as well from private health and social care providers and units as individual health and social care professionals.

Results: Several health and social care safety investigations have been completed by SIAF. The investigations have focused so far on elderly home care and nursing care, health care information systems, psychiatric care, drug addiction treatment for young people, and medication errors in hospitals and pharmacies. The national safety recommendations are based on the results of investigations. The recommendations have dealt with, among other things, the re-evaluation and development of instructions, procedures and resources. In addition, some recommendations are targeted at the level of national legislation.

Conclusion: An independent investigation is an important tool to promote client and patient safety as well as an excellent way to learn from mistakes. The paramount aspect of a safety investigation is that it is never done in order to portion blame or seek a culprit. An independent investigation not only promotes safety, but also creates an open and transparent operating culture. Monitoring the implementation of the safety recommendations issued in safety investigations is of utmost importance in order for the safety investigations to have an impact. Sharing the lessons learned from safety investigations between different countries is very valuable.

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Disclosure of Interest: None Declared

Registration of indicators across ten patient safety themes – The status a decade after the implementation of the Dutch National Patient Safety program: (2874) Hanneke Merten

ISQUA2024-ABS-2874

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Introduction: In 2008 all Dutch hospitals jointly committed to participate in a national patient safety improvement program. This VMS-Safety Program included the implementation of a safety management system in each hospital. Also, improvement measures and registration on quality indicators for ten themes were implemented to support the reduction of unintended preventable harm in hospitals (1). Examples of themes are reducing the number of wound infections after an operation and identifying and treating pain at an early stage. However, more than 10 years have expired since the VMS-program, and scientific knowledge underlying the quality indicators described in the ten themes has developed. Additionally, registration burden and selection of valuable quality indicators have become important themes within healthcare. Therefore, the aim of this study was to gain insight into the considerations, structures and methods used within hospitals to keep registrations on quality indicators related to the ten themes up to date, relevant and of added value.

Methods: This study consisted of two phases. First, desk research was conducted to study the current status of evidence underlying the quality indicators for the ten themes. Second, we interviewed quality advisors within hospitals and private clinics in the Netherlands. Participants gave written and verbal informed consent to participate in the study and received a summary for member checking. The semi-structured interviews included topics on the considerations, structures and methods for keeping registrations on quality indicators related to the ten themes up to date, relevant and of added value. A thematic analysis with an inductive approach was used. Full data collection and analysis will be completed in April 2024. The ethics committee of Amsterdam UMC declared that the Medical Research Involving Human Subjects Act did not apply.

Results: Since the implementation of the ten safety themes and the related indicators, new guidelines and indicators have been developed related to several themes. Preliminary results show that although the name VMS-safety is still often used, the extent to which quality indicators are still registered according to the original description varies widely between themes and hospitals. Several indicators have been modified in line with new evidence and to make them more useful in daily practice, for monitoring or external accountability, their status is often tracked in a document management system. Different strategies were mentioned for keeping these quality indicators up to date, for example by appointing a specific person with extensive knowledge, forming working groups around themes or indicators or signal within the quality department whether an indicator should be updated. Quality advisors recognized that the themes had brought improvement in hospitals in the past ten years, but that discussion on changing or discontinuing registrations was sometimes difficult because they provide a sense of control and care providers are familiar with the ten themes. Therefore, quality advisors emphasized the importance of identifying and prioritizing high-risk processes that may have become more urgent and to actively redirect attention and registration towards them, going beyond the scope of the original ten themes outlined in the national patient safety program.

Conclusion: The interviews show that the ten themes from the national VMS-safety program and registrations on the quality indicators within the themes were experienced as a useful national starting point for safety improvement. Indicators have been modified within hospitals over time to fit with their specific practice and relevance. Since several of the improvement measures from the ten themes have been structurally implemented in the care processes, it is important to keep evaluating and discussing whether continued registration on the related indicators is still of added value. Additionally, hospitals emphasize the need for a balance between identifying and monitoring high risk processes within care and minimizing additional registration burden for care providers.

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Disclosure of Interest: None Declared

Adverse events and screening on frailty indicators for older patients in Dutch hospitals: results of a retrospective record review study: (3347) Hanneke Merten

ISQUA2024-ABS-3347

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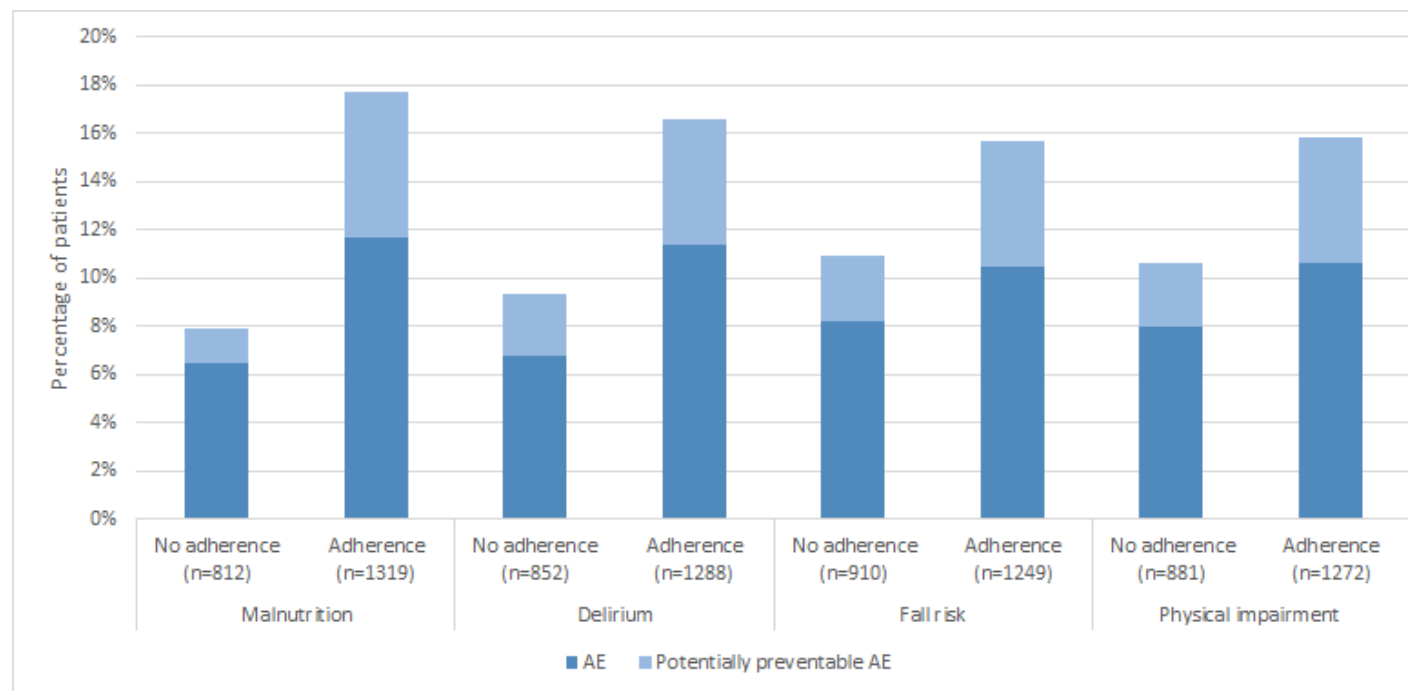
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Introduction: The proportion of older patients admitted to hospital is increasing in the Netherlands. Previous research has shown that adverse events (AE) occur relatively often in older patients. (1) Therefore, many improvement initiatives have been implemented in hospitals to reduce the risk of adverse outcomes in this patient group. One example is the implementation of a bundle of screening tools for older patients within the national patient safety program (VMS) that ran from 2008-2012 in the Netherlands. This bundle focused on screening for malnutrition, delirium, fall risk and physical impairment. A recent evaluation showed that in 2020/2021 74% of admitted older patients was screened on this bundle. (2) In the current study, we aim to explore the incidence of (preventable) AEs in older hospital inpatients and how these percentages vary between patients who were screened and followed up according to the bundle and those who were not.

Methods: In this retrospective record review study, a representative and random sample of 2.998 patients deceased in Dutch hospitals in 2019 was included. The record-review process consisted of two phases. First, a review on triggers for potential AEs was conducted by trained nurses. Additionally, the nurses registered whether the VMS-screening had been completed for each of the four indicators and if appropriate action had been taken in case of identified risks (adherence). Second, a thorough review was conducted by trained medical specialists for the records in which a trigger was identified. They determined whether an AE had occurred and if so, to assess its nature, preventability and potential contribution to the patient's death. Data were analyzed using STATAMP16. The ethics committee of VUmc declared that the Medical Research Involving Human Subjects Act did not apply.

Results: In total, the sample included 2,188 patients of 70 years and older, of which 291 patients experienced one or more AEs (13.5%; 95% CI=12.1%-15.2%). For 93 of these patients the AE was potentially preventable (4.1%; 95% CI=3.3%-5.1%) and for 69 patients the potentially preventable AE contributed significantly to their death (3.1%; 95% CI=2.4%-4.0%). For each indicator, more than half of the patients of 70 years and older was screened and appropriate action was taken when necessary (adherence). Figure 1 shows the percentages of AEs and preventable AEs for each indicator. The percentages were consistently higher in the groups where screening had been conducted and appropriate follow-up measures were taken (difference 4.8-9.8% for AEs and 2.5-4.6% for preventable AEs).

Image:



Conclusion: The results show that, in line with the previously mentioned study, the VMS-screening is registered and appropriate follow-up actions are taken for a substantial percentage of older patients. The majority of patients in the no adherence groups was not screened at all on the indicator(s) from the bundle. A potential explanation for the higher percentages of AEs and preventable AEs in the adherence groups may be that nurses make a substantiated decision not to screen, or register the results of the screening, when they assess a patient as low-risk. Further research is needed to investigate the potential relationship between screening and safety outcomes and the reasons underlying the decision whether or not to screen a patient.

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Disclosure of Interest: None Declared

Using Quality Control Circle to Optimise Hospital Pharmacy Inventory Management Processes-A Case Study of a Medical Center in Taiwan: (1207) Jing-Ying Huang

ISQUA2024-ABS-1207

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Introduction: Efficient management of medicines in a medical centre's pharmaceutical warehouse is crucial. This is why the use of modern logistics management techniques is essential. This QC circle brings together pharmacists, pharmacy clerks and IT professionals to achieve significant improvements in management standards and operational efficiency through a task-oriented QC story approach.

Methods: After analysing the current situation, the team identified six key areas for improvement. They analysed potential discrepancies, challenges, and strategies, eventually selecting eight core strategies for improvement. Based on current performance metrics, the daily time consumption for activities such as checking, accepting, shelving, and picking is measured at 1200 minutes. The team aims to improve operational efficiency by 10%.

The team used the PDCA (Plan-Do-Check-Act) cycle to implement successful scenarios for the eight improvement strategies.

Establishment of Fixed Open Shelves: Replacing mobile shelving with fixed shelving reduces occupational injury.

Electronicisation of shipping data: Suppliers are required to upload shipping data in the format provided, facilitating data integration.

Establish a system to track batch numbers, expiry dates and quantities: Implement a system to track batch numbers, expiry dates and inventory quantities. Improve management of expired and backordered products, improve inventory utilisation and digitise inventory information.

Introduction of electronic labels and a lighthouse system: Introduction of electronic labels and a lighthouse system linked to PDAs displaying electronic maps. Guide staff during picking, shelving and ad hoc requests.

Establish a closed-loop feedback system for checking, receiving, shelving and picking: introduce a step-by-step verification mechanism to ensure interlinked operations. PDAs identify picking lot numbers and expiry dates, ensuring first-in-first-out compliance.

Schedule picking tasks in the information system: Distribute tasks evenly based on the average number of workers for the day. The system interacts with PDAs to display tasks.

Placement of fixed shelves within the cold store: Create a cold store with fixed shelving to increase the storage capacity for refrigerated medicines and simplify cold store management.

Design training according to job roles: Plan training based on trainees' specific roles. Conduct Direct Observation of Procedural Skills (DOPS) assessments for operational skills.

Results: Primary goals:

Reduce daily work time from 1200 minutes to 705 minutes, achieving a 40% decrease.

The new system enables meticulous tracking and auditing of drug flow, reducing manual intervention and establishing an information closed-loop.

Improvement Benefits:

1. Reduction in labor operation time and paperless operations result in annual savings of approximately NT\$ 405,000.

Six Additional Benefits:

Reduction in drug search time from 115.0 seconds per transaction to 47.5 seconds per transaction (59% reduction).

The time taken to search for expired products per month has been reduced from 12 hours to 0 hours (100% reduction).

The time taken to enter the half-yearly inventory data was reduced from 4 hours to 0 hours (a reduction of 100%).

The production time for medication labels was reduced from 130.9 seconds per label to 10.0 seconds per label (a reduction of 92%).

The accuracy of the acceptance data increased from 96.0% to 99.9% (an increase of 4%).

Picking accuracy increased from 88.0% to 99.7% (12.5% increase).

Intangible Outcomes:

Average employee satisfaction score greater than 4.

Use human factors engineering to reduce the physical and cognitive strain on staff.

Real-time batch number and expiry date checks enhance patient medication safety.

Conclusion: Processes are standardised and incorporated into the pharmacy management operations manual. This improvement initiative can be extended to internal sub-warehouses within the hospital, ensuring accurate management of medicines throughout the hospital.

Disclosure of Interest: None Declared

ISQUA2024-ABS-3466

H. Mezeyd ^{1*} and I am part of QI team who worked hard in training , coaching and reviewing QI initiatives, who are : the lead : Dr. Haitham Al-dowiri , coworker: Ms. Rozalien Ayed

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Introduction:

The demographic comprising women of childbearing age, pregnant mothers, postpartum women, and children constitutes one of the largest segments within Jordanian community, necessitating sustained and consistent healthcare services. Health centers serve as crucial role in delivering these services. Consequently, our ongoing effort is to enhance the quality of care provided and enhance the proficiency of healthcare providers comprehensively and continuously. We aim to achieve this by empowering and building capacity the service providers with the expertise in quality methodologies, models and tools for data, indicators, and monthly reports on service provision. This approach allows for the identification of improvement opportunities and the subsequent implementation of scientific and straightforward quality improvement methodologies to enhance and refine service delivery

Methods: The Activity team closely collaborated with the Ministry of Health (MOH) and Rpyal Medical Services (RMS) to finalize the review of the current Quality Improvement (QI) structures, processes, data use, and quality tools, focusing on RMNCH services. The review highlighted the main challenges, identified areas for improvement, and determined priorities. The key recommendations were to establish Quality Assurance and Patient Safety (QAPS) teams and build their capacity for QI. in collaboration with the MOH/ Institutional Development and Quality Control (IDQCD) and the RMS Quality and Inspection Division, established 140 QAPS teams with 867 nominated members at the Activity's 140 health facilities from the MOH and RMS. The Activity aims to empower the QAPS teams to use health facilities' RMNCH data to find quality gaps, undertake root-cause analyses in their own contexts, and implement the solution(s) to address the identified quality problems by utilizing the POCQI model. The established QAPS teams consist of 153 midwives, 178 nurses, 262 physicians, 118 quality coordinators and 155 others. The Activity engaged MOH staff from the IDQCD and Woman and Child Health Directorate (WCHD) as facilitators for the training sessions to enhance their role in supporting QAPS teams at health facilities. In close collaboration with the MOH/IDQCD and the RMS Quality and Inspection Division, the Activity team developed QI training materials for both HCs and hospitals. The Activity adapted WHO materials and the POCQI training materials to Jordan's health care context, translated the materials into Arabic,

The POCQI model enables QAPS teams to use facility RMNCH data to identify quality gaps (problems or issues), undertake root-cause analyses in their own contexts, and identify and implement the solution(s) to address the identified quality problem related to RMNCH.

Point-of-care quality improvement (POCQI) is a systematic approach to identifying and solving problems and improving practices. It was developed by the World Health Organization (WHO), USAID, and the All-India Institute of Medical Sciences (AIIMS). It is a tested, commonsense approach to achieving incremental improvement in a short time using available resources. POCQI relies on the following four steps to address gaps between current practices and desired standards: (1) Identify a

problem and define the aim. (2) Analyze and measure the quality of care. (3) Develop and test changes to improve quality. (4) Sustain improvements.

Results: Results:

Throughout the period spanning 2022 to 2023, QAPS teams underwent rigorous training in the POCQI model, facilitated through a series of 40 workshops. Additionally, these teams received advanced training sessions focused on various quality dimensions, patient safety, and Lean management encompassing 45 workshops. Following the completion of these comprehensive training programs, QAPS teams were further supported by conducting four coaching field visits to each health institution, aimed at facilitating the development and implementation of quality improvement initiatives geared towards enhancing service delivery. This concerted effort culminated in the formulation and execution of a total of 303 distinct quality improvement initiatives, ultimately contributing to the enhancement of the quality of healthcare services rendered, as table 1, some of these QI initiatives presented in the first QAPS- Talks event

Table 1: Quality improvement Initiatives

QI Titles	Specifications	Number
Child health care	Include all child services provided:	88
	-Growth and development compliance	
	-Vaccination compliance	
	-Anemia screening compliance	
Reproductive & maternal	Include all maternal services:	194
	-Antenatal care	
	-Postnatal care	
	-Implementation Golden hour activities	
Neonatal care	Include all services provided to newborns in NICU	21
Total		303

Image:



Conclusion: It is not a study; it is activity to improve the quality of provided RMNCH services in Jordan by build the capacity of health care providers

References: Implementation experience of the WHO SEARO model of point-of-care quality improvement (POCQI). <https://apps.who.int/iris/handle/10665/337921>

Disclosure of Interest: None Declared

Using ultrasound guidance to reduce the rate of venous catheter repositioning: (2730) Hsieh Shih Wei

ISQUA2024-ABS-2730

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Introduction: Using ultrasound guidance to assist in the placement of venous catheters not only makes medical procedures faster and more accurate, but also reduces patient fear and pain, enhancing the quality of patient care.

Methods: In May 2021, our unit established the IV TEAM and conducted root cause analysis using fishbone diagram and verified the true causes using the Pareto 80/20 rule. According to literature, utilizing ultrasound-guided insertion for difficult venous catheterization can achieve a success rate of up to 92%. Analysis of our unit's data from March 2021 to April 2021 showed a catheter reinsertion rate of 61.2%, with 70% of patients having vascular fragility (37.5%) and severe edema (32.5%) as predominant factors. Therefore, strategies were formulated to address these issues, including the establishment of a dedicated intravenous catheterization team and the introduction of ultrasound equipment to assist with catheter insertion. It is anticipated that the reinsertion rate of venous catheters under ultrasound guidance will decrease to 27%.

Results: From March 2021 to April 2021, the catheter reinsertion rate in our unit was 61%. After establishing the IV TEAM in May, the reinsertion rate decreased from 61% to 14.9% from November to December, utilizing ultrasound guidance. The achievement rate was 135.38%, with a progress rate of 75.6%. Monitoring of effectiveness was maintained from December 2021 to May 2022, with a reinsertion rate of 13%, meeting the target value of 27%.

Conclusion: After establishing the IV TEAM, the average number of needle insertions for difficult venous catheterization decreased from 4 to 1. This resulted in a reduction of nursing hours spent on needle insertion by 1,752 hours per year and a saving of approximately 1,065,216 yuan in medical material costs annually. Not only did this alleviate patient anxiety and fear caused by catheter reinsertions, but it also addressed the challenges of inserting intravenous catheters in COVID-19 patients wearing level 3 protective equipment during the pandemic. Limited visibility and multiple layers of gloves made the procedure more difficult, but IV TEAM intervention reduced contact time with patients and improved needle insertion efficiency. Subsequently, efforts were made to enhance the capabilities of IV TEAM members through horizontal dissemination, making intravenous catheter insertion a distinctive feature of our hospital. This has led to quicker medical procedures, reduced patient fear and pain associated with needle insertion, and an overall improvement in the quality of patient care.

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Disclosure of Interest: None Declared

Improving Medication Safety for New Healthcare Staff with HFACS Human Factors Analysis and Experiential Activity Teaching: (1998) HsiuHsia Weng

ISQUA2024-ABS-1998

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Introduction: During the COVID-19 pandemic, a global health disaster, new nursing staff experienced significant workplace stress and obstacles to professional progress. Restrictions on in-person nursing education and clinical internships have a negative impact on their clinical skills, communication, and decision-making ability. Using the Human Factors Analysis and Classification System (HFACS), we discovered unsafe medication administration behaviors among these new employees, such as skill-based and decision-making errors, which were exacerbated by psychological stress, insufficient supervision, and organizational culture issues. These considerations compromised patient safety while also highlighting communication and psychological adaptation issues. We discovered key issues through qualitative interviews, including communication hurdles, information reception difficulties, fear, and difficulty with autonomous problem-solving and requesting support. In response, we offer support and training measures aimed at strengthening new nursing staff's clinical skills and confidence, increasing communication channels, and providing psychological support to increase their occupational adaptation and overall medical quality.

Methods: To address challenges faced by new nursing staff, our improvement plan identifies core issues: lack of operational skills, communication barriers, fear of the clinical environment, and insufficient clinical guidance and organizational support. The most critical issues identified were the lack of effective clinical guidance and support, followed by insufficient operational skills.

To tackle these issues, we propose the following improvement measures:

- Conducting consensus meetings for mentors to enhance their understanding and support for new staff.
- Joint medical team support for new staff through welcome ceremonies.
- Promoting teamwork and communication skills through team communication games.
- Implementing gamified teaching, such as medication administration games,.
- Introducing a dual mentor system for targeted guidance through assessment and the involvement of assistant mentors.
- Implementing a comprehensive mentorship mechanism and arranging "little angels" to provide constant support and guidance for new staff.

Results: This study implemented improvement measures to address new nursing staff challenges, aiming to boost their clinical skills, communication, and patient safety. Results showed high engagement in team activities (92.43% attendance, 100% satisfaction) and counselor meetings (83.72% attendance, 95% satisfaction), indicating the effectiveness of these measures. Over half of the

new staff (57.14%) benefited from a dual counselor system, enhancing foundational and communication skills.

Significantly, communication self-efficacy among new staff increased from 36.26% to 73.46%, and medication safety events caused by communication issues dropped to zero, markedly improving patient safety.

Conclusion: These outcomes demonstrate that through organizational support, targeted training, and team-building activities, it is possible to effectively improve the communication skills and clinical abilities of new nursing staff, thereby enhancing patient safety and the quality of care. The successful implementation of this improvement plan provides strong evidence on how to effectively support new nursing staff and improve the quality of healthcare services, offering a viable model and reference for similar future projects.

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Disclosure of Interest: None Declared

Measuring Health system performance; a new approach to accountability and quality improvement in Jordan: A qualitative study: (2797) Ibrahim Aqel

ISQUA2024-ABS-2797

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Introduction: Accountability refers to the relationship through which an agent's behaviour is evaluated against the predetermined standards. As described by (Emanuel and Emanuel, 1996a), accountability initiatives seek to ensure that all patients receive care that is aligned with established standards. In September 2020, the Jordan Strategy Forum published a report highlighting the various challenges faced by the country's healthcare system. challenges included: The lack of transparency and poor accountability, inadequate mechanisms for collecting data and publishing it, and the weak ability of local communities to call for accountability and determine priorities based on actual need. The report also indicated that performance and appraisal systems in the public health sector do not link performance to incentives, and there is a lack of systems that are designed to monitor and improve the performance of health sector employees. Based on the above data, there is a need for more investigation into the currently available accountability mechanisms, tools, and systems in the healthcare sector in Jordan. The primary purpose of this research is to explore and describe current

performance accountability mechanisms, systems, frameworks, and tools available in the health sector in Jordan, identify gaps, and guide health policy leaders during the process of reforming accountability in the healthcare sector in Jordan.

Methods: This study is trying to unfold and shed light on issues related to accountability in the health sector in Jordan, identify gaps, and guide health policy leaders during the process of reforming accountability. The researcher believes that the best choice of philosophy for this research is pragmatism. Qualitative research methods were employed to capture the rich experiences, and perspectives of various stakeholders, including healthcare professionals, administrators, service providers, and health policymakers. This research study utilized a qualitative research design, specifically employing in-depth interviews and focus group discussions. Approval to conduct the research was obtained from the Research Ethical Committee. The analytical techniques used included: Thematic Analysis which includes the identification of recurring patterns and themes in the data, and triangulation where regular meetings were conducted with professionals to discuss emerging themes, resolve discrepancies, and ensure intercoder agreement.

Results: What are the key factors that influence accountability in healthcare institutions in Jordan?

The in-depth interviews and focus group discussion analysis revealed several key factors including:

Legal and Regulatory Frameworks

Governance and Leadership

Transparency and Information Sharing

Patient Rights and Involvement

Quality Assurance and Performance Monitoring

Professional Ethics and Conduct

Stakeholder Engagement and Collaboration

Adequate Resources and Infrastructure

Continuous Learning and Improvement

Licensing and Certification.

Supervision and Peer Review

Complaint and Feedback Mechanisms

Peer Pressure and Professional Reputation

External Oversight

Clinical Governance

What are the current accountability systems, mechanisms, and tools available in the healthcare sector in Jordan?

Laws, bylaws, and regulatory legislations: such as the Jordan Public Health Law No. 47 of 2008, and the Medical and Health Liability Law No. 25 of 2018.

Healthcare Regulatory Bodies such as the Jordanian Ministry of Health, the Jordan Medical Council (JMC), and the Health Care Accreditation Council (HCAC).

Licensing and Certification

Health Care Accreditation

Clinical Practice Guidelines

Incident Reporting Systems

Patient Complaint Mechanisms to address grievances and concerns.

Performance Indicators and Quality Metrics: include patient satisfaction surveys, clinical outcome measures, infection rates, and adherence to best practices.

Electronic Health Records (EHR)

What are the gaps and challenges facing the current accountability systems available in the healthcare sector in Jordan?

The in-depth interviews and focus group discussion analysis identified the following Accountability System gaps:

- At the central ministry level: the gaps related to systems, policies, laws, legislation, regulations, and structures due to the absence of a national accountability framework, for clinical governance, and the lack of performance-based regulations for incentives, penalties, and benefits and the unavailability of unified Clinical guidelines at a national level and outdated job descriptions.
- At the facility level: the a lack of equal distribution of human and financial resources, a lack of adequate capacity-building and training, a lack of a structured performance-based supervision system, and a lack of mechanisms for linking performance to outcomes.
- At the service providers' level: the lack of updated Job descriptions and performance indicators based on competencies, inadequate work environment, the lack of incentive schemes, lack of needs-based capacity building, and absence of structured clinical/technical supervision.
- At the community level: the lack of effective Communication Channels and the absence of Public Performance Reporting.

What strategies, frameworks, and mechanisms can be proposed to enhance accountability in the healthcare sector in Jordan?

Based on the findings from the interviews and focus group discussion; a multi-level bottom-up and top-down framework for healthcare accountability in Jordan is suggested to be implemented. The framework suggests using specific accountability mechanisms at the following different levels:

Legislature Level (Parliament & Senate councils)

Central Government Level

Ministry of Health Central Level

Regulatory and Quality Agencies Level

Governorate (District) Level

Facility Level

Service providers Level

Service Recipients Level

Community Level

Conclusion:

In conclusion, this qualitative research study aimed to explore the concept of accountability in the health sector in Jordan. Accountability is a complex and multifaceted concept. The research revealed that accountability mechanisms in the Jordanian health sector face several challenges such as a lack of multilevel accountability mechanisms, and the presence of bureaucratic barriers. The study identified gaps at different levels in the central ministry, facility, service provider, and community. It also emphasized the role of different stakeholders in promoting accountability in the health sector. Recommendations stemming from this research include strengthening the capacity of healthcare professionals to understand and implement accountability principles, allocating sufficient resources, and fostering a culture of transparency and integrity within healthcare organizations. Overall, this qualitative research study sheds light on the challenges and opportunities surrounding accountability, it offers a foundation for further discussions and actions to enhance accountability practices and improve the overall quality of healthcare services in the country.

Disclosure of Interest: None Declared

Care Behavior Impact and Acceptability of Scope-Based Structured Point of care obstetric ultrasound (SPOUS) provided at Point of practice in Selected Rural Primary care setups in Ethiopia: (2816) Ishmael Shemsedin

ISQUA2024-ABS-2816

E. Abate^{1,*}, T. D. Darebo¹, Z. Seife¹, A. Kedir¹, B. Abera¹, A. Girum¹, B. Teklewold¹, I. Shemsedin¹ and Dr. Bethelihem Abegaz, Dr. Tsion Hiwot, Dr. Merry Miressa and Dr. Hayat Abdi are part of this working group.

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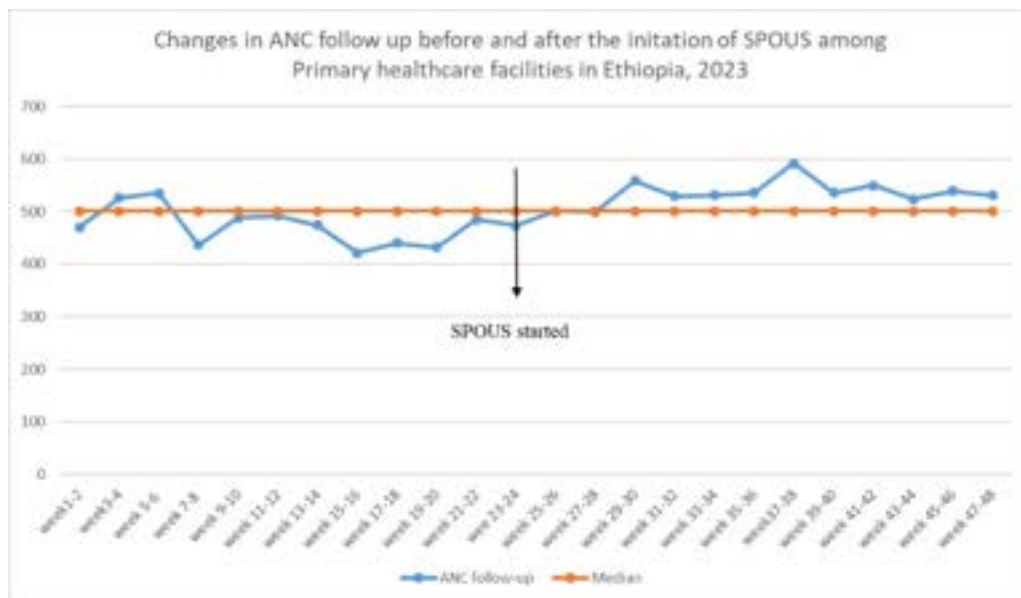
Introduction: The world health organization recommend at least one ultrasound assessment for all pregnant women before 24th week of gestation for better maternal and neonatal outcome. Resource limited settings however struggle to provide such care due to lack of adequate obstetricians and radiologist to preform the procedure. There have been successful reports of skill retentions after training midlevel professionals including midwives and primary care physicians to perform limited scope obstetric ultrasound. The successful skill acquisition, however, has not translated into effective ultrasound care access as a result of failure of the care system to learn to initiate and sustain the service. In this study, we evaluate the acceptability and Care behavior impact of a training package, SPOUS, that includes joint optimization of Intensive skill transfer at point of practice, Service management coaching, and Skill retention decision support design in selected rural primary care settings in Ethiopia.

Methods: The SPOUS training program consists of two main components: intensive training for 1 week, on-site training for 5 weeks, and finally competency measurement, which was determined using an objective, structured assessment of ultrasound skill (OSAUS) and a written exam. The curriculum integrates 1. Focused scope with structured intensive skill transfer at the setting of subsequent practice to ensure contextual fidelity 2. Ultrasound service management/improvement training and in-person coaching to initiate system learning 3. 25 videos in the two major languages in the country of Amharic and Oromifa to provide opportunity for continuous self-learning and decision support for skill retention and augmentation. We utilized the Kirkpatrick Four Level Training Evaluation Model to analyze reaction, learning, behavior, and result of the SPOUS training during, at the end, three and six months after completion. A pre-post evaluation was performed among 10 selected out of 54 im[plementation facilities in three regions of Ethiopia. Data were collected retrospectively for six months before (January 2023-June 2023) and six months after (July 2023-December 2023) the implementation. We conducted Kirkpatrick level three and level four assessments to measure changes in trainees' application of E-SPOUS, R-SPOUS, and D-SPOUS protocols; and measured intermediate maternal and fetal health outcomes. We analyzed the average change in the level of utilization and overall trend improvements using a run chart. Six data points above the median after the implementation of the intervention will be categorized as a statistically significant change. The SPOUS is a registered and accredited obstetric ultrasound course in Ethiopia.

Results: Over a period of six months, 9341 pregnant rural women underwent SPOUS scans. Among them, 214 cases of retained products of conception, 9 ectopic pregnancies, and 25 adnexal masses were diagnosed by employing E-SPOUS protocol for emergency personations; R-SPOUS protocol performed for routine antenatal assessment identified 24 cases of anencephaly and 20 cases of

hydrocephalus. D-SPOUS protocol utilized for decision making near term detected 97 cases of oligohydramnios, 53 cases of polyhydramnios, and 194 cases of non-reassuring fetal heart rate status. A significant increase was observed in the utilization of antenatal care, deliveries, and medical abortion services, whereas maternal referrals for ultrasound services decreased significantly. However, challenges related to the lack of supplies and maintenance of instruments were found to be obstacles to the sustainability of the observed improvements.

Image:



Conclusion: Implementation of the SPOUS curriculum that include focused and scope based structured skill transfer, system learning, skill retention and decision support design is acceptable to mid-level professionals; can be retained and improve care behaviour to diagnose and timely manage critical obstetric conditions. The introduction of SPOUS in PHC settings also led to increased utilization of safe maternal health services. Issues related to continuous supply of inputs and maintenance capacity need to be addressed. Further investigation are required to analyse the long term impact and sustainability of the SPOUS intervention.

References:

Disclosure of Interest: None Declared

NON-CLINICAL SPECIFIC INTERVENTIONS TO IMPROVE PATIENT SAFETY IN PERIOPERATIVE CARE PROCESS: AN UMBRELLA REVIEW: (2007) Janne Kommusaar

ISQUA2024-ABS-2007

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Introduction: In Europe around 10% of patients admitted to hospitals experience adverse events, and perioperative care is one of the most reported fields. Adverse events have been found to cause patient harm and increase costs, highlighting the need for tailored interventions. Non-clinical specific patient-safety interventions refer to interventions related to patient safety beyond direct patient care. This umbrella review aims to identify effective non-clinical specific interventions to improve patient safety in the perioperative care process in adult patients and to describe the quality of evidence of these interventions.

Methods: We carried out an umbrella review¹ with registration in PROSPERO (CRD42023397419). Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram was followed. We carried out both electronic and manual searches for systematic reviews and meta-analyses on interventions to improve adult patients' safety across the perioperative care process. Electronic searches were made in PubMed, Scopus, CINAHL, PsycINFO, and Cochrane databases. Manual searches were carried out in the reference lists of the included studies to identify additional relevant studies. Our inclusion and exclusion criteria were based on PICO. Reviews were included when published between 2012 and 2022, clearly described the used methodology, and involved more than one surgical subspecialty. The selection was done by two researchers' independent assessment and by a third reviewer if consensus was not reached.

Results: Based on the electronic searches, 4,609 publications were identified. After title and abstract screening, 133 publications were selected for full-text screening, out of which 32 met our inclusion criteria. After hand-searching the reference lists of included reviews, 30 studies were added. Altogether 62 systematic reviews and meta-analysis were included in the umbrella review. The overall methodological quality of the studies was moderate to high. Three types of non-clinical-specific effective interventions were identified: enhanced recovery after surgery (ERAS) or fast-track surgery (FTS), the use of checklists, and patient-related interventions. The first two are effective in improving general patient safety outcomes such as complications, infections, and length of hospital stay. While patient-related interventions such as music, aromatherapy, massage, educational interventions, mental simulation practices, psychosocial techniques, and psychological preparation have a positive impact mainly on patient-reported outcomes like pain and anxiety.

Conclusion: Several effective non-clinical specific interventions focusing on different patient safety outcomes can be deployed to improve perioperative care. The moderate to strong methodological quality of the included studies is in favor of the findings of this umbrella review. Most evidence for effective interventions was found for ERAS / FTS, the use of checklists and patient-related interventions. There is limited hard evidence to state which part(s) of the interventions have led to certain, specific improvements. Therefore, more studies are needed.

This research is funded by the European Union's Horizon Europe research and innovation programme under grant agreement No 101057825 (SAFEST project).

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Disclosure of Interest: None Declared

Determinants of Inpatient Satisfaction in a Post-Acute Care Rehabilitation Hospital in the US: (1988) Jing Xu

ISQUA2024-ABS-1988

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Introduction: Patient satisfaction has been a significant factor in determining individual hospitals' quality of care and a metric to help patients choose the right healthcare provider and facility. While ample research examines the factors affecting patients' experience of care in acute care hospitals, there is limited information on determinants of inpatient satisfaction for post-acute care facilities, especially in freestanding rehabilitation hospitals. This study aimed to examine how specific hospital service domains influence final Press Ganey (PG) scores, patient rating on the overall quality of care, and willingness to recommend the hospital to others in a rehabilitation hospital in the state of Florida, United States.

Methods: We utilized discharge data and PG patient satisfaction data from 2010 through 2019. The independent variables included the patient satisfaction ratings for each hospital service domain. Dependent variables were the final mean PG Score, overall rating of care, and the likelihood of recommending the hospital to others. Multivariate logistic regression was conducted to model the probability of "1" (extremely satisfied) versus 0 (good, fair, poor, and very poor), adjusting survey year, diagnosis program, discharge location, length of stay, average therapy minutes per day, age, and gender. No patient identification in the dataset, so the study was issued a Waiver of IRB review at the University of North Florida.

Results: The results of this study contribute to our knowledge of the major hospital service domain determinants of positive patient experience in a rehabilitation hospital setting. This study found the personal issues domain to be the most important factor in determining the final mean PG Score, overall rating of care, and likelihood to recommend the hospital to others, followed by physical therapist, nurse, discharge, and food domains. Within the personal domain score, pain control, staff promptness, and explanation upon arrival were areas identified as opportunities to make improvements that would

result in the greatest positive effect. Other areas identified for maximizing effect within the nursing care domain included nurse instruction for home care and satisfaction with the night nursing staff.

Image:

Table 1. Multivariate logistic regression (N= 4,785)

Odds increase with score changes in domain (PT)			
(5pts increase in)	Final Satisfaction Score	Overall Rating	Recommendation
Personal issue	83%	80%	54%
PT	28%	22%	12%
Nurse	26%	24%	13%
Discharge	16%	10%	11%
Doctor	12%	9%	11%
Food	7%	7%	8%
McFadden's R Square	0.51	0.60	0.52
Odds increase with score changes in domain (OT)			
(5pts increase in)	Final Satisfaction Score	Overall Rating	Recommendation
Personal issue	85%	85%	57%
OT	30%	14%	6%
Nurse	23%	22%	12%
Discharge	15%	9%	11%
Doctor	13%	9%	11%
Food	7%	7%	9%
McFadden's R Square	0.51	0.60	0.52

Conclusion: The results of this study contribute to our knowledge of the major hospital service domain determinants of positive patient experience in a rehabilitation hospital setting. The findings presented here may result in providing actionable insights that can be used to improve the patient experience. Focused strategic improvements based on survey results at individual healthcare facilities can improve patient experience scores, which may lead to better patient health outcomes.

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Disclosure of Interest: None Declared

Facilitators and barriers of critical care nurses' alarm customization on the physiologic monitor: An interpretive descriptive study: (3300) Liqing Yue

ISQUA2024-ABS-3300

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Introduction: Physiologic monitor alarms are frequent in the ICU and dominated by clinically irrelevant alarms, leading to severe alarm fatigue of critical care nurses and threatening patient safety. Alarm customization means that parameters are personalized and dynamically adjusted according to the patient's condition, which reduces clinically irrelevant alarms. Thus, customization may help solve the dilemma of alarm fatigue. However, little is known about the factors influencing the alarm customization of critical care nurses. This study was conducted to explore the facilitators and barriers of alarm customization by critical care nurses.

Methods: This descriptive qualitative study was conducted in 2023 using video-call interviews. Eighteen nurses were purposively sampled from nine intensive care units in a tertiary academic hospital in China. Topic guides for the interviews were developed based on the COM-B model. The six-step approach to thematic analysis recommended by Braun and Clarke (2006) was used to guide the process of data analysis.

Results: Facilitators for alarm customization in the ICU included initial and ongoing training, standards, inspection, positive alarm culture, duty and goals, and incentives. Barriers for alarm customization included conflict of nursing tasks, lack of specific standards of alarm settings for specific diseases or special conditions, aging equipment and inconsistent branding, and alarm fatigue. Knowledge and skills were found to be conditional factors of alarm customization.

Conclusion: Comprehensive strategies such as standards, training and inspections are necessary to improve adherence and safety of alarm customization in the ICU, and quality improvement projects are an effective way to achieve this goal. More attention should be paid to critical care manpower allocation, intelligent alarm setting solutions, and group standards for the alarm customization for specific diseases. Our findings provide information for a better understanding of critical care nurses' alarm customization in Chinese context and offer a reference for developing more specific strategies to facilitate alarm safety.

Disclosure of Interest: None Declared

Day 3 – Friday 27th September

Morning

Short Orals

What are the key patient experiences driving overall rating of cancer care? Insights from the Swiss Cancer Patient Experiences (SCAPE-2) study: (3417) Chantal Arditì

ISQUA2024-ABS-3417

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Introduction: Collecting patients' experiences with care provision is essential to evaluate the quality of care in general, and patient-centeredness in particular, one of the core dimensions of high-quality care. These experiences are typically gathered through patient experience surveys with multiple questions designed to capture experiences throughout the entire care pathway. Determining which specific aspects of patient experience are the most crucial and require prioritization to enhance quality of care is challenging. The objective of this secondary analysis of a patient experience survey in cancer care was to identify the main drivers of patients' overall cancer care rating among various patient experience items.

Methods: Data from 2750 patients diagnosed with cancer from the Swiss Cancer Patient Experiences-2 (SCAPE-2) study were included in the analyses. This cross-sectional survey, conducted in eight Swiss hospitals from September 2021 to February 2022, collected data with a self-administered questionnaire, including questions on experiences of care, as well as socio-demographic and clinical characteristics. Two patient partners were involved in various activities throughout the study, such as pre-testing the questionnaire, developing the patient study materials, preparing lay summaries of findings for respondents, and disseminating results. The study was approved by the Cantonal Research Ethics Committee, Vaud (CER-VD). We used stepwise logistic regressions to analyze the relationship between the overall rating of cancer care and 29 patient experience items, adjusting for sex, age, self-rated health, financial hardship, and health literacy.

Results: The average rating for patients' overall cancer care experience was 8.9 on a 0-10 scale. In separate regression models, every patient experience item was significantly associated with overall care rating. Adjusted stepwise regressions indicated that seven drivers, covering six of the eight dimensions of patient-centered care, contributed significantly to overall care rating in the final model. The most influential drivers related to the coordination and integration dimension ("professionals working well together" and "tests and exams not repeated unnecessarily") and physical comfort dimension ("being offered advice and support to deal with symptoms"). Additional drivers included "Hospital staff ensuring availability of support/equipment at home", "Being offered to see health professional for emotional support at diagnosis", "Treatment options being explained" and "Being involved in treatment decisions".

Conclusion: Among the 29 patient experience items of the multidimensional SCAPE questionnaire, seven were associated with overall rating of cancer care. By directing attention to these particular areas, hospitals can improve the overall patient experience, as well as effectively allocate resources for initiatives aimed at enhancing patient experience.

Disclosure of Interest: None Declared

Improving patient participation in value improvement teams: An action research study: (1392) Jet Jeltje Westerink

ISQUA2024-ABS-1392

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Introduction: The concept of Value Based Health Care (VBHC) has emerged as a prominent movement in healthcare over the past decade. It entails organizing care with a primary focus on increasing value for patients, where value is defined as patient relevant outcomes relative to the costs for achieving these outcomes. Within a VBHC system, actively involving patients is crucial for understanding their perspectives on relevant outcomes and value. Despite the pivotal role of patients in VBHC, studies consistently highlight a concerning lack of patient participation in VBHC initiatives. Therefore, we aimed to improve patient participation within VBHC teams. This study evaluates the impact of our efforts to improve patient participation and provides insight into the overall lessons learned.

Methods: This study is currently conducted in the seven Dutch Santeon hospitals (March 2023 – September 2024). These hospitals have implemented VBHC via Value Improvement (VI) teams. Each hospital has multidisciplinary VI teams for 15 medical conditions. More details on the Santeon approach can be found in the article of Engels *et al* [1].

This study is designed according to the principles of action research (AR). Seven different VI teams (one team in each hospital) were selected for this study via purposive sampling based on differences in health conditions and level of patient participation at the start (Table 1). Within these 7 teams, the cyclical steps of AR are followed to improve patient participation, i.e. the orientation phase, planning phase, action phase, and evaluation phase. The first step was to clearly define the goals for patient participation for each team (orientation phase). Based on these goals, different actions to improve patient participation were selected (planning phase) and are currently being implemented (action phase).

To evaluate improvements in patient participation, qualitative observations and minutes of meetings with the VI teams are being collected. Furthermore, data collection includes quantitative observations and responses to the Public and Patient Engagement Evaluation Tool (PPEET) questionnaire (which is sent out every 6 months to all VI teams) [2]. The response choices for the PPEET comprise a 5-point

Likert-type scale, ranging from total disagreement to total agreement. Qualitative data is thematically analyzed and quantitative data of the first PPEET measurement is presented with descriptive statistics.

This study has been approved by the Medical Ethics Committee (W23.022). Participants gave informed consent to use their data for the study.

Results: So far, we found that patient participation is often seen as a separate ‘project’ for a VI team, instead of standard practice within the team. Secondly, we found that it is important to assign responsibility for patient participation both on team-level as on organization-level. At the team-level, this responsibility includes supporting patient VI team members and creating awareness for opportunities for patient participation. At the organizational level, it should be made clear who is responsible for and available to support patient participation activities. Thirdly, we found that VI teams that have formal responsibility for the value of care of the entire patient journey seem to be more open towards input from patients compared to project teams with more limited responsibility for value of care.

The first PPEET results showed that AR contributes to setting up goals for patient participation (% (total) agreement AR teams= 67%; other teams=29%) and making action plans for patient participation (% (total) agreement AR teams= 60%; other teams=25%). Furthermore, 80% of the VI team members that participate in the AR would like to participate in a training on patient participation, compared to 40% of the other team members. Lastly, only 29% of the VI team members indicate having sufficient resources to plan and execute patient participation.

Image:

Team	Type of PP at start	Selected actions for PP	N action-meetings	Size VI team
1. Breast cancer	None	Focus group	7	3 in core team, 36 total
2. Vulnerable elderly	Previous experience with patient interviews	Patient journey interviews	8	5 in core team, 15 total
3. Diabetes	None	Patient panel	4	3 in core team, 8 total
4. Birth care	Previous experience with group interview	Patient pool	6	9 total
5. Colorectal cancer	None	Questionnaire to collect improvement ideas per phase of patient journey	6	4 in core team, 15 total
6. Kidney failure	3 patient team members	Each session a theme is discussed that is chosen by the patient team members	6	16 total
7. Prostate cancer	Yearly patient questionnaire	Group interview and working group	7	3 in core team

Conclusion: This is the first study that is actively working on improving and evaluating patient participation within a VBHC context. Our preliminary results indicate that our efforts to improve patient participation have contributed to improved goals for patient participation, setting up action plans for patient participation, and gaining insight into facilitators for implementation of patient participation. In the upcoming eight months, the VI teams will continue with the action phase, and

data will be analyzed to determine the impact of our efforts to improve patient participation and overall lessons learned for successful implementation of patient participation. Based on these insights, we will develop a good practice model for patient participation within VI teams, which will be finalized and presented at the conference in September.

References: [1] <https://doi.org/10.1056/CAT.23.0232>

[2] <https://doi.org/10.1111/hex.12378>.

Disclosure of Interest: None Declared

Patient/Family Advisors Co-designing Healthcare Quality & Safety Improvement - From Planting Seeds to Driving Transformation: (1412) Dr. Katharina Kovacs Burns

ISQUA2024-ABS-1412

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Introduction: Transforming or “making a difference” in healthcare quality and safety requires active involvement of those affected in delivery as well as receiving care. Over the past decade, more efforts by healthcare services or organizations include co-production or co-design where care providers partner with patients and families in different ways to improve the delivery of safe and quality care experience, and where patients and families are more than recipients of care and supports. The challenge is to ensure that those involved are comfortable and ready to co-design. Readiness comes with capacity building of those involved. To clearly understand the barriers and challenges around co-design readiness for quality and safety improvement or sustained transformation, there needs to be real-time co-design orientation, implementation and evaluation. The objective of our work was to (1) bring together key stakeholders of patients, families, care providers, and leaders in quality, safety and policy to explore and map out the essential components of co-design as related to quality and safety improvements in care; (2) co-develop a co-design approach that could be implemented in different care settings; and (3) evaluate the outcomes of the co-design process as well as resulting improvements in patient experiences with the quality and safety of their care.

Methods: It was proposed that a 'Co-design Orientation 101' framework be developed to guide understanding, readiness of all involved, implementation and evaluation of effectiveness, process and other outcomes related to the co-design approach itself, as well as the quality and safety improvement initiatives. Different care settings were approached (i.e. acute, home care, continuing care, long term care and others). Sites in agreement to apply co-design recruited staff, care providers, leaders and patient/family advisors to be actively involved as care setting teams throughout the process. Each care setting team participated in identifying what they needed to understand the reality of quality and

safety in their settings (e.g. existing patient safety and care experience data; safety issues, etc.), and what they felt they needed to implement their co-designed plans and activities with the intent of improving or transforming their quality and safety outcomes. Developmental evaluation was embedded throughout the co-design process to gather the experiences and perceptions of all stakeholders involved. Real-time patient/family experiences were gathered via interviews/survey pre and post quality/safety improvement initiatives for each care setting. Quality and safety metrics were reviewed at team meetings to inform any further actions needed.

Results: Over three years excluding during the COVID pandemic, the co-design approach was implemented and evaluated specifically as applied to quality and safety improvement in 22 care settings, involving 69 staff/care providers and 17 patient/family advisors. As the co-design process unfolded in each care setting there was confirmation of what an appropriate co-design approach was. Experience data gathered from care setting team members determined that an orientation and four-phased co-design implementation approach for quality and safety improvement worked best. Experiences overall were positive and affirming for the co-design approach and outcomes achieved. Themes emerged for each of the four phases of the co-designed work - for example, "having clear direction for work planned/proposed", "engaging in quality improvement decisions" and "making a difference". Real-time patient/family experiences gathered also indicated improvements in various quality and safety areas - e.g. reduction in noise levels enhanced patients' much needed rest/sleep and reduced stress levels.

Conclusion: The evaluation of the four-phased co-design implementation approach was determined to be the best approach for care settings to improve and transform their efforts around quality and safety in their care delivery. More so, care setting teams learned to co-design and experienced the benefits of co-designing quality and safety improvement for their care settings. They felt they made a difference in the overall experiences of patients and families. The resulting Kovacs Burns & George co-design orientation guide for healthcare quality and safety improvement has been published and is available for teams to explore and apply.

Disclosure of Interest: None Declared

[Understanding the influence of co-design on distress, clinical decision making and disease self-management of cancer patients-as-partners: a quasi-experimental study: \(2015\) Zahraa Al Raychouni](#)

ISQUA2024-ABS-2015

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Introduction: Cancer is regarded as a major worldwide burden. Patients diagnosed with cancer are at risk of multi-system complications despite the availability of cancer treatment options. Cancer patient distress has been linked to disease progression. Studies show that patient engagement strategies affect clinical decision making process and disease self-management; therefore, alleviate patient's clinical outcomes. The optimal engagement method is the patient partnership model of care that integrates patient's expertise into comprehensive co-design of healthcare system.

Methods: This is the first study to investigate the impact of partnership with cancer patients on distress level. It also evaluates the cancer patient-as-partner experience, and assesses the influence of partnership model of care on clinical decision making process and disease self-management. It is a quantitative and quasi-experimental study that adopted partnership committee at a Lebanese hospital. A stratified random sampling approach was used, and data was collected by self-administered structured questionnaires. We utilized the standardized distress thermometer and Public and Patient Engagement Evaluation Tool.

Results: We recruited 100 Patient partners. PP characteristics had no significant association with partnership experience. Cancer patients as partners had optimal engagement experience in quality improvement project (Mean = 4; SD = 0.4). Participants 'agreed' to 'strongly agreed' (3.9 ± 0.5) (85.6% response frequency) that were satisfied with this engagement initiative and found it a good use of their time. The main partnership benefits were improved hospitalization experience and patient satisfaction (49%), patients' ability to express their opinion (39%), distress relief (21%), hospital reputation enhancement and patient loyalty (21%). Almost half of PP reported no challenges faced (49%). Recommendations for improvement were training (19%), team dynamics management (12%), and proper time allocation (7%). Distress level post the implementation of partnership approach was significantly reduced ($t = 12.57$, $p < 0.0001$). This study highlights the importance of patient partnership and its ability to influence shared decision making preference [$\chi^2(2) = 13.81$, $p = 0.025$] and self-management practices index [$F(3, 11.87) = 7.294$, $p = 0.005$].

Conclusion: Research findings suggest that partnership model of care can shape the healthcare system into people-oriented culture that drive better patient clinical outcomes and high quality care. Further research is needed to explore diverse PP engagement methodologies and their effect on organizational growth and development.

Disclosure of Interest: None Declared

Building bridges between people, systems and organisations: transformative system and practice improvement through in Touch Residential Aged Care Facility Pathway: (2157) David Greenfield

ISQUA2024-ABS-2157

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Introduction: Person-centred care with enhanced care co-ordination promotes high quality, safe health services, organisational resilience and meets community expectations. Intention to reality, however, remains a challenge; there is a need to overcome fragmentation and integrate services within the health sector – between acute, primary and aged care - and across the health and community care sectors. The study aim was to identify changes for patient-centric care with enhanced care co-ordination across health and community care sectors.

Methods: The case study uses document analysis (n=10 documents; n=15 websites) and discussions with key informants (n=9). The study focuses upon the *inTouch* Residential Aged Care Facility Pathway (RACFP) implemented by Western Sydney Local Health District across 2022-23.

Results: *inTouch* RACFP – one of four redesign pathways within a broader innovation program - is a holistic, system approach to reconceptualising service delivery. *inTouch* RACFP was necessitated due to three contextual drivers for improved integration between acute, primary and aged care sectors: service demand, state contextual policy directions and a national judicial commission. Together these instigated organisational cultural changes to how care was governed. Changes were achieved through three mechanisms: redesigned community care pathways; a dedicated access point for acute services; and, enhancements to virtual care capacity, decision making tools, and quality and safety measurements. To realise, and sustain, integration and improvements changes occurred at four levels: cultural – governance and attitudinal approaches to delivering care; system – incentives and models directing how care is planned, monitored and evaluated; technical – sharing of information and knowledge; and, practice – decision making and care coordinating on a daily basis.

Conclusion: Collaborative strategies, across services and sectors, simultaneously at multiple levels are required for successful redesign outcomes. The *inTouch* RACFP approach is a demonstration of improved health planning and system improvement. The outcome being patient centred integrated, flexible, timely and optimised care for individuals and populations.

Disclosure of Interest: D. Greenfield: None Declared, J. Ellis Employee of: Works in WSLHD which is the study site, K. Eljiz: None Declared, J. Medlin Employee of: Works in WSLHD, which is the study site, A. Derrett Employee of: Works in WSLHD, which is the study site, G. Loy Employee of: Works in WSLHD, which is the study site

Medication Review in Patients on Polypharmacy: Insights from Integrated Care Data: (3371) Derryn Lovett

ISQUA2024-ABS-3371

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Introduction: Polypharmacy, where patients are prescribed of multiple medications, is a major challenge for health systems internationally (1-3). Polypharmacy is associated with increased rates of adverse drug events (4), reduced medication adherence (5), and higher drug costs (6). As such medication reviews are an important element of care for patients on polypharmacy. There have been no studies of polypharmacy prevalence, medication cost, and provision of medication reviews at a population level in England.

Aim: To determine prevalence and medication cost of polypharmacy, and understand potential health inequalities in provision of medication reviews, by patient characteristics.

Methods: Retrospective cohort study of North West London integrated health and care records. We used SNOMED dispositions to classify and count regular medications, and defined polypharmacy to be more than five regular medications prescribed during the study period (2022). We quantified prevalence and medication cost of polypharmacy, by demographics and frailty. We fitted mixed-effects logistic regression models for polypharmacy, and for medication reviews. We created a funnel plot to show variation by GP practice in provision of medication reviews. A patient representative contributed to all stages of the project through the steering group.

Results: 1.7 million adults were included, of which 167,665 (9.4%) were on polypharmacy. Polypharmacy was associated with age and socio-economic deprivation (OR 9.24 95% CI 8.99 to 9.50, age 65-74 compared with 18-44; OR 0.68 95% CI 0.65 to 0.71, least deprived compared with most), as was frailty (OR 1.53 95% CI 1.53 to 1.54 per frailty component, for White women). Black people had lower odds of polypharmacy for average frailty (OR 0.82 95% CI 0.79 to 0.85, compared with White), but had greater odds increases with increases in frailty (OR 1.02 95% CI 1.01 to 1.03). Annual medication costs were 8.2 times higher among those on polypharmacy compared with not (£370.89 vs £45.31). Early findings suggest there is variation in provision of medication reviews by demographics and by GP practice.

Conclusion: Overall, one in ten adults are on polypharmacy, and prevalence varies by age, socio-economic deprivation, frailty, gender and ethnicity. Patterns in polypharmacy recorded in the literature were broadly consistent with our findings (7,8) Polypharmacy is associated with high cost of medication, with average costs per regular medication higher for those on polypharmacy than those who are not. Furthermore, there is variation in provision of structured medication reviews. Further research should explore why, to reduce health inequities, improve quality of care, and optimise cost associated with polypharmacy.

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Disclosure of Interest: None Declared

Improving Systems of Care for ST Elevation Myocardial Infarction patients through Public-Private integration for Pre-Hospital Care activation of Primary Percutaneous Coronary Intervention: (1944) Farina Mohd Salleh

ISQUA2024-ABS-1944

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Introduction: The first ST Elevation Myocardial Infarction (STEMI) Network for Primary Percutaneous Coronary Intervention (PPCI) in Malaysia was established in 2014 between National Heart Institute (NHI), a private cardiovascular hospital and Hospital Kuala Lumpur, the largest public hospital in Kuala Lumpur. NHI initially collaborated with a private ambulance service for Pre-Hospital (PHC) STEMI activation in 2019 and established the first PHC STEMI service with ECG transmission in Malaysia. This was made possible by availability of ECG transmission capabilities by portable defibrillator machines from ambulance to hospital. However, it was found that from 2019-2022, only 3% (3/97) of PHC ECGs were STEMI that required intervention as majority of patients utilized government instead of private ambulances. Plans to commence PHC STEMI Network with government ambulances were delayed due to COVID-19 pandemic. Efforts were resumed post-pandemic and Klang Valley Ambulance Services (KVAS), the government ambulance services network within the nation's capital, commenced PHC STEMI Network with NHI in May 2023. This study aims to demonstrate good patient outcomes for the new integrated initiative.

Methods: In establishing the PHC STEMI Network with KVAS, processes were developed for on-site ECG assessment of patients with chest pain retrieved by ambulance. As there is no doctor in the ambulance, a brief and targeted history is obtained by trained Medical Assistants and vital signs are taken. Information of the patient's clinical condition and ECG is relayed to the Emergency Physician on duty. Diagnosis of STEMI is made and patients are diverted to NHI Emergency Department (ED) based on selected inclusion criteria, including patient age, medical background and clinical stability. The NHI ED doctor will activate the Cardiologist and catheterization laboratory to prepare for PPCI prior to patient arrival. On arrival to NHI ED, the patient will be assessed briefly before going for PPCI. Data on ECG time, arrival time, reperfusion time as well as outcome measures including length of stay (LOS) and survival to discharge was collected and analyzed. Regular meetings were held to address issues and ensure quality of services.

Results: There was a total of 45 PHC STEMI cases sent from KVAS to NHI from 1st May 2023 to 31st December 2023. 51% (n=23) of patients were retrieved from home while the remainder were from clinics. 93% (n=42) of patients were male. Median age of patients was 48 years and ranged from 30 to 79 years. Median time from first ECG to NHI was 43 minutes. Out of 45 patients, only 1 patient did not have a diagnosis of STEMI after assessment at NHI. 60% (n=27) of patients presented with Inferior Myocardial infarction and 76% (n=34) were classified as Killip I. 89% (n=44) proceeded with angiogram and PPCI was performed in 91% (n=41) of patients. Acute occlusion of Right Coronary Artery was the main angiographic finding in 51% (n=23) of patients. Out of the patients who had angiogram, 2 had

normal coronary arteries. 1 patient had severe 3 vessel disease but did not agree to PPCI or Coronary Artery Bypass Graft (CABG) surgery. Median door-to-reperfusion time was 57 minutes while median ECG to reperfusion time was 107 minutes. This was despite half (49%) of the patients arrived in NHI after office hours. With regards to outcome measures, 100% of patients survived to discharge with median LOS of 5 days. 1 patient had CABG during the same admission. In terms of risk factors for Ischaemic Heart Disease (IHD), the majority or 47% (n=21) had more than 1 risk factor. Smoking was the most common risk factor, present in 62% (n=28) followed by Hypertension in 47% (n=21) of patients. Out of those with single risk factor, smoking was the most common. 5 patients had no risk factors for IHD.

Conclusion: PHC STEMI activation is an efficient way to manage STEMI patients who are retrieved by ambulance. Median door-to-reperfusion time of 57 minutes is within the standard of 90 minutes according to Malaysian Clinical Practice Guidelines for STEMI. With good patient selection, all patients survived to discharge with a short LOS. This outcome is extremely relevant for local systems of care to promote effectiveness of PHC STEMI Networks with potential for expansion in Malaysia. The study demonstrated that integrated patient care through public-private collaboration had excellent patient outcomes.

Disclosure of Interest: None Declared

Comprehensive and integrated Geriatric Care Program in a model regional teaching hospital in Taiwan: (1493) Meng-Chih Lee

ISQUA2024-ABS-1493

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Introduction: Taiwan has become an aged society since 1993. Currently there are more than one-third of all patients in our hospital who are over 65 years of age, and this figure is increasing year by year. As a model Age-friendly hospital as well as Health promotion Hospital in Taiwan, we are trying to establish a comprehensive and integrated geriatric care program from health promotion/disease prevention to acute, postacute and long term care in both our hospital and surrounding community settings.

Methods: To create a quality, safe and friendly care, we have integrated the principles of Universal Design and Integrated Care to provide comprehensive care ranged from community care, acute care, postacute care, and long term care and palliative care. In addition, we have established a multi-disciplinary team to perform comprehensive geriatric assessments and interprofessional practice (IPP) for better care of the elderly. This team is comprised of doctors, nurses, case managers, social workers,

dietitians, clinical pharmacists, physical and occupational therapists, and always including patients themselves and their families. Hospital has been well connected with community settings including primary care clinics and long-term care facilities through the Discharge Planning Office and electronic referral information system.

Results: We have 24- bed postacute Care Ward where 80% elderly patients with stroke or hip fracture can go home and live independently at discharge, 36-bed acute geriatric ward where 100% of patients will receive comprehensive geriatric assessment and interprofessional care, and 190-bed nursing home with more than 95% satisfaction rate from patients and their families for our full-range rehabilitation program. In addition, in our hospital, Integrated Geriatric Clinic, Customer Center, and Education and Health Case Center together provide a one-stop and full-range services for our elderly patients.

Conclusion: In conclusion, a barrier-free environment, interprofessional teamwork and comprehensive services are all important to provide optimal care for the elderly. Our dedicated efforts resulted in being awarded as Distinguished Age friendly Hospital , Health Promotion Hospital as well as Distinguished Friendly Environment Hospital for the Elderly in the past 10 years. We will continually improve our Comprehensive Geriatric Care program through total quality management (TQM) and total resources management (TRM) to tailor to the specific needs of our elderly patients.

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Disclosure of Interest: None Declared

Enhancing Early Discharge after Elective Caesarean Section: Implementing a Fast-Track Approach (ERAS) for Improved Patient Outcomes: (2923) Afnan Tawfiq Ahanfish

ISQUA2024-ABS-2923

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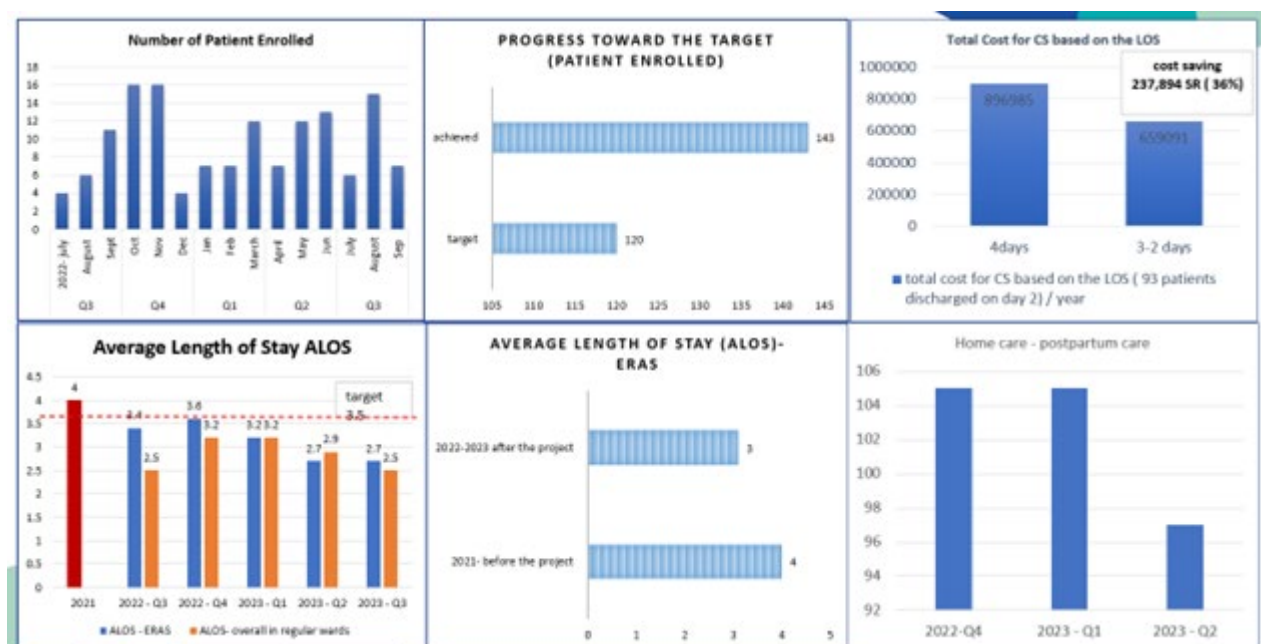
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Introduction: Cesarean sections, a common global surgery, pose challenges in patient recovery and postnatal care. Increasing rates impact recovery times and length of stay. Enhanced Recovery After Surgery (ERAS) proves effective, with guidelines improving maternal and neonatal outcomes, encouraging early ambulation, and reducing admission days.

Methods: The project executed in Jubail City from July 2022 to July 2023, adopts a multimodal, evidence-based approach to surgical care for scheduled and arranged cesarean sections. uses the Eastern Health Cluster pathway and guidelines. Measures through a platform, and ensures regular communication within the team. Patient satisfaction surveys are conducted for continuous improvement and assessment.

Results: The program, exceeded the target enrollment by 119%. 76.6% were discharged on the second day, reducing the Average Length of Stay from 4 to 2.3 days. Overall morbidities decreased by 0.60% and readmission rates and from 9% to 6%. Nonsurgical complications decreased by 0.40%, and the average return of bowel activity was 1.7 days. Surgical site infections dropped from 2.8% to 1.6%, with no reported cases of venous thromboembolism or paralytic ileus. Additionally, 307 home care visits were conducted post-discharge (postpartum care). Patient satisfaction showed a 96% overall satisfaction, with 88% experiencing a better cesarean section experience compared to previous procedures. The project has also demonstrated cost savings, with a minimum of 237,894 SR per year.

Image:



Conclusion: A study in KSA supports Enhanced Recovery After Surgery (ERAC) effectiveness, citing improved symptom control, pain management, early ambulation, higher satisfaction, and reduced admission days.

The ultimate goal of ERAS is to enhance perioperative care, hasten recovery, improve maternal and neonatal outcomes, shorten the length of stay LOS, and reduce readmission rate and postoperative complications coupled with improved patient satisfaction.

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Disclosure of Interest: None Declared

Variations in diagnostic guideline compliance for COPD: Observational study of primary care in England: (2895) Alex Bottle

ISQUA2024-ABS-2895

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Introduction: Chronic obstructive pulmonary disease (COPD) affects over a million people in the UK and nearly 400 million worldwide. Acute exacerbations (AECOPDs) cause much of the progressive decline in lung function and reduce patients' quality and quantity of life. A reduction in AECOPDs through more timely diagnosis and intervention could significantly reduce the burden borne by patients and the health system. Using a nationally representative sample of linked primary care electronic health records, we assessed variations by family doctor practice in the use of spirometry and national guideline-recommended measures for diagnosis. We compared guideline compliance in two cohorts, ten years apart, and an early COVID-era group to see what had changed.

Methods: The Clinical Practice Research Datalink collects anonymised patient electronic health records from participating family doctor (general practitioner, GP) practices. Data are linked to death registrations, hospital admissions and other datasets. We included all patients aged over 35 with COPD diagnosed between 1 April 2005 and 31 March 2007 (Cohort 1), between 1 April 2015 and 31 March 2017 (Cohort 2) and between March 1 and August 30 2020 (Cohort 3). For each patient, the diagnosis

date was defined as the first record of COPD, either in the primary care record or in hospital admissions data. We assessed variation in spirometry rates by GP practice using multilevel models adjusting for patient factors such as age, sex and comorbidities; variation in the other four measures were quantified descriptively.

Results: Cohort 1 had 40,577 patients (47.3% female, mean age 68.3 [SD 11.7]), with 78.1% diagnosed in primary care. Cohort 2 had 48,249 patients (47.2% female, mean age 68.2 [SD 12.2]), with 77.5% diagnosed in primary care. Cohort 3 had 4,752 patients (70.9% diagnosed in primary care) and similar demographics. Hypertension, asthma, cancer, anxiety, depression and diabetes were common (>10%) in all cohorts. The following results all relate only to those diagnosed in primary care. Table 1 shows the median and IQR rates of guideline compliance by practice for the two main cohorts.

Measure	Cohort 1 median (IQR) %	Cohort 2 median (IQR) %
Spirometry (pre-diagnosis)	76.9 (61.2 to 86.6)	86.4 (78.6 to 93.3)
Chest X-ray (CXR)	50.0 (27.3 to 71.0)	73.1 (50.0 to 85.7)
Full blood count (FBC)	80.0 (66.7 to 89.3)	94.4 (86.7 to 100.0)
Body mass index (BMI) measurement	95.0 (87.5 to 100.0)	100.0 (96.7 to 100.0)
All of spirometry, FBC, CXR, and BMI measurement before COPD diagnosis	27.8 (11.8 to 44.4)	54.9 (33.3 to 69.0)

From the modelling, median odds ratios for spirometry were 1.95 (95% CI 1.89 to 1.98), 1.62 (1.59 to 1.65) and 1.72 (1.68 to 1.76) for cohorts 1-3, respectively, showing moderate variation by GP practice. These median odds ratios estimate the median increase in the odds of spirometry when a patient hypothetically moves from a low spirometry use practice to a high spirometry use one.

Conclusion: The majority of patients receive their COPD diagnosis via primary care, but only a minority receive all the guideline-recommended measures for diagnosis, with notable variations by GP practice. There is an urgent need for greater support for primary care in timely identification of individuals with COPD.

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Disclosure of Interest: None Declared

An European Consensus on Core Measures Set for Patient Safety in Perioperative Care (SAFEST project): (1926) Carola Orrego

ISQUA2024-ABS-1926

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Introduction: Although surgical-related adverse effects are among the most common in-hospital adverse events, no set of measures has yet been defined for a comprehensive and patient-centred analysis of this phenomenon at healthcare services level. Thus, it is crucial to standardise a minimum set of measures, a Core Measure Set (CMS), that encompasses structure and process measures while emphasizing outcome measures through a Core Outcome Set (COS), to allow for monitoring and evaluation of patient safety best practices in perioperative care in healthcare services. This study aims to reach a European Union-wide consensus on relevant and feasible core measures, including patient-reported measures, to assess patient safety in perioperative care.

Methods: An initial list of measures was developed following a multimethod approach. First, an umbrella review on measures of patient safety in perioperative care in adult patients was conducted. This umbrella review was complemented by measures identified through a systematic review of Clinical Practice Guidelines and an umbrella review of non-clinical interventions to improve perioperative patient safety. Second, the full list of measures underwent further refinement, including deduplication, rewording, and merging, facilitated by the research team. Third, 67 experts, including patients, were invited to participate in a two-round Modified eDelphi survey to rate the list of measures on the importance and feasibility of each measure on a 9-points Likert scale. The rated measures were grouped by the perioperative period and subgrouped by Donabedian's quality of care conceptual model. Consensus was defined as 75% of experts scoring a measure as 7 to 9, and 15% or less scoring 1 to 3. Fourth, a subsequent CMS consensus conference was held, where participating experts explored the challenges of measuring specific measures highly valued by patients. Finally, the resulting preliminary final list of measures underwent further synthesis and refinement by the research team, leading to the CMS and COS. Ethical approval for SAFEST was given by IDIAP Jordi Gol's Research and Ethics Committee (CEIm code 22/146-P). For this study, all expert panel participants were required to provide informed consent.

Results: The 3 reviews yielded a total of 9530 records, out of which 315 records met the inclusion criteria. From these included studies, a total of 1305 measures were extracted, resulting in a consolidated list of 247 measures after duplicate removal, merging and further refinement. The expert panel comprised a diverse composition of stakeholders, consisting of 52.2% females, 9.6% patients and patient representatives, 83.6% patient safety/perioperative experts, and 6.0% healthcare

evaluation experts. From the initial list of measures included in rounds 1 and 2, 85 (34.1%) reached consensus regarding importance and feasibility. One-hundred and sixty-four measures failed to reach a consensus simultaneously for importance and feasibility. At the Consensus Conference, 25 measures were discussed (19 outcome measures, 5 process and 1 structure measures), with most measures related to the postoperative period. From the preliminary final list of measures consisting of 91 measures that successfully met the consensus criteria during the eDelphi process, the CMS resulted in 77 measures including 23 outcome measures, 18 process measures and 36 structure measures.

Conclusion: A consensus among a diverse panel of experts was reached for core measures in reporting perioperative patient safety, successfully reducing measures from 247 to 77. While the experts emphasized the importance of these indicators, further exploration of their feasibility is essential for the effective implementation of monitoring and evaluation in surgical-related patient safety systems in clinical practice. It's crucial to acknowledge that the resulting CMS still presents a considerable number of measures, posing implementation challenges.

This CMS contributes to enhancing standardised reporting in perioperative patient safety, allowing for benchmarking across EU countries and studies. As such, this CMS holds promise for enhancing the monitoring and evaluation of patient safety practices in perioperative care, thereby contributing to the overall quality of care and informed healthcare decision-making.

Disclosure of Interest: None Declared

Navigating the information source landscape: a mixed methods study to assess the use of information sources by Dutch medical specialists: (2206) Floris Weller

ISQUA2024-ABS-2206

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Introduction: Evidence-based medicine (EBM) is widely recognized as the standard in informed medical decision-making. It consists of three cornerstones; the best available evidence, patient preferences and the clinical expertise of medical specialists. To efficiently use the first pillar, best available evidence, medical specialists need to use a wide variety of information sources. The landscape of these available information sources to inform medical specialists about the latest evidence has evolved significantly over the past decades. Some studies describe a general overview of what information sources could be used in clinical practice. It is unknown however, which information sources Dutch medical specialist actually use most frequently to inform their daily medical decision making and to update their general knowledge. Insight in the practical use of different information sources could aid policy makers in providing medical specialists with an accessible way of utilizing the

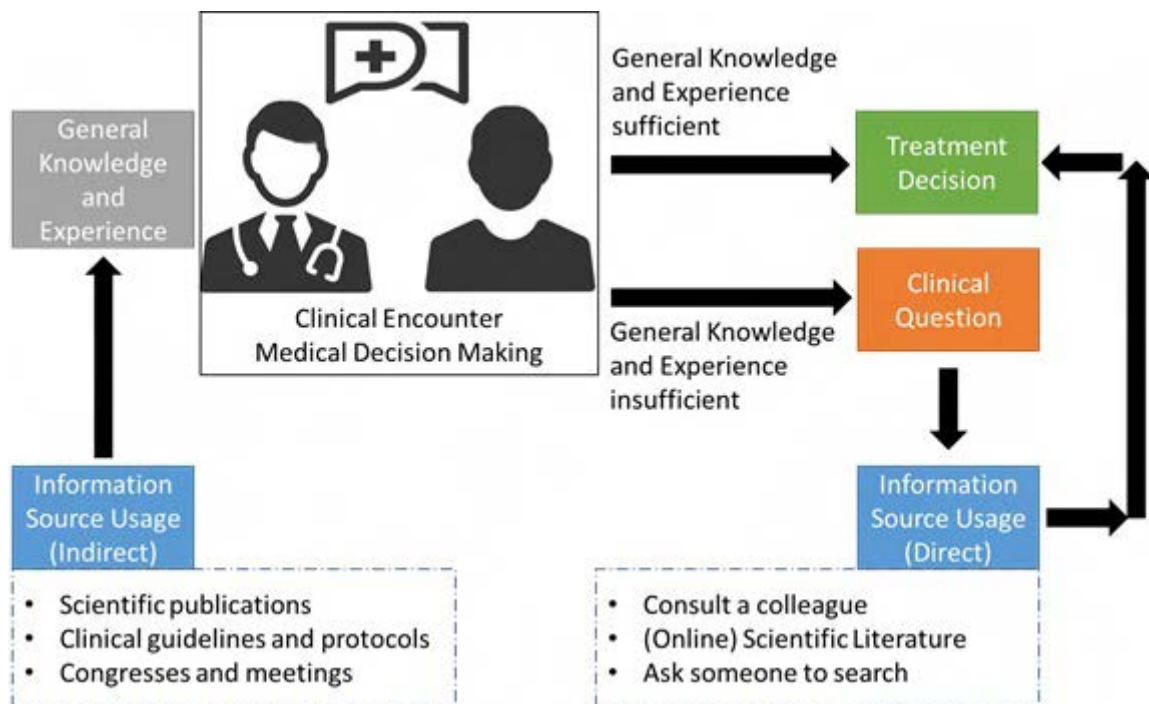
best available evidence tailored to their specific needs. This will promote true EBM and therefore improve healthcare quality throughout.

Therefore, this study aims to assess the extent to which Dutch medical specialists use different types of information sources in their daily practice to inform medical decisions and to update their general knowledge.

Methods: - An exploratory sequential mixed methods design was used. An interview study with medical specialists was performed to explore the wide variety of information sources used in daily practice in the Netherlands to answer point-of-care clinical questions and for updating general knowledge. We defined **direct information sources** (directly used to answer a clinical question) and **indirect information sources** (used to update general knowledge without a specific question) within the interview topic guide. This was followed by a cross-sectional web-based survey to quantify the used information sources to answer clinical questions. We also asked what information sources they found the most useful in keeping their knowledge up to date. Descriptive statistics were used in analyzing the results. Informed consent and the acceptance of our privacy policy, which was in line with the GDPR, was obtained for all respondents prior to participation. This study was exempted for further ethical appraisal by the medical ethical committee of Leiden University Medical Center.

Results: The qualitative study consisted of semi structured interviews with ten surgeons and ten internal medicine specialists. Within the predetermined direct and indirect information sources three main groups of information sources were defined as made visual in figure 1. To consult a colleague was stated to be the most preferred information source due to its accessible nature. These individual information sources were fitted into an online survey. In total 296 medical specialists replied to our survey. More than 90% of respondents actively used information sources in less than 10% of their patients. Most used direct information sources were direct colleagues (85% often), followed by the use of CPG's (64% often). For indirect information sources respondents most frequently visited medical conferences (99%), followed by reading (updated) CPG's (84%). Although near all respondents reported medical conferences as the most 'used' information source for updating their knowledge, only 12% of respondents rated medical conferences as most useful to keep their knowledge up-to-date.

Image:



Conclusion: Our study shows that medical specialists actively use direct information sources in less than 10% of their patient interactions and emphasizes the importance of direct colleagues in clinical decision making. Although two medical specialists will know more than one, a direct colleague is not necessarily a substitute for the best available medical evidence. For indirect information sources ‘medical conferences and courses’ were used most frequently but not considered the most useful to stay up-to-date. Respondents stated that medical conferences are more important for promoting research collaborations and the social aspects rather than to update knowledge. In order to promote true EBM and make it easier for medical specialists to utilize the best available evidence in their medical decision making information sources should be presented in an accessible manner. This could improve healthcare quality as it will reduce sub-optimal treatment and diagnostic decisions.

References: Abbreviations

CGP: Clinical practice guideline
 EBM: Evidence-based medicine
 GDPR: General Data Protection Regulation

Disclosure of Interest: None Declared

**Importance of Effective Hospital Stock Analysis for Healthcare Quality: ABC and VED Analysis
Pharmaceutical Stock Analysis with AHP Method: A Private Hospital Example: (2958) İbrahim Halil
Kayral**

ISQUA2024-ABS-2958

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Introduction: Medicines are among the most important materials that hospitals have to stock in order to provide uninterrupted and quality service. For this reason, planning when and where medicines should be procured, creating demands according to the situation and preparing them are all possible through well-managed stock management. Due to the specific and diverse nature of the services they offer,, hospitals manage the process of drug purchases according to many criteria. Among the criteria subject to our study; price, demand and supplier reliability. The purpose of this study; The aim is to analyze all drugs used in a 100-bed private hospital in Istanbul with ABC-VED and ABC-VED matrix management and to establish the order of consumption cost and vital importance. With the AHP method, it is aimed to find out which of the experts subjectively prioritize the criteria of price, demand and supplier reliability. Effective stock control provides positive results both financially and in the quality of the service to be provided. In this context, this study aims to evaluate ABC, VED and ABC-VED matrix analyzes from the perspective of community pharmacies.

Methods: The drug data subject to the research was obtained from the private hospital and divided into unit numbers on a monthly and annual basis through Excel according to the ABC-VED analysis method, and the total expenditure amounts allocated from the balance sheet were calculated. Pharmaceutical items are financially categorized into three classes: Group A, B and C. For VED analysis, the hospital staff were asked for their opinions and drug lists were given to them and they were asked to categorize them as V, E, D. Total amounts of categorized drug items were calculated on an annual basis via Excel. Grouping was performed by making ABC-VED matrix, and the research findings were revealed by calculating the number of drugs, their percentages in the total number of drugs, total expenditure amounts and percentages in the total expenditure amounts of the grouped drugs. With the AHP method, 6 experts were asked to score the criteria determined according to their importance against each other, using Saaty's 1-9 scale. The scored survey forms were analyzed and their importance was ranked according to the weight of the criteria.

Results: The drug stocks used in a private hospital were analyzed by the ABC, VED and ABC-VED stock control method and the matrix method of the stocks in terms of financial and vital importance of the drugs. As a result of three analyses, it was observed that a total of 3,187,954.16 Turkish Lira (TL) was spent on a total of 545 drugs. There are 50 drugs in group A and the total expenditure is 2,240,127.33 TL, 79 drugs in group B and the total expenditure is 641,442.01 TL, and 416 drugs in group C and the total expenditure is 306,384.82 TL. It was observed that group A included 70.30% of the total cost, 20.10% of group B and 9.60% of group C. In the VED analysis, the total expenditure of drugs in group V is 958,195.33 TL, the total expenditure of group E drugs is 1,049,012.10 TL, and the total expenditure of group D drugs is 1,180,746.73 TL. The percentages of VED drug groups in the total cost are 30.06% in group V, 32.91% in group E and 37.04% in group D, respectively. When the ABC-VED matrix is examined in terms of both financial and vital importance, it is observed that there are 20 drugs of the

A-V drug group and the total expenditure is 821,221.72 TL, and the percentage of this expenditure amount in the total cost is 25.76%. The weights of the answers given by 6 experts were calculated using the AHP method. The geometric averages of the weights were taken and their consistency was calculated, the importance ranking was created with the weights of the criteria, and by ranking among the three criteria, it was observed that the price was more important.

Image:

AB C	Number of Medicines	Medicine (%)	Total expenditure	Spending (%)	GROUPS	NUMBER OF DRUGS	DRUG PERCENTAGE	EXPENDITURE AMOUNT	EXPENDITURE PERCENTAGE	
A.	50	9,17	2.240.127,33	70,3	Primary Group (AV+BV+CV+AE+AD)	230	42,2	12.590.652,34	11,59%	
B.	79	14,5	641.442,01	20,1	Secondary Group (BE+CE+BD)	183	26,24	1472.515,45	14,82%	
C.	416	76,33	306.384,82	9,6	Tertiary Group (CD)	172	31,56	1115.986,37	3,64%	
					GRAND TOTAL	545	100	13.187.954,16	100%	
AVERAGE										
TOTAL	545	100	3.187.954,16	100	First Matrix					
VED	Number of Medicines	Medicine (%)	Total expenditure	Spending (%)		Price				
V	199	36,51	958.195,33	30,05	Price	1	2,82	3,01		
E	140	25,69	1.049.612,10	32,91	Request	0,15	1	1,50		
D	206	37,8	1.180.954,16	37,04	Supplier Trust	0,33	0,63	1		
					Total	1,69	4,45	5,6		
TOTAL	545	100	3.187.954,16	100					Lambda Max	3,818
									TI	0,009
									TO	0,015

Conclusion: While group A drugs are financially high-priced but have fewer drugs, group C drugs are drugs with a high drug variety but a high financial share. According to the findings, group A and group C achieved the expected results. VED group drug stock values are expected to be close to each other. The analysis result obtained satisfied this condition. Stock items were evaluated in terms of cost and criticality with the ABC-VED matrix, and according to the data obtained based on expert opinion in the AHP method of pharmaceutical stocks, it was concluded that price was the first among the three criteria in the stock process. Thus, stock management can be improved through cost analysis by taking into account the price policy of pharmaceutical stocks during the purchasing process.

Disclosure of Interest: None Declared

Engaging Stakeholders to Enhance patient safety by Ensuring standards in instrument Sterilisation: A National level Quality Improvement Journey in India: (3047) Jayalakshmi Jayarajan

ISQUA2024-ABS-3047

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Introduction: The Central Sterile Supply Department (CSSD) plays a critical role in ensuring that the medical devices are sterilized and delivered to various users in the hospital in a quality-assured environment for safer patient care. Poor handling is associated with damaged instruments and improper sterilization is associated with increased risk of healthcare associated infections. It is essential to have appropriate infrastructure, adequate equipment and skilled and knowledgeable

personnel for efficient functioning of CSSD. However, CSSD represents the most neglected area of infection prevention control in most of the hospitals.

Considering the significance and recognizing these gaps, Consortium of accredited Healthcare Organization (CAHO), a Not-For-Profit Organization in India along with 3M launched CAHO-3M Awareness-Compliance-Excellence (ACE) CSSD program. The primary objective of the program is to facilitate capacity building amongst CSSD professionals, share best practices, and provide benchmarking, while promoting and continuously improving the quality and safety of healthcare services as per the latest guidelines.

Methods: A multidisciplinary team developed basic and advanced CSSD course modules and designed an audit tool with 135 questions for auditing various aspects of CSSD in Health care organization (HCOs) across India. The audit tool was adopted from Asia Pacific Society of Infection Control Self-Assessment Framework, CDC, APSIC & AAMI-ST79 guidelines and validated by key experts across India. An auditor course with an assessment pass score of >80% was mandated for all ACE auditors to standardise the audit process in order to avoid bias.

HCOs were invited for voluntary enrolment in the ACE CSSD programme. Following readiness, an initial baseline virtual audit was conducted followed by a physical audit using the same audit tool by a different empanelled auditor and final scores assigned. Those HCOs with $\geq 80\%$ scores were recognized as CSSD centres of excellence (COE) with a validity of 3 years. Feedbacks were collected using a structured survey questionnaire to understand the challenges faced & benefits for the end users.

Results: About 93 hospitals in 2021, 93 hospitals in 2022 and 85 hospitals in 2023 enrolled in the program. Out of this, 70 (75.2%) hospitals in 2021, 62 (66.6%) hospitals in 2022 and 73 (89%) in 2023 were eligible for physical audit. Among those, 64 (91.4%) in 2021, 54 (87%) in 2022 and 66 (90.4%) in 2023 were awarded as COE (Figure 1). Those hospitals that were not able to achieve in 2021 within the stipulated time were handheld and guided by CAHO-3M team to raise their standards. Among those who were not able to complete or achieve through the audit have reapplied in 2023 showing their commitment towards excellence. In 2023, around 80% of reapplied hospitals are selected as COE.

About 84 hospitals responded to the feedback survey. In those, 67 (79.8%) felt the audit was very useful. The most common challenges faced by the hospitals in implementing best CSSD practices were knowledge, time constraints and resources. The top benefits perceived by the hospitals were pride in recognition as COE, confidence in quality among the users and cost effectiveness of the process.

Image:



Conclusion: The audit finding has given a promising result that a QIP for CSSD provides comprehensive handholding support to enhance their practices, ensuring adherence to stringent sterilization protocols. This initiative by CAHO & 3M is not merely an audit program, it is a commitment to foster a culture of continuous improvement in healthcare facilities across India, ensuring that every step of the medical device sterilization process is elevated and aligned with the international standards thereby enhancing better patient outcomes with safer procedures. The impact created by this program on quality and patient safety is a positive ripple and ongoing.

References:

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Lallu Joseph ,B Rabindranath ,Florence Ponnice , Premila lee, Achieving Continuous Improvement in CSSD Management through Performance Measurements using User Satisfaction Surveys and Interventions Glob J Qual Saf Healthcare. 2021 Jul 12;4(4):123-30.

Disclosure of Interest: None Declared

Postgraduate Education in Patient Safety/Quality Improvement: Setting Expectations to Optimize Clinical Learning Environments: (2595) Robin Wagner

ISQUA2024-ABS-2595

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Introduction: Clinical sites that host post graduate education (PGE) of resident and fellow physicians have a dual responsibility to simultaneously optimize both learning and patient care. Yet many clinical sites lack optimal infrastructure, processes, and monitoring to fully integrate learners into their systems for addressing patient safety and health care quality. In 2019, the Accreditation Council for Graduate Medical Education (ACGME) released version 2.0 of the *CLER Pathways to Excellence*¹ document—a set of guidelines for optimizing the clinical learning environment (CLE) in 6 cross-cutting areas of focus, including patient safety, health care quality, teaming, supervision, well-being, and professionalism. The purpose of the document is to assist executive leaders responsible for patient safety and health care quality in understanding the infrastructure and actions needed to optimize the CLE. In 2023, the ACGME partnered with ACGME International (ACGME-I) to adapt the *Pathways* document for international use.

Methods: In 2023, international PGE leaders currently sponsoring or in the process of sponsoring ACGME-I accredited residency and fellowship programs were invited to join a working group to review and adapt the *Pathways* document for international use. These leaders were also asked to invite the executive leaders responsible for patient safety and quality at their clinical site. The working group included over 40 participants from over 20 organizations/sponsoring institutions and located across over 10 different countries. Twenty-six of the participants responded to an initial survey review of the

Pathways document (i.e., pathways and properties). In the survey, the participants reviewed each pathway and property in the *Pathways* document and marked it “keep as is”, “modify”, or “delete”. The results of the initial review were then collated and used to inform small and large group discussions held both in-person and online via videoconference.

Results: The discussions focused on any property in the *Pathways* document where less than 80% of the participants indicated to “keep as written” or where more than 11% indicated “modify” or “delete”. The entire group of 40+ participants reviewed and modified as needed the language of 10 properties for Patient Safety; 9 for Health Care Quality; 7 for Teaming; 2 for Supervision; and 1 for Professionalism. None of the Well-being properties were flagged for modification or deletion. After several rounds of iterative discussions and revisions, the group reached consensus on a final version that each participant committed to disseminating to promote conversations with the executive leaders of their clinical sites.

Conclusion: The resulting *CLE International Pathways to Excellence* is a resource that emphasizes the importance of the interface between PGE and the hospitals, medical centers, and clinical sites that serve as CLEs. The document frames each of the pathways and properties from the health system’s perspective, recognizing that health care organizations and their clinical sites create and are therefore primarily responsible for the CLE. This new document provides a tool that can resonate across the international community of leaders dedicated to optimizing the environment for both learners and patient care.

References: CLER Evaluation Committee. *CLER Pathways to Excellence: Expectations for an Optimal Clinical Learning Environment to Achieve Safe and High-Quality Patient Care, Version 2.0*. Chicago, IL: Accreditation Council for Graduate Medical Education; 2019. doi:10.35425/ACGME.0003

Disclosure of Interest: None Declared

Systematic Review on the Frequency and Quality of Reporting Patient and Public Involvement in Patient Safety: (1496) Sahar Hammoud

ISQUA2024-ABS-1496

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¹UCD Centre for Interdisciplinary Research, Education, and Innovation in Health Systems (UCD IRIS), School of Nursing, Midwifery and Health Systems, Health Sciences Centre, University College Dublin, Dublin, ²Department of Oral and Maxillofacial Surgery, University Hospital Galway, Galway, Ireland

Introduction: In recent years, patient and public involvement (PPI) in research has significantly increased; however, the reporting of PPI remains poor (1). The Guidance for Reporting Involvement of Patients and the Public (GRIPP2) was developed to enhance the quality and consistency of PPI

reporting (1). The objective of this systematic review is to identify the frequency and quality of PPI reporting in patient safety (PS) research using the GRIPP2 checklist.

Methods: Searches were performed in Ovid MEDLINE, EMBASE, PsycINFO, and CINAHL from 2018 to December, 2023. Studies on PPI in PS research were included. We included empirical qualitative, quantitative, mixed methods, and case studies. Only articles published in peer-reviewed journals in English were included. The quality of PPI reporting was assessed using the short form of the (GRIPP2-SF) checklist. As this is a systematic review, no ethical approval was required. The review protocol was registered with PROSPERO (CRD42023450715).

Results: A total of 8561 studies were retrieved from database searches, updates, and reference checks, of which 82 met the eligibility criteria and were included in this review. Major PS topics were related to medication safety, general PS, and fall prevention. Patient representatives, advocates, patient advisory groups, patients, service users, and health consumers were the most involved. The main involvement across the studies was in commenting on or developing research materials. Only 6.1% (n= 5) of the studies reported PPI as per the GRIPP2 checklist. Regarding the quality of reporting following the GRIPP2-SF criteria, our findings show sub-optimal reporting mainly due to failures in: critically reflecting on PPI in the study; reporting the aim of PPI in the study; and reporting the extent to which PPI influenced the study overall.

Conclusion: Our review shows a low frequency and sub-optimal quality in PPI reporting in PS research using the GRIPP2 checklist. Researchers, funders, publishers, and journals need to promote consistent and transparent PPI reporting following internationally developed reporting guidelines such as the GRIPP2. Evidence-based guidelines for reporting PPI should be supported to help future researchers plan and report PPI more effectively.

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Disclosure of Interest: None Declared

Using resilience in healthcare (RiH) theory to generate reflective learning from safe care delivered to deteriorating patients: a mixed methods study : (1965) Shalini Ganasan-Ryan

ISQUA2024-ABS-1965

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Introduction: Timely intervention is needed for deteriorating patients to mitigate harmful outcomes, intensive care admissions and preventable cardiac arrests. Rapid response systems (RRS) have been

established internationally to tackle delayed recognition and treatment of deteriorating patients, through coordinated care delivered by intensive care consultants (ICUC) and nurse practitioners (NP). Evidence about RRS effectiveness is mixed, requiring further research on staff-reported outcomes. Whilst implementing a new RRS programme at the largest Health Board in Wales, we used resilience in healthcare (RiH) theory to identify and structure learning arising from everyday care delivery to understand how optimal, sub-optimal and unsafe outcomes were achieved through learning from the different outcomes, to inform and sustain future performance and safety improvement.

Methods: This predominantly qualitative, mixed-methods, case study involved document analysis and non-participant observations (NPOs), followed by informal interviews to clarify findings from the NPOs. A structured, empirical data collection form adopting a human factors lens was used, to describe the work system, processes, and outcomes. This enabled understanding of how staff interacted with work system factors (environment, workload, demand, tools, technology, design, and variable tasks) to deliver care. The NP and ICUC classified patient outcomes generated from each encounter as safe (optimal, sub-optimal) or unsafe, considering the context. Learning activities from each encounter was recorded and analysed to explore how learning from safe and unsafe care outcomes could inform safety improvement. Demographic data was analysed descriptively, and qualitative data analysed using reflexive thematic analysis. Ethical approval was obtained from Cardiff University (CARBS SREC ID 1235).

Results: Fifty-six NPOs took place involving 30 participants who provide care via the RRS (17 NP and 13 ICUC), alongside 130 hours of NPOs (November 2022-May 2023). Seventeen male and 13 female participants were observed. Mean number of years in clinical practice was 17 years (NP) and 21 years (ICUC). Care episodes which resulted in 91 (96%) optimal outcomes, 4 (4%) sub-optimal outcomes and no unsafe outcomes were observed. Proactive initiatives (person-centred care, risk assessment, coaching and mentoring, quality improvement) and reactive learning (protocol updates, missed or poor care) around ways to sustain safe care or areas for improvement for sub-optimal care transpired in 53/56 NPOs (95%). This fed forwards into formal and informal learning activities (governance meetings, audit, planned study days, bedside teaching) aligned to RiH theory 'resilience potentials' such as *responding* to challenges, *monitoring* the environment, *anticipating* disruption, and *learning* from everyday care.

Conclusion: Reviewing care delivery through the lens of RiH theory contributed valuable insights into what worked well and could be sustained, as well as what did not work and could be improved upon, whilst introducing a new initiative at a large healthcare organisation. Our evidence strengthens the case that understanding systems resilience, and related human factors, whilst implementing new improvement initiatives can yield important insights from safe care delivery and outcomes.

Disclosure of Interest: None Declared

Development of key principles for stakeholder involvement in resilient healthcare: a multi-phase, multi-method empirical study: (3281) Veslemøy Guise

ISQUA2024-ABS-3281

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Introduction: Resilience in healthcare is the capacity to adapt to challenges and changes to maintain the safety and quality of care across all levels of the healthcare system. Multiple healthcare system stakeholders, including patients, informal carers, healthcare professionals, service managers and policy makers, are acknowledged to be important contributors to the enactment of resilient healthcare, largely due to their involvement in adaptations necessary for high quality healthcare services. To expand our knowledge of how to facilitate and support resilient healthcare systems, we need a better understanding of adaptive capacity and the characteristics and contexts of adaptations. This includes insight into which healthcare system stakeholders are involved in adaptations and how and in what circumstances the different stakeholders contribute to the adaptations necessary for resilience at all system levels. We therefore sought to establish key principles for stakeholder involvement in resilience in healthcare, to aid facilitation of much needed knowledge and understanding. The aim of the study is to describe the conceptual development of a broad set of principles for stakeholder involvement in resilient healthcare.

Methods: Principles for stakeholder involvement in resilient healthcare were developed using a multi-phased, multi-method empirical study design. The initial exploratory phase incorporated such methods of data collection and analysis as case-study, scoping review, stakeholder analysis, and meta-synthesis of empirical studies. The subsequent phase entailed workshops and focus groups with a variety of stakeholders from the Norwegian healthcare system.

Results: A set of interconnected principles for stakeholder involvement in resilience in healthcare were established to account for their diverse roles in adaptations and the resilient performance of the system. The principles are to 1) Map patient factors; 2) Consider capacity for family involvement; 3) Assess the care setting; 4) Consider healthcare staff factors; 5) Assess degree of contact and collaboration; 6) Consider influence of leadership; and 7) Evaluate applicable laws, policies and guidelines. See Figure 1 for an illustration of the seven principles and how they relate to each other. The presentation will expand upon the development process and will describe the content of the principles in more detail.

Image:



Conclusion: Empirically grounded principles for stakeholder involvement in resilient healthcare can aid understanding of and facilitate an increase in adaptative capacity and resilient performance across all levels of the healthcare system.

Disclosure of Interest: None Declared

Integration of Team Resource Management with Simulation Training to Promote Obstetric and Neonatal Safety: (2469) Wei-Ting Hsu

ISQUA2024-ABS-2469

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Introduction: Obstetric and neonatal safety has become one of the key priorities promoted by the World Health Organization in recent years. Early identification, prevention, and response to potential risks during pregnancy, childbirth, and the postpartum period can reduce the occurrence of adverse events. Obstetric teams often face emergency or high-risk delivery situations that require interdisciplinary collaboration. The ability of personnel to recognize emergencies, provide clinical interventions, communicate effectively, and collaborate as a team is crucial. Incorporating the concept of Team Resource Management (TRM) and utilizing scenario-based simulations can enhance the clinical

skills and situational awareness of healthcare professionals, ensuring they can identify emergencies and provide appropriate clinical interventions.

Methods: 1. Leader Support and Participation

Both supervisors and staff in obstetrics and pediatrics undergo training in TRM. The training utilizes theoretical frameworks, scenario videos, and practical case studies to enhance participants' clinical application experience.

2. Implementation of Scenario Simulation Training

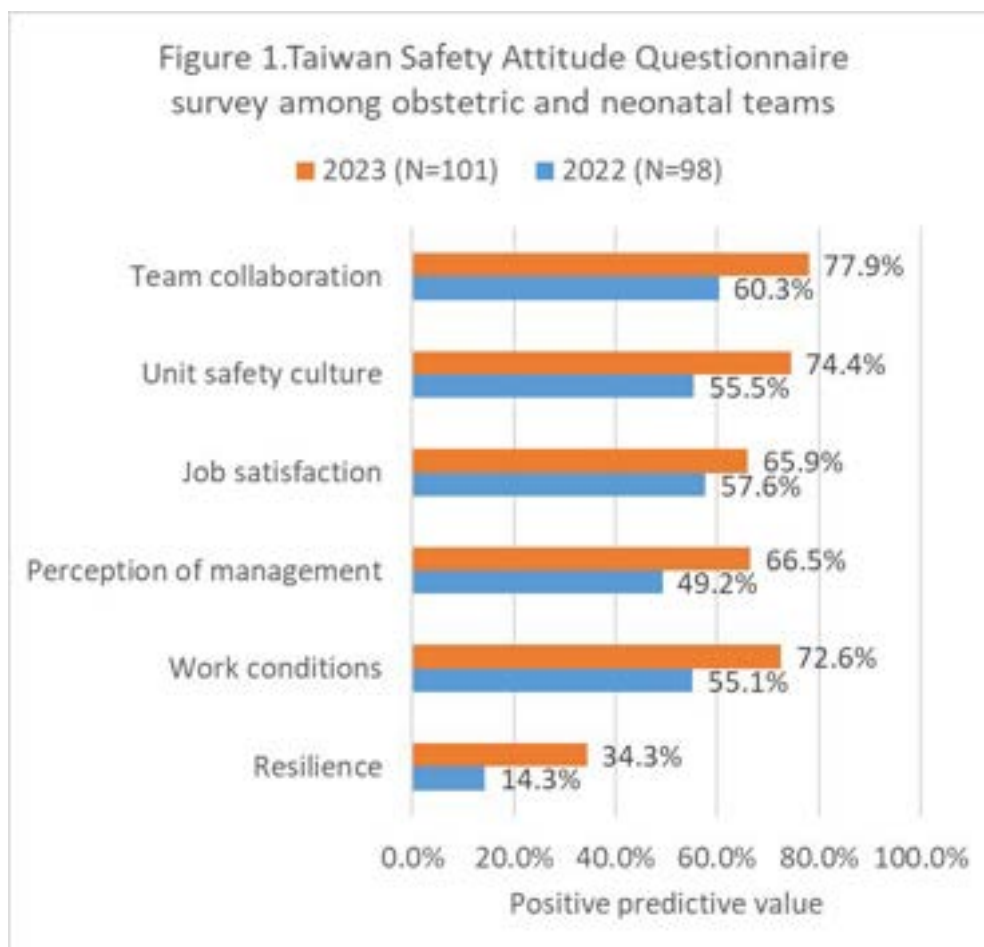
Based on reported adverse events during deliveries, high-risk scenarios are designed, including postpartum hemorrhage, severe preeclampsia with complications, emergency delivery and neonatal resuscitation, uterine rupture, emergency cesarean section for suspected placental abruption, home quarantine or confirmed COVID-19 cases, transfer of patients with fetal distress and pulmonary edema, and premature infant resuscitation. Simulations take place in obstetric simulation rooms using simulation models and standardized patients. Each session involves five participants and lasts for two hours, including scenario-based role assignments, familiarization with the environment and equipment, simulation exercises, debriefing, feedback from instructors, and participant discussions. Knowledge sharing occurs after each session.

3. Training of Instructors

Healthcare personnel from obstetrics and pediatrics with experience in team resource management training and simulation participate as instructors. They are responsible for curriculum design, structured assessment of clinical interventions and teamwork, scenario setup, and standardized patient portrayal. Through accumulated experience, they ensure the sustainability and continuity of training.

Results: During the implementation period from 2022 to 2023, all participants (N=101) completed the basic course in TRM, designed eight scenario-based teaching cases, conducted 16 simulation sessions with an average of 15 participants per session, and trained four instructors. Statistical analysis of pre- and post-training assessments revealed an improvement in overall team performance from an average of 3.6 to 4.1 (out of 5) and in individual performance from an average of 2.9 to 3.5 (out of 5). The most significant improvements were observed in leadership and situational awareness. Through the implementation of simulation training, the Taiwan Safety Attitude Questionnaire (SAQ) survey¹ shows that, TRM proved to promote positive patient safety culture among obstetric and neonatal teams (Figure 1).

Image:



Conclusion: Introducing TRM and scenario-based imulation training helps personnel to cultivate a spirit of cross-team collaboration, enhance their ability to deal with high-risk situations, and contributes positively to the culture of organization safety.

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Disclosure of Interest: None Declared

Lightning Talks

Patient Electronic Health Record Accessibility Optimization with root-cause analysis in a Medical Center of Taiwan--A Digital ECGs Uploading study: (2546) Chung Chieh Wen

ISQUA2024-ABS-2546

C. C. Wen¹ on behalf of Project Supervisor of patient EHR uploading team , Y.-F. Chang^{1,*} on behalf of Team Leader of Patient EHR Uploading Project , W.-T. Liu² on behalf of Clinical representative of patient EHR uploading project, C.-M. Chu³ on behalf of Consultant of Biostatistics and Methodology and Ya-Lin Chen , Health Insurance Declaration Department Administrator ;Chung-Chi Huang, Leader of Medical IT Department ; Guei-Rung Chen, Medical IT Programmer,TSGH

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Introduction: Patient-Accessible Electronic Health Records(PAEHRs) are digital versions of a patient's medical records which containing laboratory test reports, medical images, outpatient medical records and discharge summaries etc. The goal is to empower patients easily access to their own health information and actively participate in healthcare decisions. Taiwan Ministry of Health and Welfare(MOHW) White paper 2025 points out one of key objectives is to optimize EMR Interoperability and PAEHRs Accessibility for better healthcare. However, different hospital information systems, incompatible equipments and human factors make uploading data to public cloud more difficult. We would like take Digital ECGs data for example to evaluate uploading workflow with root-cause analysis for optimizing Patient Electronic Health Record Accessibility.

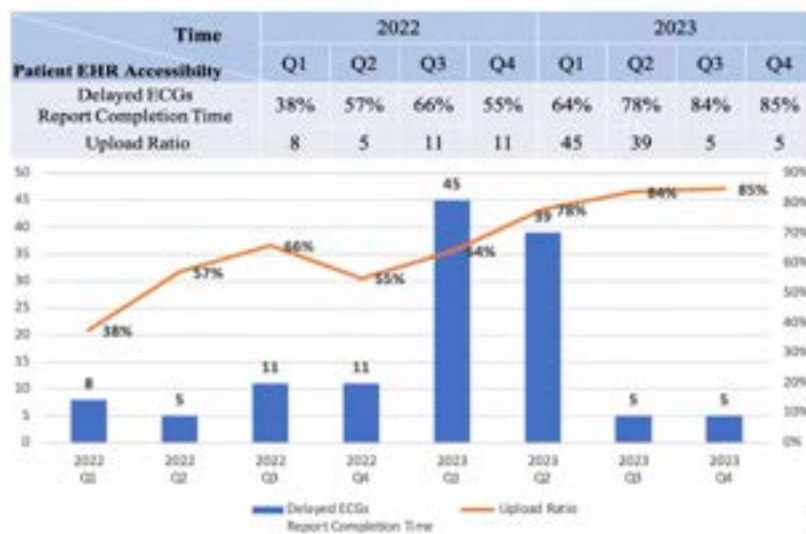
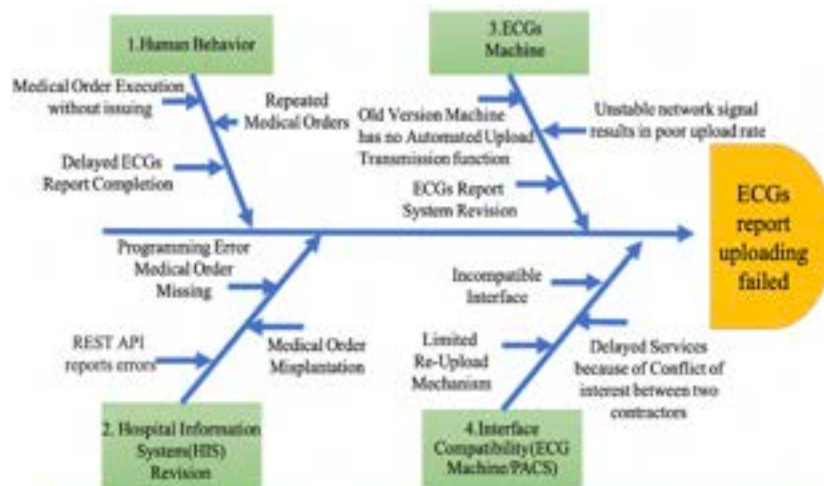
Methods: To strengthen the disclosure of real-time medical information to patients on Taiwan National Health Insurance(NHI) public cloud, we establish PAEHR Uploading Project Team to monitor the uploading rate and optimize the workflow in October 2021.

We collected digital electrocardiograms (ECGs) report upload data from 2022 Q1 to 2023 Q4 and employed Root Cause Analysis (RCA) to pinpoint causative factors with Ishikawa Diagram. Then we applied Plan-Do-Check-Act (PDCA) management techniques for Standard Operating Procedures (SOPs) rolling adjustment and continuous uploading improvement. The 5 SOPs of ECGs Uploading are shown as below: 1. Issue Medical Order 2. Exam Room (ECG Room) check-in 3. Physical Exam and Medical Imaging Checkup Execution 4. ECGs Report Completion 5. Report Uploading.

Results: The quarterly average upload rate of ECGs report increased from 38%(2022 Q1) to 85%(2023 Q4) and ECGs Report Completion Time shortened from 45 days(2023 Q1) to 5 days(2023 Q4). It means more patients could access to their EHR in a shorter period of time.

The RCA analysis results(Shown as Ishikawa Diagram) found four major factors: Human Behavior, Hospital Information System(HIS) Revision, ECGs Machine, Interface Compatibility. The total annual amount of failed ECGs upload case is dropped from 26,994 to 21,085 cases. The percentage of Human Behavior factor is reduced from 48.9%(13,204/26,994) in 2022 to 15.7%(3,178/21,085) in 2023 after PDCA and SOP execution. However, compared to 2022(21.1%), HIS Revision factor rised to 54.3% in 2023. We inferred from our ER HIS2 system implementation in Nov. 2022. It's affected by programming errors, but got improved after 2023Q3. The ECGs Machine, Interface Compatibility factors remained almost the same (14.5%& 15.5%) for both year.

Image:



Conclusion: The impact of upload data to the public cloud is manifold. The lesson-learned from this study is Early Intervention Monitoring and Preparation, such as Cross-Functional Team Building, HIS revision response and EHR Accessibility Indicator set up (Upload Rate, ECGs Report Completion Time). Our team covers Health Information Manager, Dr. and ECGs Technician, IT Programmer, Insurance Declarer and Contractors for problem solving.

By statistics, Human Behavior is the main factor to stop uploading data in 2022 (Repeated Medical Orders, Order Execution without issuing, Delayed ECGs Report Completion), thus we did PDCA and adjusted our step to have on-site clinical survey in the beginning of 2023. Let doctors and ECGs Technician follow 5 SOPs. Afterwards, our IT professionals set up a dashboard with PowerBI for whole members' monitoring. By those actions, we found 2023Q3 upload rate is 84% which exceeded 80% for the first time and ECGs report could be reached within 5 days after 2023Q3 for better Patient EHR Accessibility.

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Disclosure of Interest: None Declared

EVALUATION OF HOSPITAL MANAGEMENT STRATEGIES RELATED TO PANDEMIC: (3212) Keziban AVCI

ISQUA2024-ABS-3212

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Introduction: Health institutions are faced with mass applications in periods when diseases spread rapidly, regional disasters and epidemics affect large masses due to urbanisation, and intense migration movements are experienced due to reasons such as war-disaster-epidemic. Hospitals operate through coordinated processes that require effective management and uninterrupted supply lines. In this respect, pandemic periods are crisis periods where the importance of proper management of human resources, equipment, materials and information comes to the fore. Especially considering the uncertainty of the therapeutic, economic and managerial effects on hospitals, there is a need to examine the preparedness of hospitals for these unexpected pandemics. In this context, this study aims to examine pandemic management strategies in tertiary education and research hospitals in Turkey and to evaluate the organisational competencies of these hospitals.

Methods: The population of the study consists of a total of 167 hospitals of all ownership types, public-university and private, which have the competencies to conduct education and research operating in Turkey. No sample selection was made in the study and the quality directors of the hospitals in the universe were invited to participate in the study. A total of 58 training and research hospitals that responded completely to all questions were included in the study. This study is a cross-sectional and descriptive study conducted between January 2022 and May 2022. Hospital management strategies were evaluated according to the standards given in the "COVID-19 Hospital Readiness Assessment Tool" published by the Institute for Healthcare Improvement (IHI). The data were analysed using SPSS version 26. Descriptive statistics related to the data are given.

Results: In nearly 91% (n=53) of hospitals related to the Planning, Decision Making and Communication Structure dimension, the task team reported coordinating across the health system to share supplies, coordinate testing, standardise communication and processes, and manage capacity expansion. For the Monitoring and Improvement Processes dimension, almost all hospitals (89%)

reported that management frequently visits service areas to listen to and learn from staff, and that a communication process is managed with a continuous flow of information to disseminate learning among clinical and operational staff. Similarly, in a large proportion of hospitals, it is reported that training to prepare, support and improve all staff against uncertainties is routinely provided, and new practices are quickly tested and used to improve processes. In this study, it can be said that the functional readiness of training and research hospitals in Turkey is at an adequate level.

Conclusion: Hospitals should be prepared for possible pandemics to provide timely, effective, rapid and reliable healthcare services to patients and to reduce mortality. In this respect, health managers should be fully aware of the risks and work to improve their ability to cope with them.

Disclosure of Interest: None Declared

Identifying the prevalence and distribution of adverse drug events in children within community settings: A scoping review: (1832) Kim Sears

ISQUA2024-ABS-1832

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Introduction: Overview: Children present unique medication prescribing and monitoring considerations as weight-based dosing calculations are often required, a situation further complicated by a lack of standardized paediatric easy-to-use dosage formulations. [1] An estimated 75% of licensed pharmaceuticals in North America have never been tested in children, yet they are routinely utilized in this population without adequate evidence on their safety and efficacy. [2] The Canadian Medication Incident Reporting and Prevention System (CMIRPS) defines a medication incident as “a medication incident is a mistake with medicine, or a problem that could cause a mistake with medicine”. [3] Paediatric medication related events or adverse drug events (ADEs) are the most frequent type of medical error involving children. [4,5] Despite this common occurrence there is limited data describing the frequency and epidemiology of their occurrence, particularly in the non-inpatient setting.

Methods: The search strategy will aim to locate both published and unpublished studies. An initial limited search of MEDLINE was undertaken on April 19, 2023 to identify articles on the topic. An update will be completed in February 2024. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles were used to develop a full search strategy for Medline, Embase, CINAHL with Full Text, and Web of Science.

Results: The extracted data will be presented in diagrammatic or tabular form in a manner that aligns with the objectives of this scoping review. A narrative summary of findings table will describe how included studies relate to the research objective and questions.

Conclusion: By creating a summary from this scoping review of the current prevalence and distribution of ADEs in children aged 19 or under, pharmacies will have increased knowledge of areas needing improvement to decrease these errors. This scoping review will provide stakeholders with insight so they can effectively implement practices to better address emerging challenges.

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Disclosure of Interest: None Declared

The impact of a consensus process on implementation of interventions into healthcare settings: A qualitative study: (1997) Lisa Pagano

ISQUA2024-ABS-1997

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Introduction: Ensuring patient care is in line with evidence-based guidelines is fundamental for improving global healthcare systems. Care pathways, such as perioperative pathways for elective surgeries, can play a key role in reducing variation from guidelines and, in doing so, enhance patient outcomes¹. Clinicians practice a diverse array of care pathways based on evidence-based practice, experience and training, and professional preference. The challenge, therefore, lies in choosing a strategy to develop and implement these interventions that can achieve agreement and buy-in amongst clinicians. Using consensus discussions could address this challenge however, little is known about how these discussions work in practice². This study sought to: (i) examine how different consensus processes influence the implementation of standardised care pathways and; (ii) develop a practical model for facilitating local consensus discussions within healthcare settings, ultimately improving the implementation of interventions for better patient care.

Methods: A qualitative study was conducted in a private hospital in metropolitan Sydney, Australia using modified grounded theory methodology, where concepts are built from the ground up³. Twenty-five participants from clinical and non-clinical disciplines were recruited by convenience sampling. Data were collected using semi-structured interviews and participant observations of meetings related to consensus development amongst clinicians or implementing the agreed upon pathways. Data collection and analysis occurred concurrently and continued until theoretical saturation was achieved. Interviews and field notes were recorded and transcribed verbatim. Data were analysed in NVivo using coding, constant comparison, detailed memo writing and data interpretation.

Results: The hospital approached consensus-building in two different ways: i) multidisciplinary team-based discussions or ii) a leadership driven approach. Both approaches achieved consensus between clinicians within similar time frames however, influenced implementation of the intervention in different ways. A model was constructed from these findings, involving four key steps integral to achieving consensus and ultimately leading to effective implementation. To conduct informal consensus discussions, organisations had to establish a consensus group with key expertise, determine the appropriate methods to achieve consensus, coordinate consensus meetings and reach consensus. Causal mechanisms were identified demonstrating that achieving consensus through one method triggered distinct implementation responses. For example, the inclusion of staff on the ground in the consensus process resulted in greater clinician engagement and buy-in, leading to greater adherence to the pathways. Conversely, when only leadership and management were involved in initial discussions, slower responses from on the ground staff were reported. Findings suggest that multidisciplinary engagement, streamlining workflows, highlighting the value of what is being implemented and using targeted behaviour change methods promote adoption and successful implementation. Additional considerations for implementing interventions using consensus discussions included the concepts of; surgeons valuing their autonomy, effective communication between staff and how patients understand the new processes.

Conclusion: This model provides a valuable blueprint for healthcare organisations seeking to understand and optimise the informal consensus process for developing and implementing interventions, such as care pathways, into clinical practice. An in-depth understanding of these processes can empower clinicians to employ this strategy more effectively and is essential for policymakers aiming to maximise implementation efforts to bring about tangible improvements in healthcare systems.

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Health for People and Planet: Building Bridges to a Sustainable Future: (2421) Lisa Pagano

ISQUA2024-ABS-2421

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Introduction: A key component of building sustainable health systems is strengthening the front lines of care, especially emergency departments and primary care settings. Globally, these settings are challenged, amongst other factors, by ageing populations, a burnt-out workforce, future pandemics, and worsening climate change effects. Learning Health Systems (LHSs) have been advocated as a solution to improve care quality and patient safety by continuously embedding research and data into routine practice, thereby enabling the front lines to learn and improve on-the-go^{1,2}. So: *how far have the front lines of care progressed in adopting LHSs principles?* Many experts think progress is critical in delivering better care and being prepared for looming threats to the system. This rapid literature review investigated the breadth of LHS approaches adopted in primary care and emergency settings and the factors influencing their adoption.

Methods: To comprehensively consider this question, three databases (Embase, Scopus, PubMed) were searched from January 2018 to March 2023 for literature reporting on LHSs in primary care or emergency settings. Articles with a key focus on LHSs in primary care (general practice, allied health, multidisciplinary primary care, and community-based care) and/or emergency settings were screened to assess their eligibility. Data from included articles were extracted into a purpose-designed Excel spreadsheet and catalogued according to the five components of the Zurynski-Braithwaite 2020 LHS model³: *science and informatics*, *patient-clinician partnerships*, *incentives*, *continuous learning culture* and *structure and governance*.

Results: Of the 37 articles included and analysed, the vast majority (86%) were focussed on primary care and conducted in North America (68%). *Science and informatics* was the most commonly employed LHS component, in which 92% of articles examined technological tools, systems, or measures that had been implemented to improve care quality (e.g., electronic health records to improve adherence to guideline-directed care). *Continuous learning culture* was a focus of 84% of articles, most frequently centred on the creation of teams or collaboratives to share quality improvement learnings. *Structure and governance*, the third most common component (76%), focused primarily on partnership structures to strengthen research and leadership engagement. Less of a focus were *incentives* (e.g., compensation to encourage staff training) and *patient-clinician relationships* (e.g., intervention co-design). Further, patient satisfaction and health outcomes in the context of LHSs were rarely explored. Barriers to adopting LHSs at the front lines of care included data infrastructure

that was too complex, communication challenges between healthcare professionals, and limited resources to support improvement. Facilitators included stakeholder buy-in, positive relationships, and forward-planning for interventions.

Conclusion: This study found a breadth and range of LHS approaches adopted in primary care and emergency settings, internationally. Many care settings are providing clinicians with actionable data and tools to learn from patient encounters; are facilitating a culture of continual quality improvement; and are effectively managing their learning environment. Less progress than we would prefer is being made along LHS lines to provide incentives and take patient preferences into account in decision-making processes. Becoming an LHS requires good policy to support resource commitment, and funding models that enable partnerships within and across organisations. Multidisciplinary learning and patient co-design must be a core focus to facilitate empowered, informed, and enabled individuals and teams at the front lines of care.

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Disclosure of Interest: L. Pagano: None Declared, S. Spanos: None Declared, G. Dammary: None Declared, L. A. Ellis: None Declared, C. L. Smith: None Declared, G. Fisher: None Declared, D. Foo: None Declared, J. Braithwaite Grant / Research support from: Holds multiple grants funded by the European Union, and the Australian National Health and Medical Research Council and Medical Research Future Fund

Student Nurse Retention – identifying risks and best practices for retention via retrospective data analysis: (2921) Robert M. Cook

ISQUA2024-ABS-2921

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Introduction: Retaining pre-registration student nurses to improve the supply of registered nurses in the healthcare workforce is important for ensuring adequate care in the face of growing demand. Attrition for pre-registration student nurses in the UK is approximately 24% (Health Education, 2019); efforts to retain students could make a significant contribution to the supply of registered nurses in England, where there were 43,619 nurse vacancies in the quarter ending in December 2022 (NHS

Digital). In 2020, the global shortage of nurses was estimated at 5.7 million (International Council of Nurses, 2020).

Student retention programmes have employed qualitative methods to characterize the needs of the cohort and, while these lessons are key, each study represents a static snap shot of a historical student cohort. The challenge is to understand to what extent we can perform a low resource evaluation of recent nursing cohorts to aid intervention, either as overarching lessons or as identification of at risk individuals. The operational imperative to capture information about students, customers and service users offers a wealth of data which, in combination with the disciplines of statistical learning, pattern recognition and predictive analytics, presents an easy to implement analysis.

This study aims to examine the feasibility of implementing a quantitative approach to student nurse retention. It explores the steps needed to identify, extract and analyse existing retrospective operational data from a higher education institute, with the expectation of disseminating the model both as key inferential patterns and a predictive algorithm.

Methods: Three outcomes were defined:

Likelihood for a student to leave a nursing course within a year of enrolment (*Y1 Model*).

Likelihood for a student to leave a nursing course within a year of enrolment, given they have not left in their first year (*Y2 Model*)

Likelihood a student fails to complete a nursing course given they have not left in their first two years (*Y3 Model*)

Following initial stakeholder events, a variable pool was defined including demographics, module scores, incidents of intermission and discipline. Data sets were extracted from the universities business intelligence warehouses, applying a random hash function to minimize identifiability risks. Analysis was performed via bi-directional stepwise binary logistic regression, with data divided into training and validation sets in a 3:1 ratio. Model quality was measured via the ROC-AUC method.

Results: Preliminary results suggest that in the 1st year of study of a nursing course, young students (aged 18-21) and those that identify as male have the greatest risk of being lost from the course. In later years, the predominant factors were if the student had previously taken a period of intermission and their module scores. The data suggests the period after returning from intermission, and the first clinical placement are critical to the student journey.

On applying the model to the data of current students, individual risk scores were calculated and converted to an early warning score. Interventions focused on the highest risk for attrition are currently ongoing.

Conclusion: This work demonstrates the viability of pairing existing qualitative student retention programmes with predictive analytics. The triangulation of acute voiced issues with chronic signals offers an opportunity to better focus HE resources to ensure lower attrition rates and better meet the staffing demands of modern healthcare.

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Disclosure of Interest: None Declared

Promoting & Encouraging Exception Reporting (PEER) Quality Improvement Project: (1709) Schnell D'sa

ISQUA2024-ABS-1709

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Introduction: In 2016, NHS England introduced Exception Reporting in the 'Junior Doctors and Dentists in Training' contract. This is a process whereby doctors inform their employer when "their day-to-day work varies significantly and/or regularly from the agreed work schedule"¹ and can receive pay and other resolutions. Understaffing concerns may also be highlighted to aid the trust with appropriate resource allocation.

Our aim is to improve the proportion of junior doctors in North West Anglia Foundation Trust (NWAFT) who understand how to Exception Report and complete the practice. Additionally, we aim to understand the rationale behind why doctors choose not to Exception Report, and the impact of overtime working on staff and perceived patient safety.

Methods: A quality improvement project was completed using PDSA cycles to assess the effects of changes implemented. Data collection occurred via surveys distributed in February 2023 (first cycle) and November 2023 (second cycle). NWAFT's junior doctors, in all grades and specialties, were invited to complete a digital (Microsoft Forms) or paper version of the same survey. This data was analysed using Microsoft Excel. Root-cause-analysis was performed with Ishikawa diagrams and theory testing with driver diagrams. Initial findings were presented at the trust's Board of Directors meeting with the Chief Medical Officer (CMO) and Guardian of Safe-Working (GoSW) present. Here, we sought to directly include leadership members at the trust in our aim to improve Exception Reporting. Further presentations of PEER occurred at local and regional QIP conferences.

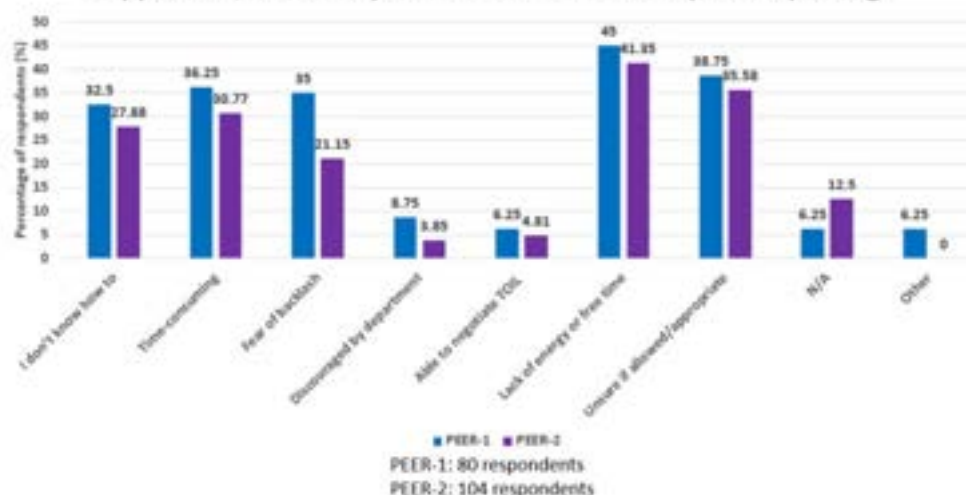
Working closely with NWAFT's CMO and GoSW, survey results were shared with all junior doctors. Barriers to Exception Reporting were identified from the survey responses, and targeted changes were discussed then enacted. This was done in several ways. We implemented instructional posters in every doctors' office across Peterborough City Hospital and circulated informational, purpose-designed videos and posters to doctors. These resources were also shared at departmental inductions. Additionally, with the help of rota coordinators and departmental leads, emails were sent to all supervising consultants supported by the CMO emphasising the importance of encouraging Exception Reporting. Moreover, we facilitated the resolution of junior doctors' technical difficulties related to accessing the Exception Reporting portal.

Following implementation of interventions, data collection amongst NWAFT's junior doctors was repeated in November 2023 with the same survey as the first cycle. We sought to compare results and assess the impact of the interventions.

Results: There were 80 junior doctors who responded to the survey in our first cycle, compared with the 104 respondents of our second cycle. Both surveys had respondents ranging across most grades and specialties. There was an increase in the proportion of doctors who were aware of how-to Exception Report from 56.25% in the first cycle to 61.54% in the second cycle. More doctors reported that they had Exception Reporting explained to them during their departmental inductions rising from 22.5% to 29.81% in the first and second cycle respectively. However, 35.58% of respondents remained unsure of when it was appropriate to Exception Report in the second cycle compared to 38.75% in the first cycle. The median frequency of junior doctors who Exception Reported their overtime hours shifted from 'Never' to 'Rarely' in the second cycle. There was also a rise in respondents who found the process of Exception Reporting 'Very Easy' from 6.25% to 13.46% in the second cycle. Amongst the barriers to Exception Reporting identified in Figure 1, there was a reduction in junior doctors who shared that Exception Reporting was discouraged by their department from 8.75% to 3.85% in the second cycle. Of the respondents, 7.69% of doctors reported working approximately >15 hours of overtime each month in the second cycle compared to 10% in the first cycle. Overtime work was reported to have a detrimental impact on staff. The second cycle data shows that 73.08% reported burnout/fatigue, 49.04% expressed reduced morale and lack of work/life balance was noted by 73.08%. Critically, overtime working was perceived by 33.65% to result in suboptimal patient care.

Image:

Figure 1: Barriers to Exception Reporting for junior doctors at NWAFT
If applicable, what are your reasons for not exception reporting?



Conclusion: The PEER quality improvement project has shown a rise in the proportion of junior doctors who know how to exception report and complete the practice, amongst other measures. Thus, suggesting the interventions have been making a positive impact. However, there were multiple barriers to Exception Reporting identified that require further interventions in future PDSA cycles. To promote sustainability of our changes, we aim to appoint junior doctor and consultant Exception Reporting champions roles in every department, who can continue to promote and encourage Exception Reporting practices. This quality improvement project is pivotal to promote safe working practices in junior doctors, prevent burnout and ensure optimal patient care.

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Disclosure of Interest: None Declared

Distilling implementation and policy strategies for sustainable healthcare innovation using policy labs: A Hospital at Home case study: (1852) Yi Feng Lai

ISQUA2024-ABS-1852

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Introduction: The evolution of hospital care is witnessing a remarkable shift with the recent expansion of Hospital at Home (HaH) programmes. Many have emerged in the last five years in response to the acute shortage of hospital beds triggered by the COVID-19 pandemic and challenges posed by ageing populations. However, lack of effective scale-up strategies strongly suggest that evidence gap in implementation and policy research to identify and test strategies to increase adoption and sustainability across different healthcare systems. This study aims to use policy labs to bring together stakeholders to generate and prioritise strategic recommendations to facilitate nationwide scaling-up of HaH in Singapore.

Methods: Using three policy lab sessions (Hinrichs-Krapels, 2020), we gathered data from 23 key stakeholders including HaH programme leads, programme implementers, and health ministry's policymakers. Each of the session consisted of two parts- (1) Review of barriers and facilitators: open for discussion for participants to clarify issues and opportunities relevant to HaH scaling-up; and (2) Strategy prioritisation and co-creation, where participants outlined strategies and determine measures of success. Field notes were taken in each session. Data were compiled, compared, and triangulated with discussion materials generated for actionable insights, which were then used for sensemaking and generating strategy recommendations.

Results: Our research provides comprehensive insights into the readiness of Singapore's health system for implementing HaH and illuminates effective multi-level strategies for scaling up this model, including (1) supportive regulatory policy redesign, (2) sustainable healthcare financing, (3) deliberate evidence-to-policy translation, (4) effective policy-to-operations communication, and (4) enhanced programme awareness among target patient and provider populations. Specific strategy recommendations were plotted on an action time scale, and accountable parties were identified along with key landing spots for each strategy.

Conclusion: The collaborative and iterative policy lab approach to strategy development involving multi-level health system partners allowed for the exploration of implementation and policy strategies for the engagement of referrers, patients and caregivers, and recommendations for process optimisation and sustainability. The actionable insights generated are critical for HaH to be a core part of every acute hospital's care strategy and extend its impact to transform patient care on a larger scale. Beyond the tangible output generated from the policy lab sessions, the study also provided a platform for implementers to be involved in the policymaking process; including creating new networks, collaborations and partnerships.

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Setting Standards in Long Term Care: Identifying Achievable Benchmarks of Care for Long Term Care Facilities: (1505) Maria Carolina Inacio

ISQUA2024-ABS-1505

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Introduction: Benchmarks are an important aspect of quality measurement and evaluation of long-term care facilities (LTCF) performance. While benchmarks can be set using different approaches, data driven benchmarks focus on achievability and highlight real work examples. This study's objectives were to estimate achievable benchmarks of care for twelve quality indicators across Australian LTCFs and identify LTCFs characteristics associated with benchmark attainment.

Methods: Study Design: A cross-sectional study was conducted, using integrated population-based datasets from the aged care, health care, and social welfare sectors contained within the National Historical Cohort of the Registry of Senior Australians (ROSA). All LTCFs residents in 2019 were included. Twelve risk-adjusted quality indicators, including exposure to high sedative load, antipsychotic use, chronic opioid use, antibiotic use, premature mortality, fall-related hospitalisations, fractures, hospitalisations for medication-related adverse events, hospitalisations with weight loss and malnutrition, delirium and/or dementia related hospitalisations, emergency department presentations, and hospitalisations with pressure injuries were examined using the ROSA datasets. Achievable benchmarks were defined as the average performance of top-ranked facilities providing care for at least 10% of all residents nationally, and indicator-specific achievable benchmarks for 2019 were estimated using the Bayesian adjusted performance fraction ranking, as per the Achievable Benchmarks of Care (ABC) approach. Logistic regression models estimated facility characteristics associated with achievable benchmarks of care attainment. Population Studied: 2746 LTCFs and 244,419 older (≥65 years) residents between 01/01/2019 and 31/12/2019 were studied. Overall, the cohort was mostly female (65%), with a mean age of 85 years (standard deviation=7.9), and 56% had dementia.

Results: The achievable benchmarks of care for medication-related adverse events (0%), premature mortality (0.07%), weight loss hospitalisations (0.1%), pressure injuries (0.2%), and delirium and dementia hospitalisations (0.3%) were very low and 21-69% of LTCFs met these benchmarks. The achievable benchmarks of care for fractures (1.3%), falls (4.0%), and emergency department presentations (5.1%) were low and between 7-11% of facilities met these benchmarks. The achievable benchmarks of care for antipsychotic use (10.7%), opioid use (23.6%), high sedative load exposure (27.4%), and antibiotic use (47.8%) were met by 6-7% of LTCFs. Generally, smaller (<60 residents) LTCFs compared to medium (60-149 residents) and larger (≥150), and government owned LTCFs compared to private and not-for-profit LTCF, were more likely to achieve the estimated achievable benchmarks of care.

Conclusion: This is the first national estimation of achievable benchmarks of care for Australian LTCFs and has identified real world examples of LTCFs with relatively better national performance. The

estimated benchmarks are realistic starting goals for LTCFs working towards performance improvement. Smaller and government owned LTCFs have consistently been identified in the Australian literature to be associated with higher quality of care and should be further investigated to identify aspects of their care models contributing to better resident outcomes.

Implications for Policy or Practice: The findings suggest that facility size and ownership are important factors facilitating achievement of high-quality care. They highlight the need for tailored policy interventions and practical strategies to improve care quality in diverse facility types. This includes targeting the factors likely underpinning these associations such as service access, care models, and workforce availability.

Disclosure of Interest: J. Schwabe: None Declared, R. Jorissen: None Declared, G. Caughey: None Declared, T. Comans Consultant for: the Australian Government Department of Health and Aged Care and sits on an Advisory Board for Star Ratings for Residential Aged Care., O. Ryan: None Declared, M. Inacio Consultant for: the Australian Government Department of Health and Aged Care and sits on an Advisory Board for Star Ratings for Residential Aged Care.

Measures or mitigating the negative effects of patient participation in patient safety: a qualitative study: (1444) Michael Van Der Voorden

ISQUA2024-ABS-1444

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Introduction: Patient participation is a strategy to improve patient safety. Indeed, recent research shows the added value in hospitals of patient participation in patient safety. Furthermore, to the improvements and positive effects that have been observed, there are also studies that identify negative effects. This study focuses on bringing together the separate negative effects that have been previously reported in the literature. In addition, the aim of this study is to generate an overview of measures that can mitigate the negative effects of patient participation in patient safety.

Methods: This study was conducted in the obstetrics department of a tertiary academic center in the Netherlands. An explorative single case study included sixteen interviews with professionals (N=8) and patients (N=8). The negative effects of patient participation in patient safety and the measures that could mitigate the negative effects of patient participation in patient safety were both deductively identified and analyzed.

Results: Four negative effects of patient participation in patient safety were identified. These can be summarised as follows: patients' confidence decreases, the patient–professional relationship can be

negatively affected, more responsibility can be demanded of the patient than they wish to accept and the professional has to spend additional time on a patient. Eighteen measures were identified that mitigated the negative effects of patient participation in patient safety. These measures were categorized into five themes: 'structure', 'culture', 'education', 'emotional', and 'physical and technology'. These five categories reflect the current approach to improving patient safety which is primarily from the perspective of professionals rather than of patients.

Image:

Categories	Measures	Mentioned by
Structure	Appoint a case manager Make time for adequate attention Provide information concerning responsibilities Prepare well for childbirth Clarify role of partner or family	Patients / professionals Patients / professionals Patients / professionals Patients / professionals Patients / professionals
Culture	Patient-centered culture change Encourage patient participation Actively listen to the patient Be transparent Work unambiguously	Patients / professionals Professionals Patients / professionals Patients Patients/ Professionals
Educational	Improve negotiation skills Train on shared decision-making Ensure systematic feedback	Professionals Patients / professionals Patients / professionals
Emotional	Share stories Demonstrate leadership Manage expectations	Patients / professionals Professionals Patients /professionals
Physical and technology	Create app for patients' questions Clarify the patient journey	Patients / professionals Professionals

Conclusion: This study identifies and brings together four negative effects of patient participation in patient safety that have previously been individually identified elsewhere. In our interviews, there was a consensus among patients and professionals on five different forms of participation that would allow patients to positively participate in patient safety. Besides, most of the identified measures are linked to changing the culture to generate more patient-centered care and change the current reality, which looks predominantly from the perspective of the professionals and too little from that of the patients. Furthermore, none of the suggested measures fit within a sixth anticipated category, namely, 'politics'. Future research should explore ways to implement a patient-centered care approach based on these measures. By doing so, space and time are created to elaborate on these measures and integrate them into the organizations' structure, culture and practices.

Disclosure of Interest: None Declared

Longitudinal relationship between Vitamin D supplementation and falls incidents in residential aged care: Implications for Falls Prevention Programs: (3010) Nasir Nasir

ISQUA2024-ABS-3010

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Introduction: Vitamin D plays an essential role in supporting musculoskeletal health, and supplementation may lower the risk of falls. Vitamin D supplementation may be particularly beneficial in residential aged care (RAC) settings, given the high prevalence of Vitamin D deficiency within this population. However, past research on the effects of vitamin D supplementation on falls in RAC has reported inconclusive findings, partly due to study design limitations. We utilised a longitudinal study design to assess the association between the use of vitamin D and falls over 36 months in RAC.

Methods: A longitudinal cohort study was conducted using routinely collected electronic data extracted from 27 RAC facilities in Sydney, New South Wales, Australia. Study inclusion criteria were residents who: were permanent residents aged 65 years or older; admitted for the first time on or after the study start period of July 1, 2014, and were long-term residents (>30 days admission). We identified daily vitamin D usage over 36 months, and measured adherence using the Proportion of Days Covered (PDC) metric. PDC represents the proportion of days that residents were covered by vitamin D supplements with a value of $\geq 80\%$ signifying optimal adherence. Primary outcomes were the number of all falls and injurious falls. We employed Generalized Estimating Equations (GEE) to investigate the longitudinal association between the use of vitamin D supplements and the subsequent risk of falls. This study was reviewed and approved by the Macquarie University Human Research Ethics Committee (ref: 52019614412614).

Results: A total of 4,520 participants were included, with over two-thirds of residents (67.8%; n=3,063) receiving vitamin D supplements during their stay. The median PDC was 74.8%, signifying that approximately half of the residents received daily vitamin D supplements for three-quarters of their total time spent in the RAC facilities. The proportion of residents achieving optimal adherence was 44.6% (n=1,365). Increasing age, osteoporosis or fracture history, and dementia were associated with a greater likelihood of achieving optimal adherence. After accounting for relevant demographics (e.g., age) and health conditions (e.g., dementia status), no significant relationship was observed between vitamin D supplement usage and fall outcomes: all falls (Incident Rate Ratio [IRR] 1.01; 95% CI 1.00-1.02; P=0.237) and injurious falls (IRR 1.01; 95% CI 1.00-1.02; P=0.091).

Conclusion: Vitamin D supplementation was prevalent in RAC settings; however, it did not demonstrate an association with a reduced risk of falls. This suggests that it may not be an effective standalone intervention for preventing falls in RAC. While clinicians should prioritise ensuring adequate vitamin D intake for residents' musculoskeletal health, other comprehensive measures may be necessary for falls prevention in RAC populations.

Disclosure of Interest: None Declared

Impact of Early detection and Management of colorectal cancer to improve patient outcomes and Reducing the healthcare cost in AL-HADA Armed Forces Hospital -TAIF Region - KSA: (1738) Neda MAZEED Althkafai

ISQUA2024-ABS-1738

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Introduction: World Health Organization reported colorectal cancer is the third most common cancer worldwide, accounting for approximately 10% of all cancer cases and is the second leading cause of cancer-related deaths worldwide and Colon cancer is the second leading cause of cancer-related deaths worldwide. In 2020, more than 1.9 million new cases of colorectal cancer and more than 930 000 deaths due to colorectal cancer were estimated to have occurred worldwide.

Many people will not have symptoms in the early stages of the disease, and colorectal cancer is often diagnosed at advanced stages when treatment options are limited.

Additionally, given the predominance of colorectal cancer compared with other cancers in Saudi Arabia, Colorectal cancer is the most common cancer among Saudi men and the third commonest among Saudi women also is a significant public health concern worldwide. Early detection through effective screening tools plays a vital role in reducing mortality rate and improving our customers' outcome.

Methods: The methodology is the Plan-Do-Check-Act cycle with best evidence-based practices specifically applied to enhance and streamline the repetitive workflow involved in the early detection and management of colorectal cancer in AL-HADA Armed Forces Hospital by focusing on Collaboration among the primary health care in community to enhancing patient awareness and facilitating access to Increase screening cases, enhanced the compliance of our Gastroenterology healthcare providers with the national guidelines for colorectal cancer screening in Saudi Arabia with strength of recommendation and quality of evidence. Additionally streamlining the patient journey in the endoscopy department, ensuring early appointments within two weeks and improving patient prioritization and integration immediately with the general surgery department to management precancerous stage. This was done parallel to motivation our GIT consultant to comply with international measurement of Adenoma Detection Rate (ADR) aiming to improve the overall accessibility, and comprehensive care for early detection and management of pre-cancerous lesions.

Results: Our results demonstrate a significant improvement in primary outcome of the percentage of early-stage cases with detected lesions has shown a substantial increase, rising from 4% prior to the intervention to 17%. Moreover, the secondary outcomes of the percentage of referred patients to the general surgery department has increase, escalating from 3.4% before the intervention to 11% after its implementation.

Finally, Financial implication was crucial in evaluation the success of our intervention with highly cost saving about SR 741,298.38 till the end of October 2023.

Conclusion: Improving the early detection and management of colorectal cancer has markedly improved the overall of the positive case that were detection in early stage and management with general surgery that impact on reduce cost in health care system and patient outcome.

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Disclosure of Interest: None Declared

Analysis of Factors Causing Low Doctor Verification Compliance based on Hospital Accreditation Standard: (3459) Nungky Nurkasih Kendrastuti

ISQUA2024-ABS-3459

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Introduction: This study aimed to analyze the factors associated with low of verification by doctors at hospital. According the hospital accreditation standard, the doctor responsible for the patient carried out verification to ensure that all health actions carried out on the patient by other health workers are known to the doctor responsible for the patient. The verification process is a process where a responsible doctor signs at the side of the care professional's writing on the Integrated Patient Progress Record form. Initial studies show that the level of verification compliance by the doctor in charge of the patient was quite low. The average level of compliance with filling out doctor's verification in medical records was 9.26% (0-60%).

Methods: This research method used a quantitative analytical approach with the research population consisting of doctors and inpatient medical record documents. A total of 31 doctors took part in this research. This research was carried out in November 2022 – February 2023 at RSUP dr. Sitatala Tangerang Indonesia. Relationship testing was carried out using the Chi-Square test with $p > 0.05$. The variables age, length of service, gender and doctor's knowledge were tested to see whether they had a relationship with verification compliance

Results: The results of the study showed that there was no relationship between the age factor ($p = 0.922$), the length of work factor ($p = 1.101$), and the gender factor ($p = 0.360$) on the percentage of doctor verification compliance (95% CI, $p < 0.05$). However, there is a significant relationship between the knowledge factor ($p = 0,015$) and the percentage of compliance with doctor verification

Conclusion: Conclusion:

There is no significant relationship between age, length of work, and gender on the low percentage of doctor verification compliance. But, there is a significant relationship between the knowledge factor and the percentage of doctor verification compliance

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Disclosure of Interest: None Declared

Improving the quality of hospital care for mothers and children in Kyrgyzstan: (2884) Nurshaim Tilenbaeva

ISQUA2024-ABS-2884

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Introduction: Maternal, newborn and child mortality are still unnecessarily high in the Kyrgyz Republic. Despite certain progress over the past decades, mortality rates are still very high compared to the average in the WHO European Region. Suboptimal quality of care largely results to poor health outcomes. National quality improvement approaches are often person-focused concentrating on

supposed 'correction of mistakes and errors' by individual care providers. The hospital quality improvement project for mother, newborn and child health in 11 hospitals of the Kyrgyz Republic was implemented from 2021 to 2023. Targeted facilities were primary, secondary and tertiary level hospitals across the country. The study was conducted to assess the progress of quality of care for mothers, newborn and children after implementation of the complex improvement process for two years.

Methods: The quality of care in 11 hospitals was assessed in October 2021, using adapted WHO assessment tools on hospital care for children (2015) and hospital care for mothers and newborn babies (2014). The tools evaluated availability and appropriate use of resources, case management, and key hospital policies. Assessment teams included obstetricians, midwives, neonatologists, paediatricians and nurses who were prior trained on assessment tools, Effective perinatal care and Pocket book of hospital care for children. The baseline assessment was followed by a complex improvement process for two years including updating clinical guidelines, selected training sessions in technical areas and quality improvement methods, supportive supervision and semi-annual collaborative improvement meetings between hospitals. Core technical training sessions focused on on-job training on Effective perinatal care and Pocket book of hospital care for children. Moreover, five rounds of supportive supervision to pilot hospitals by National and peer supervisors, four semi-annual quality improvement workshops, including for hospital quality committees, were conducted. Hospitals have been developing their quality improvement plans based on the baseline assessment results which were updated after each supportive supervision and semi-annual quality improvement workshops.

Results: Most hospitals showed considerable improvement in many case management indicators; however, the standard of care achieved after two years of interventions was largely still not according to international standards in most cases. From little to no changes were observed in hospital support services as well as policies and organization of services. Hospitals with frequent change in leadership and less support for the process showed generally less improvement.

Conclusion: Quality improvement emerges from the interactions of all functions of the health system. Well-trained health care workers are enabled to provide quality of care when they are well-remunerated and have access to well-equipped health infrastructure with required diagnostic tests, medicines, devices and technologies. Support and leadership from hospital management encourages the quality of care. Quality improvement in a setting with a 'person-focused approach' to quality is challenging. Changes take time and the quality improvement process will need to be continued. This requires deliberate efforts and continuity. Improving maternal, newborn and child health requires the health-systems lenses where efforts are made to address challenges in all of its functions.

Disclosure of Interest: None Declared

**Addressing patient flow issues reducing risks to patient safety and improving the quality of care:
(1879) Pieter Jan Van Dam**

ISQUA2024-ABS-1879

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Introduction: Emergency Department (ED) crowding, bed access block, and increased length of stay, pose substantial risks to patient safety. The risk of inpatient mortality for patients admitted via the ED during crowding periods can be up to 34% higher compared to those admitted during non-crowded periods. Poor patient flow also impacts hospitals more broadly, in the form of decreased quality of inpatient care and reduced financial performance. Several of these issues are present in a tertiary care centre in Tasmania, Australia, potentially causing sub-optimal patient and organisational outcomes. The current study was conducted with a view to understanding the root causes of these contextual issues, and also to explore and understand the factors that influence patient flow management in general. With such information, the authors could develop solutions aimed at addressing these issues.

Methods: A pragmatic qualitative approach was employed, whereby in-depth consultations were conducted with 13 clinicians whose positions in the hospital heavily involved the maintenance of patient flow, to determine the most valuable key factors involved in the management of patient flow. The data was analysed using Attride – Stirling's thematic networks tool. In addition, tag- a-longs were carried out to examine and measure patient flow process.

Results: Four global themes were developed: Managing Patient Flow – multiple paper-based lists and software programmes were used to make decisions regarding the most appropriate bed for patients. The wide variety of conflicting information led to confusion. Communicating for Decisions - admission processes whereby the same patient in the ED is assessed by three different medical teams led to lengthy delays. Tools as Enablers and Barriers – there were instances where staff members did not document the correct information in the various systems and there was also evidence that staff members were not aware of the capabilities of these systems, which caused delays and confusion. Increasing Complexity – participants noted that efforts to maintain patient flow were hampered by factors such as inappropriate patient stays, high demand for beds, and a workforce not agile enough to care for a wide variety of patients. Participants were asked what would help them to manage patient flow better and a predictive tool was suggested.

Conclusion: Based on the results several potential solutions have been identified and are currently addressed. An overarching tool (software) incorporating all information required to aid patient flow decisions was regarded as a priority. This tool includes prediction of how many admissions the hospital can expect every day, based on statistical modelling. It is anticipated that this will lead to more sophisticated resource management. Linking forecasts of arrivals with upstream (ambulance call-outs) and downstream (length of stay) analytics could lead to more personcentred decision-making and increase patient safety.

Disclosure of Interest: None Declared

The burden of potential drug-drug interactions in a large tertiary care teaching hospital in rural India and suggested interventions: (2417) Pratheesh Ravindran

ISQUA2024-ABS-2417

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Introduction: Drug-drug interactions (DDIs) are a significant contributor to preventable adverse drug events (ADEs), and may cause severe harm(1,2). They also lead to avoidable hospital admissions and additional expenditure. Most previous studies have focused on the incidence of potential DDIs (pDDIs) in cardiac and internal medicine wards. This study was undertaken at a 1200 bedded multispecialty teaching hospital in rural India, across all departments, to:

1. Estimate the burden of pDDIs and identify the predictors
2. Formulate interventions to reduce the same

Methods: In this retrospective study, 724 cases were randomly selected from all department admissions during July-October 2023 at Mahatma Gandhi Medical College and Research Institute, Pondicherry. The oral drugs were checked for pDDIs using the Medscape drug-drug interaction checker. The interactions were classified into "Contraindicated", "Serious", "Monitor closely" and "Minor". Pearson Chi Square test was used to check association between patient characteristics and pDDIs, and logistic regression was used to estimate the Odds Ratio. The results were analysed and appropriate interventions were formulated. There were no ethical considerations except that the patients who had been discharged on drugs with potential of serious reaction, were called back to the hospital and the medications were changed/stopped.

Results: A total of 724 prescriptions were evaluated. There were 407 males and 317 females. In the study population, 387 patients belonged to surgical departments and 337 patients belonged to medical departments. pDDIs occurred in 133(18.4%) patients. Two hundred and five (28.3%) patients were on eight or more drugs. The number of pDDIs per patient ranged from 1 to 11. Two patients were on a pair of drugs which were in the "Contraindicated" category, and 19 patients were on drugs with potential of "Serious" reaction. The number of potential "Serious" reactions per patient ranged from 1 to 4. One hundred and sixteen (16%) patients had potential drug interactions, which required close monitoring. Thirty four (4.7%) patients had potential minor drug interactions. No adverse drug reaction had been reported for any of these patients during their hospital stay. The contraindicated drugs had been stopped for both patients at discharge. Four out of the 19 patients with potential serious drug interactions had been discharged on at least one pair of interacting drugs.

Higher Age (p 0.001), admission in a medical specialty (p 0.033), and number of prescribed drugs (p 0.001) were associated with pDDIs based on Pearson's Chi Square test results. Binary logistic regression analysis was performed to assess Odds ratio for developing pDDIs for selected independent variables. As the age of the patient increased, they were more likely to develop pDDIs (OR 1.02), and it was significant (p=0.001). Female gender afforded protection from pDDIs (OR 0.86) as compared to male patients but the difference was statistically insignificant. Higher number of prescribed drugs was also significantly associated with pDDIs (OR 3.5, p 0.001).

Interventions: The four patients who had been discharged on drugs with potential of serious reaction were called back and the drugs were stopped/changed. The two Clinical Pharmacists of the hospital presented the data to individual departments, and doctors/nurses were educated about pDDIs. The list of contraindicated and serious drug interactions were displayed in all wards. Based on the results of this study and literature, the clinical pharmacists started focusing on patients aged 50 years and above, with multiple co-morbidities and who had been prescribed more than 5 drugs; to ensure higher pickup rate of serious category pDDIs for timely intervention. A repeat audit is planned after 3 months of implementation of the interventions.

Conclusion: There is a high incidence of pDDIs at our hospital which may in turn lead to serious side effects.

A program spearheaded by Clinical Pharmacists, which includes medication safety education intervention for doctors and nurses, highlighting the common drug interactions, and a screening tool for patients based on risk factors for pDDIs, may help reduce the possible complications.

It is not feasible to have enough Clinical pharmacists to evaluate all prescriptions daily in a hospital. In such a scenario, a computerised physician order entry (CPOE) for electronic prescribing, with Clinical decision support system (CDSS) and alert system, would be the gold standard to recognize pDDIs. However, such technologies should be affordable for developing countries, and also address associated alert fatigue.

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Disclosure of Interest: None Declared

Lunchtime

Lightning Talks

The effect of Joint Commission International accreditation on patient safety culture and outcomes: (2154) SIDIKA KAYA

ISQUA2024-ABS-2154

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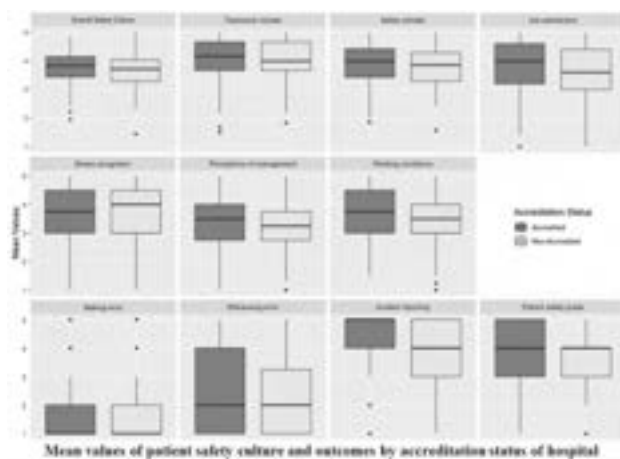
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Introduction: Although accreditation is believed to have a positive impact on quality and safety in healthcare, there is limited literature about the effect of accreditation on patient safety culture and outcomes in Türkiye. The objective of this study is to determine the effects of Joint Commission International (JCI) accreditation on patient safety culture and 4 outcomes (self-reported errors, witnessing errors, incident reporting, and patient safety grade).

Methods: The data were collected using the Turkish version of the Safety Attitudes Questionnaire (SAQ)¹, which consists of 6 dimensions (teamwork climate, safety climate, job satisfaction, stress recognition, perceptions of management, and working conditions). Of 1679 personnel working in three accredited and three non-accredited hospitals in Ankara, 860 were randomly selected. The data were analyzed using binary logistic regression analyses. The responses given to the SAQ and outcome variables were categorized into two groups: agree ("agree slightly" and "agree strongly") and others ("disagree slightly," "disagree strongly" and neutral). All regression models were adjusted for characteristics of respondents (position, age, gender, duration of work in hospital and in clinic) and size of the hospital.

Results: The response rate was 62.7%. The means of overall patient safety culture, job satisfaction and working conditions were higher in accredited hospitals compared to non-accredited hospitals ($p < 0.05$). Among the outcomes, only the incident reporting mean was significantly higher (see Figure). When adjusted for employee characteristics and hospital size, the probability of the overall SAQ score being positive was 1.8 times higher in accredited hospitals compared to non-accredited hospitals. The probability of job satisfaction scores being positive was 1.8 times higher in accredited hospitals and the probability of positive working conditions scores was 1.7 times higher. In accredited hospitals, the probability of agreeing with the statement 'In this clinical area, when an error is made that had the potential to harm patients, this is reported (an incident reporting form is filled)' was 2 times higher ($p < 0.05$).

Image:



Conclusion: JCI accreditation was associated with a more favorable overall patient safety culture, job satisfaction and working conditions in hospitals. Additionally, it was concluded that accreditation increased incident reporting. Therefore, hospital managers who want to improve patient safety culture and incident reporting can benefit from accreditation.

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Disclosure of Interest: None Declared

Prevention of Lower Limb Deep Venous Thromboembolism and Pulmonary Embolism: Early Ambulation 24 Hours Post-Cesarean Section: (2063) Wei An Chen

ISQUA2024-ABS-2063

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Introduction: According to the analysis of the Taiwan Annual Report on Obstetric Accidents, venous thromboembolism (VTE) accounted for 16.1% of all maternal deaths in 2020, making it the fourth leading cause of death related to pregnancy (Ministry of Health and Welfare, 2021). Middleton et al reported a higher risk of VTE in cesarean sections in 2021. Soon after, the Taiwan Society of Obstetrics and Gynecology newly classified prolonged postoperative bed rest in cesarean section patients in 2022 as a general risk for VTE, recommending early ambulation within 24 hours post-surgery. However, delays in ambulation often occur due to factors such as pregnancy-related lower limb swelling, postoperative discomfort and pain, and inconvenience caused by catheterization, leading to an increased risk of VTE. A review of our hospital's practice for cesarean section patients revealed in

February 2023, the average time for the first ambulation post-surgery was 28.6 hours, with an ambulation rate within 24 hours of 17.4%.

Methods: The proposed intervention plan outlines strategies to enhance venous thromboembolism (VTE) prevention in post-cesarean section patients through educational training and evidence-based practices. The educational training component involves continuing education courses for nursing staff to improve their ability to identify and respond to emergencies promptly. Additionally, staff is educated on performing Homan's test and assessing the symmetry of lower limb circumference and dorsalis pedis pulse. The evidence-based obstetric risk prevention measures include searching relevant literature for VTE prevention strategies and introducing intermittent pneumatic compression systems. Obstetricians are informed to revise routine orders to encourage early ambulation, adjust postoperative analgesics based on patient conditions, and teach joint exercises for bedridden patients. For high-risk individuals, the recommendation includes wearing elastic stockings or using elastic bandages, emphasized during shift handovers. Maternal information is addressed through group health education sessions, comprehensive informed consent for intermittent pneumatic compression systems, and nursing guidance on preventing lower limb VTE through exercise in postpartum education handbooks. This multifaceted approach aims to improve early ambulation rates and reduce VTE risks in post-cesarean section patients.

Results: From April 2023 to December 2023, 137 cases of cesarean section were collected after the implementation of the new protocol. We noted a decrease in average time for the first ambulation from 28.6 hours to 17.5 hours and an early ambulation rate increase from 17.6% to 94.9%.

Conclusion: Prioritizing VTE prevention requires educating healthcare personnel on factors and strategies to prevent venous thrombosis, educating patients and families to protect themselves, and encouraging post-cesarean section patients to ambulate early to effectively mitigate the risk of VTE.

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Disclosure of Interest: None Declared

Assessment of Antimicrobial Stewardship Program Implementation in Hermina Hospital Group, Indonesia: A Survey-Based Study: (3199) Wenny Retno SarieLestari

ISQUA2024-ABS-3199

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Introduction: In May 2015, the World Health Assembly endorsed a global action plan on antimicrobial resistance, delineating five key objectives:

Enhancing awareness and comprehension of antimicrobial resistance through effective communication, education, and training.

Strengthening the knowledge and evidence base via surveillance and research.

Decreasing infection incidence through effective sanitation, hygiene, and infection prevention measures.

Optimizing the use of antimicrobial medicines in both human and animal health.

Developing the economic case for sustainable investment, considering the needs of all nations, and increasing investment in new medicines, diagnostic tools, vaccines, and other interventions.

In Indonesia, Antimicrobial Stewardship (AMS) was initiated following its launch by the World Health Organization (WHO). However, the implementation of AMS at the hospital level has not been thoroughly systematized, and national reporting has not been consistently conducted. Within the Hermina Hospital Group, AMS has been extensively implemented since 2019, albeit with challenges in standardizing reporting across individual hospitals and with broader corporate implications. Although AMS has been integrated into a nationally accredited program since 2019, operational activities have not been fully incorporated into routine practice. Antimicrobial vigilance commenced in 2021, coinciding with an increase in antibiotic usage as part of Covid-19 therapeutic protocols at that time.

Methods: We surveyed hospitals under the Hermina Group during 2023. We used WHO Health-Care Facility Assessment Tools for the questionnaire. The tool has 28 items within six domains including leadership commitment, accountability and responsibility, AMS actions, education and training, monitoring and surveillance, and reporting feedback within the health-care facility. Hospitals were asked to select responses for each item with “No”, “No, but a priority”, “Planned but not started”, “Partially implemented”, or “Fully implemented” options. Data were analyzed descriptively and presented in graphic (bar and spider web diagram).

Results: Most of the hospitals involved in the study had fully integrated the Antimicrobial Stewardship Program (AMS) as per the questionnaire. All hospitals had implemented six items of the AMS, which included the hospital management/leadership prioritizing AMS, establishing a mechanism for regular monitoring and measurement of AMS activities, appointing a person in charge of AMS, maintaining a formulary/list of approved antibiotics based on the national formulary, and consistently monitoring the quantity and types of antibiotic use (purchased/prescribed/distributed). The remaining 22 items showed variability across hospitals. Regarding the development, collection, and regular updating of

antibiograms, 53.3% of hospitals had fully implemented this aspect, 40% had partially implemented it, and the remaining items were not given priority.

Establishment of Antimicrobial Resistance Prevention Committee of Medikaloka Hermina were in June 2022. Hermina Group's Antibiotic Utilization Guide refers to culture data from Hermina Jatinegara Hospital (Hermina group's reference center for microbiological examinations) published in April 2023, last revision in Sept 2023. The E-Raspro application began to be tested in 24 Hermina hospitals as of September 2023 and coordinated supervision and control of interprofessional collaboration carried out, becoming part of the performance of medical support managers. With systematization in the management and use of E-Raspro, monitoring of PPRA supervision and control as of January 2023, which has never been achieved finally December 2023 achieved all PPRA targets. That is, the use of anti-microba reserve 74.82, watch 22.62 and reserve only 2.72% this is in accordance with WHO standards.

Conclusion: The findings revealed that while the majority of hospitals had fully integrated the AMS, there were variations in the implementation of specific AMS components. The study highlights the need for further systematization and standardization of AMS activities, especially in areas such as the development of antibiograms and regular updating of antibiotic guidelines. The results provide valuable insights for the ongoing improvement of antimicrobial resistance management in the Indonesian healthcare setting.

Disclosure of Interest: None Declared

The role of KARS surveyors in accelerating the reduction of maternal mortality in Indonesia: (2888) **Yessy Rachmawati**

ISQUA2024-ABS-2888

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Introduction: Comprehensive MPDSR is instrumental in generating high-quality information on the primary causes of maternal and perinatal deaths, as well as the significant contributing factors to these fatalities. However, the systematic implementation and monitoring of responses, as well as the analysis of their effectiveness, are often lacking in MPDSR. Countries, such as Indonesia, advance in establishing a comprehensive approach to support the quality of care for maternal, newborn, and child health, new areas of inquiry pertaining to the linkages between MPDSR and quality of care implementation will arise. There are initial questions to consider and test, particularly in contexts where both quality of care and MPDSR committees/teams are operational. This includes identifying best practices for enhancing communication and harmonizing processes. Furthermore, it is essential to explore whether hospital accreditation, particularly through the surveyors of the Hospital Accreditation Commission / KARS, can effectively implement and monitor MPDSR activities at the hospital, sub-national, and national levels. The Indonesian government has mandated a national regulation that requires all hospitals to report maternal and perinatal deaths and conduct AMPSR, with these activities being included as an element in hospital accreditation by 2022. In the implementation of this regulation,

hospital accreditation surveyors must be vigilant in observing its execution, considering that not all MPDSR activities are documented as elements in assessing hospital accreditation standards.

Methods: This study observed the activities of KARS surveyors in mapping the implementation of MPDSR applications in accredited hospitals as compared to data in national MPDSR digital applications. The researchers modified the facility-level monitoring indicators of MPDSR implementation from the WHO Maternal and Perinatal Death Surveillance and Response: Materials to Support Implementation. Responses were gathered based on information provided by KARS surveyors from hospitals in various regions of Indonesia.

Results: Most surveyors followed the study were female (53,3%) and have served as surveyors more than five years (80%). The most referred were Class C hospitals (66,7%). Achievement of MPDSR indicators were varied across hospitals. A maximum of two weeks medical audit after death were partially implemented among 60% of hospitals referred. More than half of hospitals (53,3%) partially conducted clinical audit within a maximum of three months after a case fatality. Maternal perinatal death meeting were followed by QI committee only among 46,7% hospitals.

Conclusion: The detailed mapping of MPDSR activities carried out by KARS surveyors can serve as a comparison and supplement to data for sub-national reporting at the hospital and regional levels. This will enhance the knowledge and skills of surveyors in evaluating the quality of maternal services, while also providing more detailed insight to improve the quality of maternal services and fulfil the elements of national program assessment standards in hospital accreditation, thus contributing to the success of the WHO program. The challenges encountered in the implementation of this research underscore the significance of understanding the national health system in accordance with the WHO action plan in every hospital accreditation survey implementation.

Disclosure of Interest: None Declared

An attempt to make 5S-KAIZEN a managerial foundation for patient safety at government hospitals in Uganda; Needs of parallel application of IHI-GTT and Tracer Method to accelerate the improvement: (1118) Yujiro Handa

ISQUA2024-ABS-1118

Y. Handa ^{1 2,*} on behalf of Japan International Cooperation Agency (JICA) Project on Patient Safety Establishment through 5S-KAIZEN-TQM, E. Ouma ³, J. H. Obonyo ³, J. Atepo ³, N. Take ⁴, S. Takahashi ⁵, E. Onosaka ⁶, B. Ntegeka ³, H. Tasei ⁶ and Japan International Cooperation Agency (JICA) Project on Patient Safety Establishment through 5S-KAIZEN-TQM in collaboration with Ugandan Ministry of Health

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Introduction: Patient Safety is an important target in developing countries in Africa. Timely investments to government hospitals are not always easy. *Project on Patient Safety Establishment*

through 5S-KAIZEN-TQM (the Project) has been in operation since 2021 with collaboration among the Ugandan Ministry of Health, 18 public Referral Hospitals (RFs) and the Japan International Cooperation Agency. As basic managerial tools, 5S Principles and KAIZEN are used at the targeted hospitals to improve the working environment and processes. The 18 RFs are tackling patient safety using their experiences in 5S-KAIZEN. In this presentation, the authors discuss the effectiveness of this approach. A question is whether the medical teams develop pro-safety mindsets using their experiences in 5S-KAIZEN.

Methods: Assessment of the managerial improvement in the selected RFs was conducted using (1) the 5S Achievement Scale (5AS), and (2) the review of inpatient medical records (MRs) by the IHI-Global Trigger Test (GTT) in 2022. The 5AS is the assessment tool which was a structured tool by the Project. Two-day group training for work unit leaders followed by quarterly technical supervision to the Quality/Safety Management Offices of the hospitals were conducted prior to the assessment. For GTT, IHI's original format was utilized on the ca. 300 inpatients' medical records. The detected triggers and the adverse events (AEs) were recorded by the calibrated hospital-based assessment teams.

Results: The result in 5AS ranged from 32 to 90 (100; full marks). The two RFs, which marked over 90 were selected for GTT. AEs recorded at RF-K and RF-M were 11.6 and 11.5 per 100 admissions respectively. On the severity of the AEs, 54.6% (RF-K) and 56.2%(RF-M) were found to be under category E (AE contributed to temporary harm and required intervention) out of 5 categories of AEs (IHI-GTT). Regarding category I (AE contributed to patient death), 3% of 33 AEs out of 285 cases (RF-K) and 18.1% of 31AEs out of 286 cases (RF-M) were noted respectively. Medical record (MR) documentation at the RF-K and RF-M was not perfect indicated by the fact that the discharge summaries were completed only in 67.4 % and 66.7 % (Medicine), 59.2% and 76.8% (General Surgery), 46.7% and 22.7% (Obstetrics) respectively. The data of AEs must have appeared lower than the reality.

Conclusion: Achievement in working environment improvement using 5S-KAIZEN fluctuated among the targeted 18 hospitals in one year. The attitude seeking the betterment of the routine care processes could not be well formulated among the medical staff only by the 5S-KAIZEN even at the selected two hospitals which achieved high marks over 90. The completeness of MR documentation should be an indicator of the additional need for intervention. The rate of AEs under category I (AE-contributed patient death) should be analyzed on the root causes by the medical team to implement the countermeasures. In addition to IHI-GTT, a proactive measure, such as the tracer method, to the routine care process should be added as an intervention to the medical teams. The combined interventions by the IHI-GTT, tracer method and 5S-KAIZEN could be a triad to encourage the hospital staff in government hospitals in developing countries such as Uganda.

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Disclosure of Interest: None Declared

Effectiveness of PRIDE program in the restraint Patient care: (1676) YUMEI LEE

ISQUA2024-ABS-1676

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Introduction: The average restraint rate for clinical patients is 1.18%, higher than the national medical center average rate of 0.6%. However, clinical care nurses currently lack evidence-based restraint strategies. This quality project aims to develop a program combining different strategies and to evaluate the effectiveness of restrain patient care

Methods: Using a PRIDE program is combined with the nursing practices , healthcare team collaboration and caregiver's participation. The PRIDE program includes the following five key points: Professional, Responsibility, Innovation, Decision making, Empathy. It's major elements are Professional assessment of restraint necessity, Responsible care teamwork, Innovative restraint tools, Decision-making involving caregivers, and Empathy towards patients' stress and discomfort. Implemented in 28 units of medical and surgical wards and intensive care units and used on 108 patients Following the implementation of the developed restraint strategies, a nine-month audit of the physical restraint rate in clinical care patients was conducted to assess the effectiveness of the strategies.

Results: The innovative design of restraint tools by this project have obtained invention patents in Taiwan and Japan. After completing the education and training of 45 nurses, the restraint accuracy rate in the audit was 92.6%. The post-implementation review indicated that the physical restraint rate has decreased from 1.18% to 0.80%.

Image:



Conclusion: Patient-centered care means that the team joins hands with the patient's family/caregivers to provide empathy and informed consent to the care process when performing treatment and care, and to provide physical comfort and psychological support through integrated care. This is our continuous promotion of friendly restraint motivation. The implementation of innovative restraint strategies can effectively reduce the rate of physical restraint in clinical patients. Therefore, we plan to promote this strategy in our hospitals. Toward the goal of "zero-constraint" care and create the goal of three good things. #Patient/Family Good: Patients can be safe, comfortable and dignified, and their families can feel more at ease #CareTeamGood: Feel the professional significance and value, enhance work identity and sense of accomplishment

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Disclosure of Interest: None Declared

Optimizing Inpatient Care: Implementing an Evidence-Based Hospitalist Program: (2692) Zainab Abdullah Alzaki

ISQUA2024-ABS-2692

Z. A. Alzaki^{1,*} on behalf of Dr. Ali Alsaeed and Dr. Ali Alsaeed

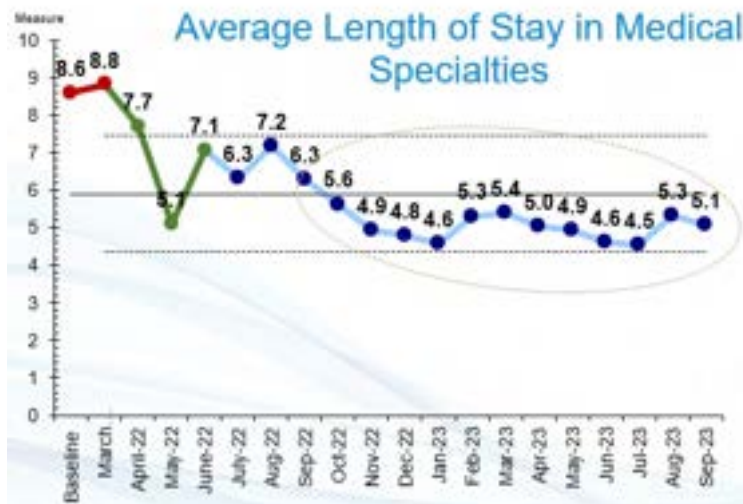
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Introduction: Dammam Medical Complex launched the Hospitalist Program to improve patient care and satisfaction. Key performance indicators identified factors contributing to prolonged average stays, such as ineffective work strategies, poor communication, delayed diagnoses, and difficult transitions between care levels. The program aimed to reduce hospital stays and increase bed availability by optimizing bed utilization through efficient patient management. This improved patient satisfaction and increased the hospital's capacity to accommodate more patients and respond effectively to emergencies. Cost savings and resource utilization were also crucial, as they measured by hospitalization durations and readmission rates, aiming to make more efficient clinical decisions.

Methods: The Hospitalist Program Enhancement project at DMC was developed through a phased implementation strategy, starting with a five-member team in March 2022. This team provided full-day coverage for inpatients, focusing on general internal medicine, infectious disease, pulmonary, hematology, and rheumatology. In October 2022, the team expanded to eight members, covering a maximum of 15 active patients daily. The scope of practice expanded to include all medical subspecialties except infectious disease, allowing for comprehensive care coordination. In May 2023, four hospitalists worked 12-hour shifts seven days a week, ensuring continuous care for patients. The team remained dedicated to managing a maximum of 15 patients per day. In July 2023, the team incorporated infectious disease cases, excluding HIV and TB, into their scope of practice, further enhancing their ability to address various medical conditions. The program design included key performance indicators to measure the program's success.

Results: The project has significantly improved healthcare quality by serving over 60% of inpatients within the organization, demonstrating the hospitalist program's capacity to meet growing demand. The project aimed to reduce the length of stay (LOS) to an average of 5.5 days, resulting in more efficient care delivery and streamlined processes. The project also reduced transfers to the intensive care unit by 50 patients, demonstrating improved management of critical patients and the program's ability to handle complex medical cases. Improving weekend discharge rates was a key focus, ensuring timely and seamless patient transitions. The project addressed the issue of long-stay patients by improving care coordination, transitions, and optimized processes, decreasing long-stay patients. Patient access was enhanced by increasing clinical capacity, maximizing facility and resource utilization, and increasing bed turnover.

Image:



Conclusion: The Hospitalist Program Enhancement project revealed significant improvements in patient care and satisfaction through a hospitalist-based approach. The program focused on comprehensive care coordination, improved communication, and shorter hospital stays, emphasizing the importance of a dedicated hospitalist team in optimizing patient outcomes. The average length of stay (LOS) in medical specialty units was reduced to an average of 5.5 days, demonstrating the program's effectiveness in facilitating efficient care delivery and resource utilization. The number of transfers to the intensive care unit decreased, indicating improved handling of critical patients. The project also improved weekend discharge rates by addressing staffing and resource challenges, ensuring timely and seamless patient transitions. Long-stay patients were reduced, indicating improved efficiency and resource utilization. These findings underscore the potential of a hospitalist-based approach in managing patient flow and optimizing bed availability.

References: Our Hospitalist Program is based on evidence-based best practices and aims to provide high-quality, patient-centered care to improve patient outcomes. We have utilized clinical guidelines, expert input, teamwork, ongoing professional development, and quality improvement initiatives. We benchmarked at JAHA and Houston Methodist healthcare institutions to identify effective strategies, allowing us to develop a comprehensive Hospitalist Policy and Procedure that provides the best possible care to our patients. Additionally, we referenced publications from the Society of Hospital Medicine, the International Journal of General Medicine, and the Journal of Hospital Medicine.

Disclosure of Interest: None Declared

Patient and family engagement in patient safety in the Eastern Mediterranean Region: A scoping review: (3255) Zhaleh Abdi

ISQUA2024-ABS-3255

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Introduction: Patients can play a key role in delivering safe care by becoming actively involved in their health care. Evidence suggests that most patients are willing and able to participate and engage in their safety and their participation has been associated with enhancing patient safety. Engaging patients in promoting safety and reducing adverse events has become an international policy priority. Despite growing research on patient participation in patient safety globally, there is a lack of information on this topic among EMR member states. This study aimed at reviewing the literature for evidence of patients' and families' engagement in patient safety in the Eastern Mediterranean Region (EMR).

Methods: We conducted a scoping review of the literature published in English using PubMed, EMBASE, CINAHL, Scopus, ISI Web of Science, and Global Index Medicus until June 2023 among 22 countries of EMR (Afghanistan, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Occupied Palestinian Territory, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, and Yemen).

Results: A total of 9019 studies were screened, with 22 meeting the inclusion criteria. Our review found few published studies of patient and family engagement in patient safety research in the EMR. Thirteen studies explored the attitudes, perceptions, and/or experiences/ preferences of patients, families, and healthcare providers (HCPs) regarding patient engagement in patient safety. Nine publications reported patient engagement in patient safety activities with different levels of engagement. Three categories of factors were identified that may affect patient involvement: Patient-related (e.g., lack of awareness on their role in preventing harms, unwillingness to challenge HCPs' authority and cultural barriers) HCP-related (e.g., negative attitudes towards patient engagement, poor patient-provider communication and high workload) and healthcare setting-related (e.g., lack of relevant policies and guidelines, lack of training for patients and HCPs, and lack of patient-centered approach).

Conclusion: Despite the international movement to increase patient involvement in safety, there is a dearth of research evidence from the EMR on the acceptability to patients, families, and HCPs as well as the potential impact of such involvement on enhancing safety. The available evidence indicates that patients are willing and able to be involved in patient safety practices. There is a need to understand how patients, families, and caregivers can actively be involved and how they can contribute as knowledgeable partners in patient safety activities. Further evidence is required to understand patients', caregivers', and HCPs' preferences and experiences of the involvement process and whether such involvement translates into improved safety in practice. Future studies should expand our understanding of which strategies work best in different contexts and their impact on patient safety. There is a need, especially for implementation studies showing how to implement the concept in clinical settings given the diversity of the EMR countries.

Disclosure of Interest: None Declared

AN EVALUATION OF ACCREDITATION STANDARDS IN HEALTH SERVICES FROM THE PERSPECTIVE OF INTERNATIONAL ACCREDITATION ORGANIZATIONS: (3534) Ayşe Sibel GÜLTÜRK

ISQUA2024-ABS-3534

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Introduction: Accreditation standards in healthcare inherently require a dynamic working process. Both the working principles of The International Society for Quality in Health Care (ISQua) and the fact that the standards are always open to renewal make it necessary for the standards to be updated, developed and improved over time. In this context, organizations carrying out accreditation activities periodically review their standards and make improvements when necessary. The purpose of this study; To make an evaluation from the perspective of international accreditation organizations regarding the use of accreditation standards in health services. As a result of the research, it is aimed to provide accreditation bodies with a perspective on the use of accreditation standards in health services.

Methods: The study was conducted using the survey method. The survey used within the scope of the study was prepared by the researchers. The survey was sent electronically to approximately 100 different healthcare accreditation organizations that are members of ISQua and provide services in 70 different countries. 14 organizations that are members of ISQua, already have a standard set, and agreed to participate in the research were included in the research. Descriptive statistics (frequency and percentage) were used to evaluate the research data, and Microsoft Excel program was used for descriptive statistics.

Results: Accreditation is mandatory in 71.4% of organizations.

In most of the organizations (35.7%), the number of accredited institutions varies between 11 and 100.

57.1% of the organizations do not have a support mechanism for accredited institutions, and none of them provide financial support. However, in 28.6%, accredited institutions are supported through methods such as continuing education on standards, donor support and coaching training.

Almost all of the organizations (85.7%) provide services such as training and consultancy to institutions implementing accreditation programs. Additionally, in 71.4% of the cases, these services are provided by public or private organizations.

Most organizations (42.9%) have a number of standards sets ranging from 1-5.

35.7% of the standard sets used were not accredited by ISQua due to reasons such as use for a small number of facilities and small market share.

When determining the content of standard sets, areas such as hospitals, oral and dental health services, and dialysis services are mostly taken into account (71.4%). While service status such as public, private, university is not taken into consideration; 21.4% according to the tier system; 24.3% according to the size of the institutions; 28.6% are related to leadership, research activities, etc. The subsection topic is determined by other topics, such as the implementation of the quality management system.

More than half of the institutions (57.1%) do not have accreditation programs specific to clinical service areas such as cardiology, intensive care, operating room, emergency health and sterilization.

35.7% of organizations use a single set of standards for all accreditation programs. 44.4% of organizations do not experience any problems with the use of a single set of standards for all accreditation programs. However, in most organizations (55.6%), problems may be experienced such as exclusion of many standards depending on the type of the field inspected, difficulties in determining standards for a particular field, and difficulties in the use of practitioners.

44.4% of organizations prefer to use different sets of standards for different accreditation programs. While half of the organizations (50%) do not experience any problems with the use of different standards sets; The other half is that creating a new standard set for each health field causes an extra workload (28.6%), repetitions occur in standard sets (28.6%), and the application of revisions made in one set to the other set is time-consuming and delays occur (14.3%), the development of standards is a very long process that is costly and time-consuming (7.1%).

Most organizations (78.6%) do not prefer to use a single set of standards for different accreditation programs.

Nearly half of the organizations (42.9%) have not made any changes in the structure or design of their standards sets since their establishment. More than half of the organizations (57.1%); Taking into account issues such as the need to update standards every 4 years, patient surveys, auditor and practitioner feedback, legislation updates, adding new evidence-based requirements, strengthening standards and clinical governance related to care, reviewing, developing and strengthening the scoring and rewarding system, classification of standards and They have made changes in the structure or design of their standards sets for reasons such as adding guidance notes.

Half of the organizations More than 50,000 (57.1%) plan to make changes to the structure or design of the standards sets they currently use.

Almost all of the organizations (92.9%) provide a guide prepared for the use of institutions and auditors, providing information about the sets they use in their accreditation programs.

While the standard sets of 64.4% of the organizations can be accessed from their web pages, 42.9% can be accessed as a hard copy or through an electronic method such as a phone application. In 14.3% of the organizations, it can be obtained by sending an e-mail or making a payment to the relevant organization.

Access to standards sets is free in 64.3% of organizations.

Conclusion: The use of accreditation standards in health services varies according to international accreditation organizations. There may be various opportunities and difficulties in the use of standards. The perspective put forward by this research may provide useful guidance for accreditation bodies.

Disclosure of Interest: None Declared

Assessing The Implementation of The World Health Organization (WHO) Building Blocks in The Maternal Health System in Indonesia: (1251) Prita Muliarini

ISQUA2024-ABS-1251

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Introduction: Maternal mortality in Indonesia remains a significant concern, and it is crucial to evaluate the effectiveness of the maternal health system in addressing this issue. By focusing on the WHO building blocks, which encompass service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance, this study seeks to understand the strengths and weaknesses of the Indonesian maternal health system. Specifically, the study aims to identify gaps and areas for improvement in order to enhance maternal health services.

Through this assessment, the study seeks to provide insights into the challenges faced by the Indonesian maternal health system and recommend strategies for enhancing its effectiveness. By identifying gaps in the implementation of the WHO building blocks, policymakers, healthcare professionals, and stakeholders can work towards tailored interventions and reforms that address these gaps. The ultimate goal is to improve the quality and accessibility of maternal health services in Indonesia, leading to a reduction in maternal mortality rates.

Methods: The research methodology employed in this study involved observing the Maternal and Child Health Book (MCHB) as a "reflection" to the journey of maternal health. The MCHB was analyzed to determine if it aligns with the key characteristics of well-functioning health service delivery, as outlined by the WHO. Additionally, the study examined the linkages between the different building blocks of the health system in the context of maternal care in hospitals. The national health policies relevant to maternal care were also monitored to understand their influence on service delivery.

Results: The study found several areas that require attention and improvement. Firstly, there is a lack of compliance with maternal death notification reporting, hindering efforts to address maternal mortality. Secondly, access to standardized maternal services is limited due to the diversity of clinical practice guidelines in various health facilities. Thirdly, the referral systems for maternal care have not been adequately established. Fourthly, the distribution of health human resources is uneven, affecting the quality of maternal health services. Lastly, the process of achieving universal health coverage for maternal financing is still ongoing.

To address these challenges, Indonesia is embarking on a comprehensive health transformation initiative that encompasses six core pillars: Primary Service Transformation, Referral Service Transformation, Health Security System Transformation, Health Financing System Transformation, Health HR Transformation, and Health Technology Transformation. The updated hospital accreditation standards, enacted by the Indonesian Ministry of Health, aim to expedite the transformation of the health system. By aligning with the WHO framework for health system performance assessment and focusing on the building blocks, Indonesia can enhance the resilience of its maternal services in the post-pandemic era.

Conclusion: The findings of this study highlight the need for comprehensive reforms in the Indonesian maternal health system. The transformation of the health system, as outlined in the six pillars of Health Transformation, presents an opportunity to address the challenges identified. By aligning with the WHO framework for health system performance assessment and focusing on the building blocks, such as service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance, Indonesia can enhance the resilience of its maternal services in

the post-pandemic era. It is crucial to prioritize policy success indicators, such as appropriate client input and effective access to healthcare. Furthermore, improving the quality of health service delivery, person-centered care, patient safety, and public health literacy are essential for accelerating the decline in maternal mortality rates.

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Disclosure of Interest: None Declared

Gastro-Intestinal Anaesthesia Safety Checklist Audit in improving patient care at a tertiary care cancer centre (CARE): (1323) Reshma Ambulkar

ISQUA2024-ABS-1323

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Introduction: Though a seemingly simple intervention, *checklist* has played a leading role in the most significant successes of the *patient safety* movement. Safety Checklists are increasingly being used as tools to improve care processes and outcomes by reducing patient harm and eliminating medical errors. This safety program was implemented at our tertiary care cancer hospital, as a part of multi-component quality improvement initiatives in patients undergoing major gastro-intestinal (GI) surgeries.

Aim: Implementation of the Checklist and monitoring the compliance with five safety measures would improve patient safety.

Methods: A preoperative safety checklist consisting of five safety measures based on current available best evidence was introduced by our team of GI anaesthetists. We monitored compliance to five safety measures (Ultrasound use during insertion of central venous catheter, VTE prophylaxis (pharmacological and/or TEDs), Timing of LMWH and epidural insertion, Preoperative carbohydrate drink in non-diabetics and Allen's test prior to radial arterial line cannulation)¹⁻⁵. Data was collected at

two timepoints, baseline and five years after implementation of the Safety checklist by our research nurse. Baseline data collection (over one year) was followed up by continuous education of all resident anaesthetists at our hospital regarding the five safety measures. After five years, we reaudited and data which was collected (over one year) and compared to the baseline data. Proportion count was used to summarise the data of safety checklist parameters.

Results: Total 760 patients were included in the analysis in the baseline data in the year 2017 and 720 patients were included in 2022. The compliance to the five safety measures is mentioned in Table 1.

Table 1: Compliance to five safety parameters

Year	USG Guided CVC N (%)	VTE Prophylaxis N (%)	LMWH Epidural N (%)	Preoperative & Carbohydrate Drink N (%)	Allen's Test N (%)
2017	79 (74%)	758 (99.8%)	584 (97%)	586 (78%)	227 (93%)
2022	18 (100%)	715 (99.3%)	464 (100%)	624 (100%)	371 (100%)

Conclusion: The initial results achieved with implementation of the safety checklist in major GI surgeries are encouraging. Strict adherence to safety measures is possible, with regular teaching and awareness of safety measures in improving patient care.

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Disclosure of Interest: None Declared

Reduction and Control of Surgical Site Infections: A multidisciplinary approach to enhance patient safety: (3036) Saadia Pervaiz

ISQUA2024-ABS-3036

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Introduction: Surgical site infections (SSI) are extremely serious post-surgical complications that can lead to extended hospital stays, reinterventions, readmissions, and the possibility of lasting impairment or even death for the patient. Since January 2023, Evercare Hospital Lahore was faced with the challenge of high rates of SSIs which needed urgent intervention. A multidisciplinary team was activated to take effective measures.

The main objective was to identify the root causes of rise in SSIs, determine the common factors, collect detailed information about each case and to reduce the SSI rate with continuous monitoring.

Methods: The project initiated from January 2023 and is an ongoing process uptil now.

PDSA model was used:

Plan:

Following steps were involved for our planning phase:

1. Defining the problem i.e. Rise in SSI rate in the Hospital
2. Formation of a multidisciplinary team with Quality and clinical representatives.
3. Analyzing the existing data for thorough investigation. Determining the frequent surgeries with SSIs, observing the hand hygiene and scrubbing practices of the staff, the type of organisms with each SSI, review of antibiogram, patient risk factors etc.
4. Designing SSI protocols and flyers for staff awareness and implementation.

DO:

1. Frequent team meetings were conducted. Issue was highlighted in the infection control and Quality committee meetings.
2. Meetings with the surgeons were held to discuss the way forward with their consensus.
3. SSI protocols were developed in line with CDC guidelines including detailed information regarding the pre-op, intra-op and post-op instructions.
4. Staff trainings were conducted to create awareness.
5. Strict monitoring of hand hygiene and scrubbing practices.

6. Review of disinfection protocols for high touch surfaces in ICU and OR.
7. Strict traffic control in OR and Surgical ICU was ensured.
8. Deployment of Infection Control Nurse in OR to monitor the Infection Control practices.
9. Patient Education material was handed over to all the post-op patients including instructions regarding proper wound-care.
10. SSI module was developed in HIMS to prompt about any reported SSI for immediate interventions.

Study:

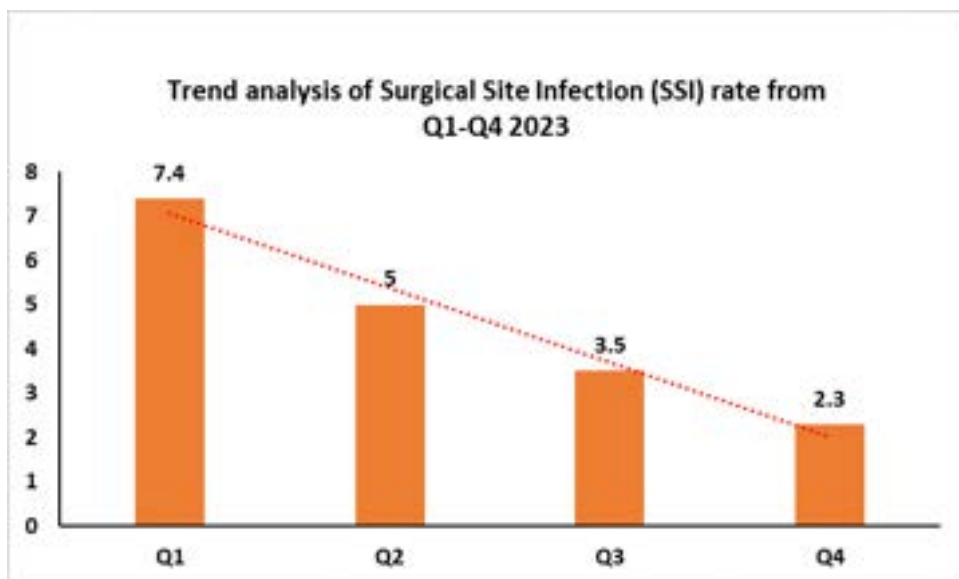
After taking all the measures to control SSIs, the infection control practices and adherence to SSI protocols was checked through random audits. The data was analyzed which was in declining trend and proving the interventions were working.

Act:

All the initiatives taken were continued. Staff was continuously being evaluated for their practices in accordance with the developed SSI protocols. Continuous trainings regarding SSIs are being done. SSI reporting has been made more efficient with the development of SSI module in HIMS. The measures taken are part of an ongoing process and is not limited to a one-time activity.

Results: Declining trend in the rate of SSIs was observed based on our quarterly trend analysis for 2023. In the month of October, there were no SSIs reported.

Image:



Conclusion: This project produced significant results due to the unparalleled efforts and commitment of the entire team. Hand hygiene and scrubbing practices are being done as per the standardized procedures and in case any SSI is reported, thorough investigation is done to prevent future SSIs.

Disclosure of Interest: None Declared

Engaging and encouraging staff for incident reporting: Leading towards improved patient and workplace safety: (3033) Saadia Pervaiz

ISQUA2024-ABS-3033

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Introduction: Effective and transparent incident reporting is crucial in identifying gaps and prevention of future errors that can result in patient and employee harm.

Evercare Hospital Lahore had manual incident reporting system since its inception in 2019. Online mode of incident reporting was introduced in mid Sep-2022.

The problems identified were:

1. Incidents were not being reported due to lack of staff awareness, fear of consequences and a hassle to fill out the manual forms.
2. Risk of confidentiality breach initially since the forms were manually transported by the staff or porter.
3. Chances of sensitive information being misplaced was higher.

The main objective was to address the issues of underreporting, gain staff's trust about incident reporting and to take immediate actions to streamline the process.

Methods: PDSA:

Plan:

The problems with the existing reporting mechanism were identified. Following steps were involved in plan phase:

1. Assessment of staff knowledge through a baseline survey.
2. Development of online incident management portal.
3. Designing incident reporting flyers in English and Urdu languages.
4. Formation of Incident management committee to review all the incidents, their investigation and closure status and to propose action plans.

Do:

1. Online incident management portal was launched.
2. Weekly email circulation containing the awareness flyer. Flyers were also placed on all workstations.
3. Activation of incident management committee on monthly basis.

Study:

With the launch of online portal, there was an extremely low number of incidents reported initially. Through the frequency analysis and random staff interviews, it was identified that still there are a lot of employees who are unaware about incident reporting especially the new staff as the numbers improved to some extent but still seemed to be under reported.

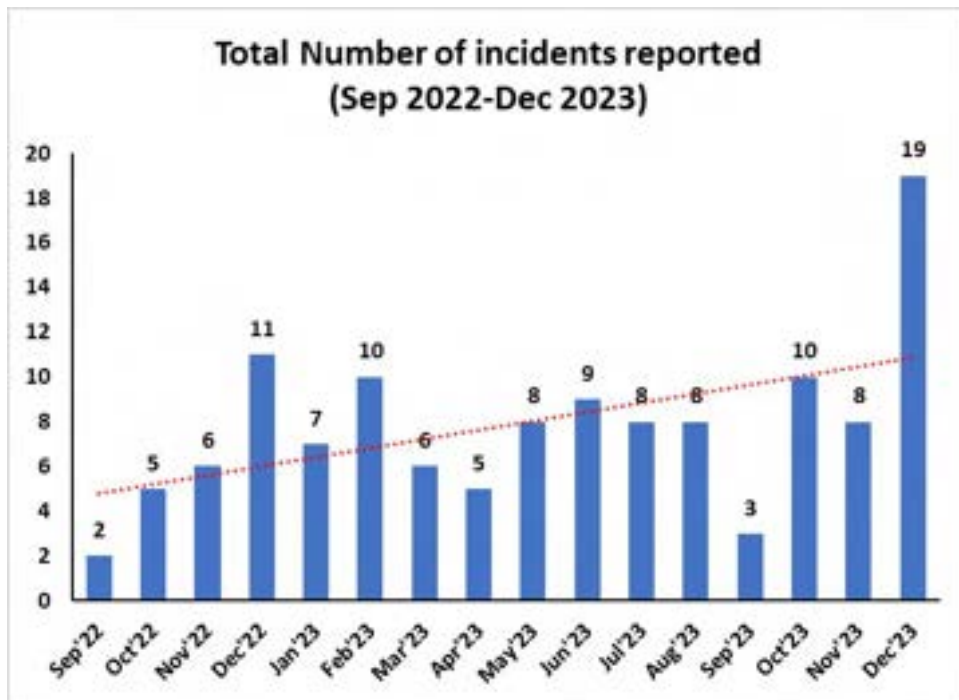
Act:

Formalized staff trainings were needed. The Area leads were also advised to continue training the staff on the ground.

1. Daily staff briefing of incident reporting was done.
2. Formal trainings were conducted more frequently.
3. Flyer content was revised to include more information on type of incidents.
4. Clear communication about the importance of reporting incidents in patient safety, defining near-miss, adverse events and Sentinel events, with the message that this whole process is not to name or blame anyone, rather is for improved patient and workplace safety practices.
5. Automation of Incident management system underway through a module in HIMMS.

Results: Significant improvement in the number of reported incidents was observed showing a clear rise in the number of incidents reported not because there were more incidents happening but because the staff was aware of the incident reporting mechanism and its importance to reduce errors and ensure patient and workplace safety. The highest number of incidents were reported in December with contribution from all areas of the hospital.

Image:



Conclusion: Our project highlights the importance of incident reporting and the staff's understanding of how reporting can lead to prevention of serious safety events from occurring in future. It is clearly indicated that the interventions and efforts to encourage staff proved to be fruitful and hence the number of reported incidents increased significantly.

Disclosure of Interest: None Declared

Language Services for Limited English Proficient Patient Quality and Safety - Dashboard and Data Driven Process Improvement: (3477) Samuel Verkhovsky

ISQUA2024-ABS-3477

S. Verkhovsky^{1,*}. ¹Quality, Safety and The Value Institute, Dartmouth Health, Lebanon, United States

Introduction: Professional Interpreter Services are critical to ensuring patients with Limited English Proficiency (LEP) receive safe and effective care in settings and geographies where English is the predodominant language. Without professional interpreters, LEP patients encounter numerous barriers in accessing healthcare and experience higher risk in healthcare outcomes. Without documentation and measurement of LEP patient encounters and interpreter utilization, improvement efforts are challenged.

Methods: We implemented changes in the way that we identify patients primary language needs from simply asking whether an interpreter is needed to asking which language they prefer to discuss their health information in. We implemented electronic medical record documentation of interpreter utilization and we started using a dashboard to track encounters where LEP patients are seen and how interpreter services are utilized, whether in person, video or telephonic.

Results: Early results indicate that we have an improved grasp of understanding the volume, rate and distribution of instances where and when Limited English Proficient patients are seen. We have started to build a data infrastructure which allows us to monitor and track whether interpreter services are used, and their modality.

This work allows us to stratify health outcomes by LEP status. We have found statistically significant differences in important primary care metrics between LEP patients and English speaking patients.

Conclusion: This data driven work allows us to target professional language services in areas where they are needed. We are able to see where LEP patients are seen, understand their language barriers and intervene with needed services. Published literature has shown that Limited English Proficiency is an independent driver of health disparities. There are numerous care associated outcomes that LEP patients are at an increased risk of suffering. By understanding these risks and measuring where patients are seen, we can target needed services to make sure that they are able to communicate with their care providers using qualified medical interpreters.

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Disclosure of Interest: None Declared

Evaluation of the Use of Quality Improvement Tools by Quality Managers of Hospitals in Turkey: (2973) Şenol DEMİRCİ

ISQUA2024-ABS-2973

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Introduction: Healthcare organizations use various techniques, methods and tools while working on quality and quality improvement. These tools are frequently used to identify and assess problems, address errors and increased costs, change practices, generate/develop new ideas, obtain data,

visualize problems or solutions, make decisions and conduct analyses. It is known that there are many quality improvement tools in health services. This study aims to investigate the frequency and reasons for the use of quality improvement tools by quality managers of hospitals.

Methods: This study is descriptive and cross-sectional. The population of the study consisted of 1329 quality managers of group A, B, C and D hospitals in Turkey. No sample selection was made in the study and it was tried to reach the quality managers of the hospitals in the universe. A total of 248 hospital quality managers who volunteered and willing to participate in the study and answered all questions completely were included in the study.

In the study, quality managers were asked how often and for what purpose they use the identified quality improvement tools. The answer options related to frequency of use were as follows: I use them frequently, sometimes, rarely, I know but I never use them and I don't know. The answer options for the reasons for use are identifying the problem, developing/generating new ideas, obtaining data, visualizing the problem/solution/process and making decisions.

Descriptive statistics (frequency and percentage) were used to evaluate the study data. Microsoft Excel program was used for descriptive statistics.

Results: When the individual characteristics of the participants were examined, it was found that 81.5% of the participants were female, 76.2% were aged between 31 and 50, 64.1% had a bachelor's degree, 52% had 15 years or more of professional experience, 45.2% had 3 to 10 years of experience in quality, and 66.1% worked in a public hospital.

When the frequency of use of quality improvement tools was analyzed, it was found that the rate of those who selected the answer option "I use it frequently" was 54.0% for Brainstorming, 37.1% for the Five Why's Analysis, 32.3% for PDCA Cycle, 28.2% for Cause and Effect Diagram, 23.4% for Failure Mode and Effects Analysis, 23.0% for Control Charts, 21.0% for Flow Diagram, 16% for House of Quality, 14.5% for Tracer Method, 12.9% for Histogram, 10.9% for Process Mapping, 9.7% for Tree Diagram, 9.3% for Pareto Diagram, 8.1% for Spaghetti Diagram, 7.3% for Scatter Diagram, 7.3% for Mapping the Last Ten Patients, 5% for Interrelationship Diagram, 5.2% for Six Thinking Hats and 4.8% for Swiss Cheese Model. The most common purposes of using these tools were to identify the problem, develop/generate new ideas and visualize the problem/solution/process.

Conclusion: Through the use of quality improvement tools, the underlying causes of the problem or problem in the health institution can be better understood, an idea can be gained on how to make the best improvement and an effective strategy can be developed for the completion of the activities.

Disclosure of Interest: None Declared

What role does compassion have on quality care ratings? A regression analysis and validation of the Sinclair Compassion Questionnaire: (1066) Shane Sinclair

ISQUA2024-ABS-1066

Introduction: Despite being prominently featured in medical codes of ethics, best practice guidelines, organizational visions statements, and anecdotal patient reports, the impact of compassion on quality care ratings has not been rigorously studied. Recently, a valid and reliable patient reported compassion measure-the Sinclair Compassion Questionnaire (SCQ)- was developed for Long Term Care, Hospice, and Acute Care settings, providing the opportunity to investigate the impact of compassion in diverse healthcare settings.

In the current study, we verified the validity of the SCQ in the emergency department (ED), primary care (PC), and residential care (RC) settings with confirmatory factor Analyses (CFA). A subsequent regression analyses also confirmed that patients' experiences of compassion were a significant predictor of their overall quality care ratings, and varied based on certain sociodemographic factors, particularly amongst emergency department patients.

Methods: We employed a cross-sectional survey design; derived from 3 different patient populations. Specifically, data were collected from patients in fourteen urban and regional hospital emergency departments (N = 4501), primary care patients (N = 2291), and long term care residents (N = 2683). Confirmatory factor analyses (CFA) were conducted to validate the factor structure of the compassion measure across diverse healthcare contexts. Specifically, factor loadings, internal consistency reliability, and indicators of global fit are reported.

Hierarchical stepwise linear multiple regression was used to assess the unique variance of compassion on quality care ratings during patients' more recent emergency department visit, beyond demographics and measures of patient information (e.g., patient perceptions of health), and patient experience (e.g., physician communication).

One-Way Analysis of Variance (ANOVA) was used to assess whether patients' mean compassion scores differed based on demographic factors.

This study was approved the Research Ethics Board (CHREB) at the University of Calgary (REB21-1938).

Results: Results from the 3 CFAs demonstrated excellent internal reliabilities across care settings (emergency department $\alpha = .98$, primary care $\alpha = .98$, residential care $\alpha = .91$). Furthermore, most global fit indicators demonstrated good to excellent model fit (Factor Loading $< .75$, CFI $\leq .97$, RMSEA $\geq .09$, SRMR $\leq .02$). These results affirmed the robustness of the measure of compassion in diverse healthcare settings.

Compassion was a predictor of quality care rating in each setting. In the emergency department setting specifically, stepwise hierarchical multiple regression revealed compassion as significant predictor, explaining 19% additional variance in patients' quality care ratings. Additionally, one-way ANOVAs were utilized to examine the influence of demographic factors on mean compassion scores. Importantly, women reported significantly lower levels of compassion compared to men. Additionally, indigenous patients also reported significantly lower levels of compassion compared to white patients.

Conclusion: We demonstrated strong evidence for validity of the Sinclair Compassion Questionnaire across a diversity of healthcare settings, with excellent internal reliability. While highlighting the emergency department, compassion was identified as key contributor to patients' quality care ratings across settings. Patients' experiences of compassion were found to vary based on demographic factors.

Disclosure of Interest: None Declared

Comparative Analysis of Patient Safety Incidents: Identifying Disparities between Units with Frequent and Sporadic Recurrence in Hospital: (2347) Shih-Chiang Hung

ISQUA2024-ABS-2347

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Introduction: Patient safety incidents, posing unintentional harm to patients, persist as a pervasive concern in hospital settings. Despite considerable efforts to enhance patient safety, still certain units experience frequent recurrences of similar incidents, while others do not. This study aims to explore the disparities between units characterized by frequent and sporadic recurrence of patient safety incidents. By identifying and understanding the contributing factors to such variations, this study enhances our knowledge of underlying issues and propose targeted interventions to improve overall patient safety outcomes in hospital settings.

Methods: This retrospective study focused on patient safety incidents reported at Kaohsiung Chang Gung Memorial Hospital in 2023, specifically targeting recurring instances of similar incidents with a severity level above mild. Units that experienced these incidents more than twice were categorized as the "frequent recurrence" group.

Subsequently, we integrated the results of a hospital-wide safety culture survey conducted in the same year. The patient safety culture questionnaire assesses several dimensions such as teamwork, safety climate, job satisfaction, stress perception, resilience, work conditions, perception of management, and work-life balance. Comparative statistical analysis employed a two-tailed Wilcoxon rank-sum test to assess disparities between the frequent and sporadic recurrence groups.

Results: Kaohsiung Chang Gung Memorial Hospital is a medical center located in southern Taiwan. In 2023, a total of 291 patient safety incidents were reported. Categorizing these incidents by severity: 128 (44%) as no-harm or near-miss events, 79 (27.1%) as mild harm events, 77 (26.5%) as moderate harm events, and 7 (2.4%) as severe harm events. Frequent recurrence units identified were Nephrology Ward, Orthopedics Ward, Rehabilitation Ward, Outpatient Department, Orthopedics Division, Administration Division, and Pharmacy Department. Comparative analysis of safety culture survey results revealed significant disparities in three dimensions: teamwork, safety climate, and perceptions of management.

Conclusion: By identifying frequent and sporadic recurrence units and uncovering safety culture gaps, this study enables hospital leadership to develop tailored interventions targeting specific areas in need of reinforcement.

Disclosure of Interest: None Declared

HOW CAN WE ENSURE PATIENT SAFETY ON NOVEL AND RISKY SURGERY?-6-YEAR EXPERIENCE OF STATUTORY INTERNAL REVIEW SYSTEM: (1802) Shin Ushiro

ISQUA2024-ABS-1802

S. Ushiro ^{1 2,*}, S. Hamai ^{2 3} and Committee on public affairs and scientific research, Japan National University Hospital Alliance on Patient Safety (JANUHA-PS)

¹Japan Council for Quality Health Care, Tokyo, ²Division of Patient Safety, Kyushu University Hospital,

³Department of Orthopaedic Surgery, Graduate School of Medicine, Kyushu University, Fukuoka, Japan

Introduction: In the year 2014 and 2015, Japanese society was stunned at the series of media publicity on high mortality rate in patients who underwent novel and risky laparoscopic surgery conducted by a single surgeon in a prestigious university hospital. The investigation committee was swiftly launched and published in-depth report that demonstrated that there was little or no review process before implementing the surgery which was not well established in terms of evidence on safety. Therefore, the procedures provided was not covered by the public healthcare insurance which has a scope of wide range of cares evidenced as safe and effective through body of research. The central government subsequently revised the ministerial ordinance to mandate university hospitals to install with internal review system for novel and risky surgeries and procedures. We have run the review system in Kyushu University Hospital (KUH) since 2016. Here, in this study, type of surgeries, review comments in implementing novel and risky procedure, challenges and opportunities are analyzed and presented.

Methods: The internal review and follow-up system was embedded in KUH in 2016. Division of patient safety requested all the clinical departments to submit implementation plan of novel and risky procedure according to definition generated by the Ministry of Health (MoH). It is defined “Surgery or procedure that has never been conducted in the institution and could possibly cause devastating consequences such as death or serious conditions”. Records on the review during 2017-2022 including submitted documents and comments made by the committee were analyzed. In order to assess status quo of the review system of KUH, it underwent peer-review through on-site visit program of the National University Hospital Alliance on Patient Safety (JANUHA-PS). Concurrently, it was also a subject to hospital accreditation survey in 2023 provided by the Japan Council for Quality Health Care (JQ). Therefore, assessment by those external evaluations were also incorporated in the analysis.

Results: i) The number of procedures approved by year;

7 procedures (Year 2017), 11 (2018), 4 (2019), 9 (2020), 0 (2021), 9 (2022).

ii) Type of procedures;

A) Robotic surgeries dominated in the review system. B) Other surgical procedures are also included in the review list

with C) small number of procedures by internal medicine department.

Example of A); Robot-assisted-thoracoscopic mitral valvoplasty, thoracoscopic atrial septal defect closure, thoracoscopic esophageal cancer resection, lung cancer resection, mediastinum cancer resection, pantreatoduodenectomy, etc.

Example of B); Non-robotic procedures were also reviewed such as pediatric heart transplantation, implantation of left ventricular assist device for pediatric patient etc.

Example of C); Endoscopic bronchial thermoplasty, and ultrasonography- guided biliary drainage (EUS-BD).

iii) Clinical follow-up timetable;

The MoH presented a framework of the review system in which tracing of appropriate number of cases i.g. five cases in a row and time points for follow-up such as the time of the surgery/procedure conducted and patient discharge from the institution

are recommended. KUH adopted follow-up of five consecutive cases to assess in short term and time of discharge, 3-months and 1-year after discharge in middle and long-term follow-up timetable. No cases of adverse outcome related to the surgery/procedure were observed.

iv) Comments made by the review committee;

Most comments were made on informed consent or consent form. They were made for suggestion or recommendation in such a way of “Additional staff is included in informed consent process.”, “The number of cases treated at the institution with the same surgery/procedure is clearly displayed in the consent form.”, “Elevated risk which the patient inherently bears when he/she undergoes the surgery/procedure is described in the consent form.”.

v) Peer-review and hospital accreditation survey;

KUH underwent two different external evaluations such as JANUHA-PS's peer-review and JQ's hospital accreditation survey. Experts and surveyors of those programs assessed positively the KUH's progress of the review system except that JQ's survey suggested that follow-up need to reach out to patient who cease to visit KUH by being referred to affiliated institutions.

vi) Challenges;

We identified great number of challenges related to the review process such as,

- Failure to submit the plan.

- Failure to identify surgery/procedure to put in agenda due to broad leeway of the chair and ambiguous definition of the “Novel and risky surgery/procedure”. Accordingly, there was no review in 2021, while new chair took up nine petitions in agenda in 2021.

- Review committee and sub-committee "timetable" i.e. held on monthly basis does not meet physician's request for expeditious reviewing due for patient in rapidly deteriorating condition.

- Review committee "follow-up timetable" does not meet physician's request for expeditious reviewing on surgery/procedure to be provided for mounting number of patients.

- Careful informed consent must be carried out by multi-professional team i.e. not by “only physician”.

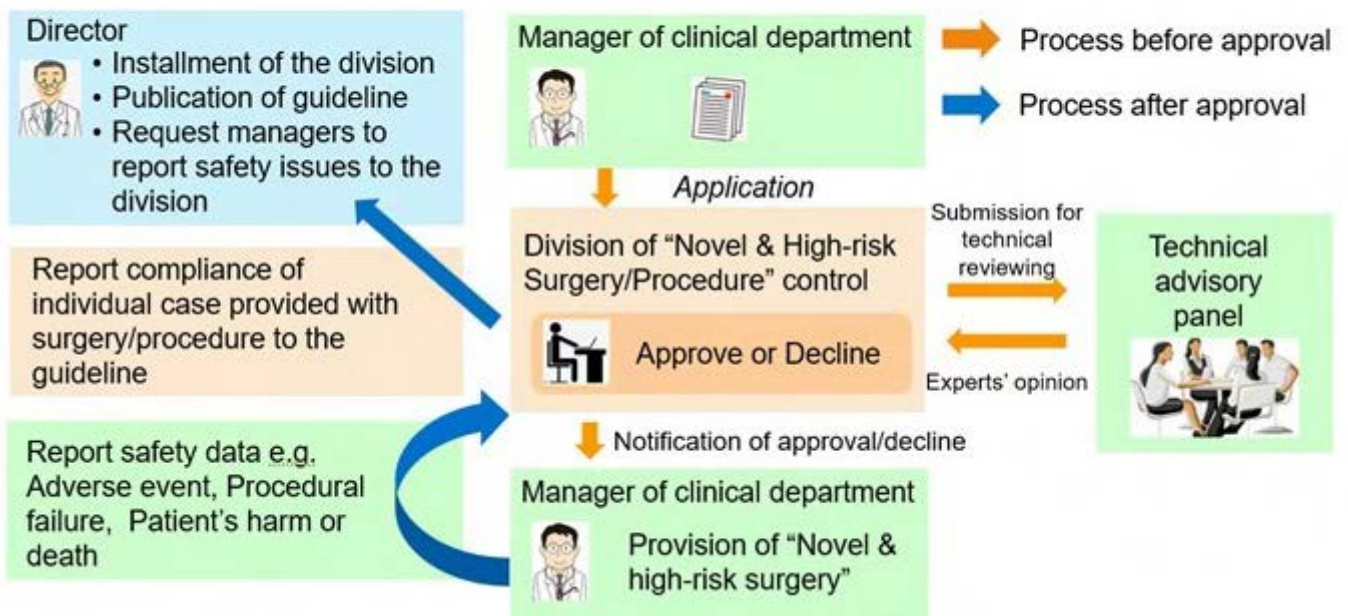
- The surgery/procedure is well reviewed among university hospital through assessment of the university hospital alliance, while no review system is currently in place on mandatory basis in other institutions such as community-hub hospitals where similar surgery/procedure is conducted.

vi) Opportunities;

The review and follow-up system seemed well ingrained in university hospitals not only revision of the government ordinance but by private programs such as external evaluation of the JQ and JANUHA-PS. The programs will continue to maintain quality of the system and hopefully encourage community hub hospitals to install with the same system in such a way to it settings of them.

Image:

Review and follow-up system for introducing a “Novel and risky surgery/procedure”



Conclusion: In the wake of high mortality rate of series of novel and risky surgery provided in a single hospital, university hospitals which provide highly advanced care have been under strict review ,

monitoring and assessment by the JANUHA-PS and the JQ. It serves as a catalyst in bringing cross-sectional vigilant system at institutional level to address siloed healthcare delivery on departmental basis that potentially put it at risk. There has been no remarkable publicity like the one observed in 2014-2015 hinting no sunning accidents on novel and risky surgery/procedure took place in university hospitals, while similar incidents allegedly occur in community-hub hospitals where no such system is in place. It is hoped that the review system is embedded in those hospitals in a way that fits local settings.

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Disclosure of Interest: None Declared

Afternoon

Short Orals

Health justice and equity of access to digital mental health services for Indigenous and ethnic minority youth – The Human Rights Framework and Obligations: (3259) Solveig Hodne Riska

ISQUA2024-ABS-3259

S. H. Riska 1,* , P. Viksveen 1

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Introduction: The objective of this presentation is to explore the human right to health for indigenous and ethnic minority youth. Moreover, we present the implications this has on states to ensure indigenous and ethnic minority youth equity of access to mental digital health services, treatment and health outcomes. The presentation is a part of the InvolveMENT collaborative research project that aims to improve the quality, equity, and efficiency of digital mental health services for groups of minority youth in Norway. The project will assess their use of, experiences with, and perspectives on digital services. The ambition is for digital services to be adapted so they are culturally sensitive, meet the needs of indigenous and ethnic minority youth and fulfil the state's obligations.

Methods: This presentation applies legal method as the methodology which involves interpreting and establishing the content of the human right to health care for indigenous and ethnic minority youth. Furthermore what obligations this imposes on the states to ensure equity of access to mental digital health services, treatment and health outcomes. The legal point of departure is the United Nation (UN) Convention on the Rights of the Child (CRC), article 24 on the right to health (1). To explore and determine the content of this right, in this context, the right is interpreted in light of the best interests of the child in article 3, the right to non-discrimination

in article 2, and the child's right to be heard in article 12. Relevant sources of law to interpret these rights are the UN's underlying General Comments on the rights arising from the CRC (5,6,7). The interpretation of indigenous and ethnic minority youths' right to health also includes the UN's International Covenant on Economic, Social and Cultural Rights (ESCR) and the UN Declaration on the Rights of Indigenous Peoples (2,3).

Results: Our preliminary results indicates that the human right is not to be understood as a right to be healthy, but the right to a system of health which provides equality of opportunity for people to enjoy the highest attainable level of health. To secure equal opportunities as an outcome, the access to the health services must be adaptable and culturally sensitive to youth with indigenous and ethnic minority background (1,2,4). This implies firstly that digital services should be available in different languages to fulfil the right (4,6). Secondly, to secure equal access, the services should provide resources for youth with indigenous and ethnic minority backgrounds to design, deliver and control the services so that they may enjoy equality of opportunity as a health outcome (3,4). Thirdly, it should consider traditional preventive care, healing practices and medicine. The right to health for youth with indigenous or ethnic minority backgrounds will not be equal without considering such forms of treatment (4,5). Lastly, the youth's best interest implies that the digital services should facilitate individual assessment of the young person's situation of vulnerability. It will not be the same as those of all the youth's in the same vulnerable situation. Each youth is unique and the digital health services must take into consideration the individual's uniqueness to provide equity of services (7).

Conclusion: Further conclusions will be available and presented in time for the conference proceedings.

References:

1. United Nations Convention on the Rights of the Child (CRC), 1989
2. United Nations Covenant on Economic, Social and Cultural Rights (ESCR), 1966
3. UN Declaration on the Rights of Indigenous Peoples, 2007
4. Committee on the Economic, Social and Cultural Rights, General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12), 2000
5. Committee on the Rights of the Child, General Comment no. 11, Indigenous children and their rights under the Convention, 2009
6. Committee on the Rights of the Child, General comment No. 15 on the right of the child to the enjoyment of the highest attainable standard of health (art. 24), 2013
7. Committee on the Rights of the Child, General comment No. 14 on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1), 2013

Disclosure of Interest: None Declared

Health Worker Safety Indicators during Pandemics, lessons from the COVID-19 Pandemic: (2513)
Alaa A. Sayed

ISQUA2024-ABS-2513

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Introduction: Health workers (HWs) are the frontline enablers to achieve quality and patient safety. Ensuring HWs are safe, physically and mentally, is a foremost global health priority. The World Health Organization (WHO) prioritizes HWs safety especially during global pandemics, this was evident during the COVID-19 pandemic. WHO Eastern Mediterranean Regional Office (WHO-EMRO) has taken the initiative to develop a set of safety indicators to assess the standard of HW safety in the EMR as an avenue to identify the gaps and challenges to drive improvement. The aim is to institutionalize HW safety indicators with the existing health systems in the region to ensure ownership by the Member States.

Methods: Published literature and existing WHO publications were initially screened to develop a primary set of HWs safety indicators. More than 120 regional and international experts in quality, patient safety, and health emergencies were consulted in two stages to filter these potential indicators through an e-Delphi survey. The assessment was based on three criteria, feasibility, importance, and amenability. A pilot test was advanced in 4 EMR countries to shape regional learning and assess applicability.

Results: The literature review yielded 40 indicators. The initial list was then circulated for expert input. A final set of 22 indicators were concluded and advanced to the pilot test stage. Four countries, including countries in emergency settings, Iran, Palestine, Saudi Arabia, and Jordan agreed to contribute in 2021. WHO-EMRO led the initiative in collaboration with WHO Country Offices and Collaborating Centers. Ministries of Health and local authorities were involved at different levels to ensure accountability. The pilot test ensued in eight primary care centers and six hospitals, including public and private. Meta-data files and data collection resources were developed to support the implementation and enhance uptake.

Image:



Figure 1: the flow of steps to identify the HW safety indicators.

Conclusion: The literature review yielded 40 indicators. The initial list was then circulated for expert input. A final set of 22 indicators were concluded and advanced to the pilot test stage. Four countries, including countries in emergency settings, Iran, Palestine, Saudi Arabia, and Jordan agreed to contribute in 2021. WHO-EMRO led the initiative in collaboration with WHO Country Offices and Collaborating Centers. Ministries of Health and local authorities were involved at different levels to ensure accountability. The pilot test ensued in eight primary care centers and six hospitals, including public and private. Meta-data files and data collection resources were developed to support the implementation and enhance uptake. Health workers' safety is a cornerstone for any prosperous and resilient healthcare system. The developed indicators cover but are not restricted to COVID-19-related safety measures and can be used in a multitude of healthcare setting.

Disclosure of Interest: None Declared

Mobilising staff, data, and AI to improve equity in a large UK hospital to improve quality and patient outcomes: (2778) Esther Kwong

ISQUA2024-ABS-2778

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Introduction: Healthcare services across the UK and globally have faced unprecedented challenges in managing rising demand from the impact of the Covid-19 pandemic and pre-existing health challenges. Globally we are facing widening disparities in health outcomes disproportionately affecting people living in poorer areas and those from Black, Asian and minority ethnic communities. There is an urgent need for more deliberate efforts to address equity, a core dimension of quality, through the delivery of our health services.

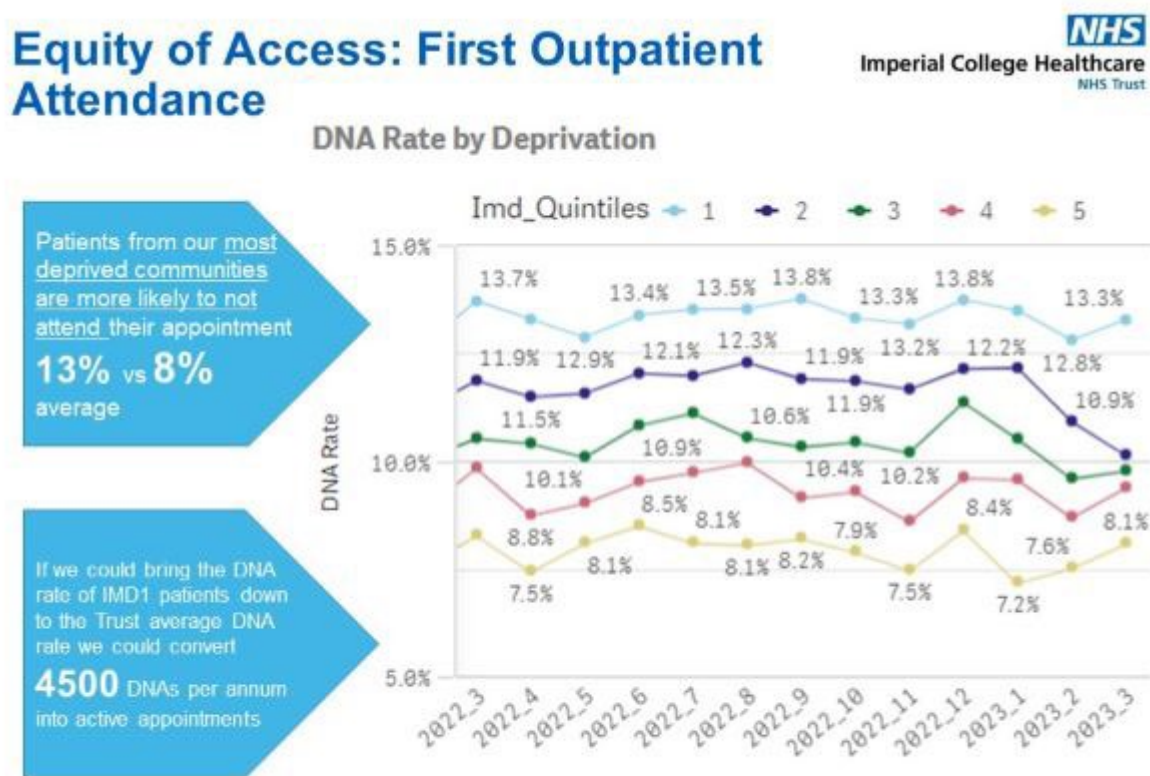
Objectives: This project explores approaches of a large hospital provider in the UK to develop a pathway of measuring and addressing health inequalities, to understand staff perceptions, and to stimulate staff involvement in direct patient solutions and interventions to address inequities in our hospitals e.g., outpatient attendances.

Methods: We set out to explore an approach to address equity through the dimensions of access, experience, and outcomes of care. The project focused on a mixed-method approach with several elements. 1) We conducted a series of qualitative interviews with a range of front-line staff to explore insights and experience of equity issues, and undertook thematic data analysis, 2) We used improvement approaches including process mapping and root cause analysis to understand some of the systemic organisational level issues, and 3) We examined routinely collected Trust data drawn from our hospital's electronic records system to understand what data we had to support equity measurement to highlight equity issues and inform the subsequent development of a subset of indicators for equity using datasets.

Results: The qualitative results demonstrate that many staff have an awareness of inequality and inequity and observed the effects of how wider determinants of health, housing, education, and social deprivation directly affect outcomes of care. Staff highlighted issues of accessing care relating to the 'inverse care law' and 'postcode lottery'. The qualitative data and the process mapping and root cause analysis highlighted the impact of language and lack of culturally sensitive care in some instances, which was seen as a major barrier to equitable care, affecting patient and staff communication, and the ability for shared decision-making. Staff also highlighted a desire for greater involvement in monitoring health inequalities, the need for routine data and dashboards and a proactive approach to addressing equity. Our quantitative analysis clearly showed that patients from more deprived backgrounds and those in the most deprived quintile were almost 50% more likely to not attend their outpatient appointments. Subsequently, an improvement project was initiated, piloting the use of AI to predict, identify and support patients who would be most likely to miss appointments and a co-production

approach with patients and staff on interventions to improve equity of access to outpatient appointments.

Image:



Conclusion: The equity of access project continues to progress against its aim to reduce the gap between the highest and lowest outpatient attendances. The hospital has now begun using routine equity data to support the development of a dashboard and continues to develop feedback channels for staff to provide qualitative insights to understand equity issues. The project has combined quantitative and qualitative approaches to understand the problem and techno-social approaches in the form of AI and digital solutions alongside patient co-production and staff education to address equity of outpatient attendance. Our work highlights the role of hospital providers in addressing health inequities to improve the health of their patients and populations. Mobilising staff and through greater use of digital and technological solutions embedded as a routine and sustainable culture for busy acute providers to address inequalities has been key. This is a crucial foundation to improve healthcare providers' ability to improve equitable healthcare outcomes for patients and populations.

Disclosure of Interest: None Declared

Towards Improving the sexual reproductive health (SRH) and gender equity of Women Survivors of Intimate Partner in a Sample of Syrian Refugees in Jordan, a cross-sectional Study: (1788) Sarah Ahmad Aitan

ISQUA2024-ABS-1788

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Introduction:

The United Nations defines violence against women as "any act of violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life". Gender-based violence (GBV) is a global pandemic and healthcare emergency, happening in all societies, classes, races, religions, and ethnicities and does not have boundaries related to place or time. According to the World Health Organization (WHO), 1 in 3 women will experience physical or sexual abuse in their lifetime. Gender-based violence is a phenomenon deeply rooted in gender inequality and continues to be one of the most notable human rights violations and significantly impacts women's health. The primary purpose of this research is to study the negative sexual reproduction health consequences as a result to identify and address yet improve the SRHR needs of the women who are survivors of violence in displacement settings.

Methods:

This research used a cross-sectional research design; specialists executed direct interviews with the survivors of violence. The inclusion criteria were married women who are survivors of recent violence. The number of study sample participants was (102) females mostly from Syrian refugees. Informed consent was signed before initiating the interviews and after explaining the aim of the study. Approval to conduct the research was obtained from the Research Ethical Committee in the Institute for Family Health after reviewing the questionnaire and data were collected from Jan 1st, 2021, until July 7th, 2022. All data were analyzed using the SPSS software. The Pearson correlation coefficient was used to measure internal item consistency and Item discriminative validity. Cronbach's alpha coefficients determined the whole scale. A t-test was performed to examine the existence of statistical significance between the means to test the first question. A level of $p < 0.05$ was considered statistically significant. Finally, the frequencies and percentages were calculated and supported by graphs to answer the second question.

Results: The results were as follows according to the research questions:

What are the predictors of unintended Pregnancy and the prevalence of unmet needs in the sample population?

Results showed that **67,6%** of the study sample had unintended Pregnancy, with the highest percentage in the age group less than 18 representing **43%**.

The percentage of unmet needs for contraception was **55 %** among the study sample compared to Fourteen per cent of married women aged 15-49 according to the 2017-18 Population and Family Health Survey Key Findings in Jordan

What is the prevalence of maternal health care conditions/complications in the study sample?

Antenatal care, delivery, and postnatal care:

This study showed that almost all recent Intimate partner survivors married women (98%) aged 15-49 received at least one antenatal care (ANC) visit from a skilled provider (doctor or nurse/midwife). (73.5%) women aged 15-49 made 4+ ANC visits, and 16.6% had the recommended 7+ visits. 26% received inadequate visits (defined as less than four, mostly due to financial reasons).

Almost all (96%) of births in the study sample were delivered in a health facility. Fifty-two per cent of women aged 15-49 did not receive a postnatal checkup.

C-sections: 26% of births were by C-section, where cesarian section births are most common in the marriage age group below 15, with the most common indication being the previous cesarian section.

Breastfeeding

only 67% were breastfed in the first hour of life.

Current Use and Trends of Family Planning:

(78.1%) currently use a modern method of family planning, and (21.9%) use a traditional method. Intrauterine devices are the most popular modern method (50.0%), followed by oral pills (15%).

Women's Nutritional Status:

The researchers took weight and height measurements of survivors of recent (Intimate partner violence (IPV)); results showed that 49% of the study sample were obese, having a body mass index of 30.

Source of sexual information:

40% had no source of sexual information

30% received from a social circle (as friends, mother, sister, teacher)

Common sexual reproductive health conditions:

- Recurrent vaginitis: 54%
- Infertility (male, female, unexplained): 28%
- Dyspareunia (37%)

- Low sexual drive (42%)

Conclusion: Little research has been conducted on the consequences of violence in low or middle-income countries on sexual reproductive health especially in conflict - post-conflict settings. The current study extends the existing state of knowledge by assessing associations between violence and unintended Pregnancy, unmet needs for contraception, and the prevalence of common sexual and reproductive health conditions. This study showed that child marriage was significantly associated with unintended Pregnancy. In addition, it showed the prevalence of negative health consequences such as inadequate postnatal contacts, recurrent vaginitis, dyspareunia, and lack of resources for sexual health information. The need of the hour is to take specific measures to reduce the incidence of unintended pregnancy and to design quality improvement methodologies focused at improving the sexual reproductive health and well-being of women survivors of intimate partner violence, especially in displacement and post-conflict settings, in addition to addressing the root cause of the issue lying in gender inequality. the measures can include advocating for sexual reproductive health and rights and inclusion of men in the awareness activities. A second phase of a study will be conducted to evaluate the improvement measures.

Disclosure of Interest: None Declared

Hospital Transition from Paper Towels to Hand Dryers: A Smart Solution: (3042) Mr. Uzair Ali Shaikh

ISQUA2024-ABS-3042

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Introduction: Pakistan is one of the largest paper production country with 700,000 tons production reported in 2019. Among paper production, tissue products show a significant growth of 4% every year. This is because tissue and hygiene products are essential to everyday life, and their demand is increasing in commercial sectors due to a greater awareness about personal health and hygiene among consumers. In various commercial sectors, hospitals utilized highest proportion of tissue/ hygiene paper towel because staff, patients, and visitors are encouraged to frequently wash and dry their hands to prevent the spread of infections ultimately leads to higher tissue consumption. Pandemic COVID-19 also encouraged more widespread global consumption of single-use products- tissues for drying. However, excessive use of tissues/ hygiene paper towels for drying has several implications.

Problems with using of paper hand towels are listed below:

- **Increased Costs:** Excessive use of tissues leads to increased burden on purchasing and disposal of higher volume of tissue products.

- **Environmental Impact:** The production of tissues utilizes natural resources like water, energy, and trees as raw materials. Cutting trees for production of paper causes deforestation which leads to many other environmental issues e.g. global warming.

- **Increased waste production:** Overuse of tissues contributes to increased waste and environmental burden due to the production and disposal of the tissues

- **Sustainability Concerns:** Overuse of tissues contradicts efforts toward sustainability and responsible resource utilization within the healthcare sector.

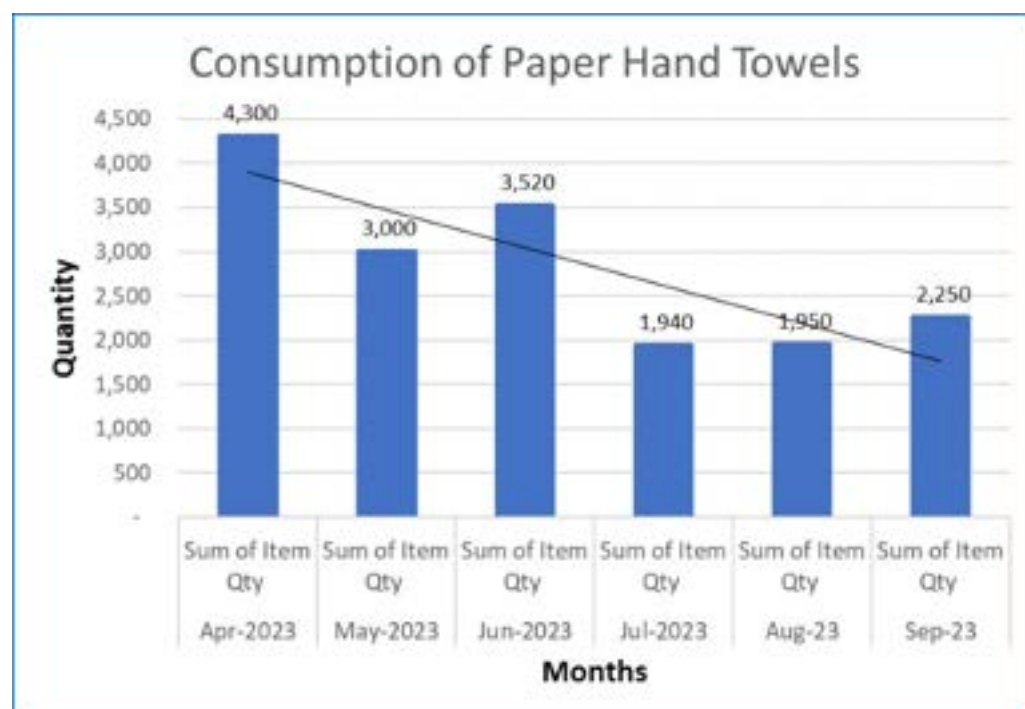
- **Carbon Emissions:** High environmental impact with 13.9g CO₂ per dry

Methods: Evercare Hospital Lahore is a 270 Bedded hospital with 4 types of room categories all with attached bathrooms. A total of 112 toilets are there in the hospital with 33 toilets in access to the public. Baseline data regarding hygiene paper towel consumption in the hospital and associated cost was collected. The Project was initiated in the month of April -23 with the installation of hand dryers in all the non-clinical/public toilets and data collection for the impact was also done at the same time.

Results: From the data collected, it was found that total hygiene consumption per month in the toilets were 4,000 and the cost per month per toilet was 5,536 PKR. Overall, the trend showed that the consumption was increasing with increasing cost and additional burden on waste disposal. On the basis of data collected an alternative strategy electric hand dryer was proposed. Electric hand dryers involve low running cost and environmental impact as compared to paper towels. Multiple options were explored, based on price comparison and energy efficiency IZONE I303 1500W hand dryers were finalized.

Cost benefit analysis was done and it was found to be beneficial.

Image:



Conclusion: After installation of hand dryers, quantity of consumption of paper towels was significantly reduced. This caused reduction in operational cost of Hospital by 100,000 PKR in total per month. Return on investment has successfully been achieved within 3.3 months.

A significant reduction of waste has been noted after the installation of hand dryers in public areas. A decreasing trend depicts reduction in general waste generation and disposal thus reducing harmful impact on environment.

Disclosure of Interest: None Declared

Evaluation of Measures That Can Be Taken for Public Health within Framework of Climate Change Adaptation and Action Plan: Türkiye 2010-2023 Climate Change Adaptation and Action Plan Example: (1914) Didem Incegil

ISQUA2024-ABS-1914

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Introduction: Today, researchers state that global climate change is a multifaceted and complex problem that can lead to serious environmental and socioeconomic consequences and even threaten the security of countries, and its effects will become one of the most important problems that threaten the lives of future generations. Countries are creating strategies to fight climate change and preparing long-term adaptation and action plans. In this study, the measures taken to protect public health within the scope of the Türkiye Climate Change Adaptation and Action Plan 2010-2023 were examined and the benefit of creating a country policy and strategy to prevent climate change damages was emphasized.

Methods: Türkiye is also aware of the importance of international cooperation within the scope of reducing greenhouse gas emissions that cause climate change and combating climate change. In this context, Türkiye sets as a goal to contribute to efforts to combat global climate change within the framework of "common but differentiated responsibilities", which is one of the basic principles of United Nations Framework Convention on Climate Change (UNFC-CC); It reveals national mitigation, adaptation, technology, financing and capacity building policies. Türkiye has prepared the "National Climate Change Strategy 2010-2023" in order to contribute to global efforts to reduce effects of climate change within the framework of its own special conditions and opportunities. In this study, measures taken to protect public health within the scope of Türkiye Climate Change Adaptation and Action Plan 2010-2023 were examined.

Results: Climate change has direct or indirect effects on health. Direct effects; temperature extremes, heat/cold waves, hurricanes, storms, floods and fires; indirect effects are; vector diseases, infections, epidemics, water and foodborne diseases, air pollution and respiratory diseases, stratospheric ozone depletion and UV Radiation, allergic diseases and field dust. Within the scope of Türkiye National Climate Change Strategy 2010-2023, priority targets and sub-targets under the title " Public Health" are given in Table.1. National targets within the scope of this strategy are stated below;

Reducing the impact of natural disasters resulting from extreme weather events on public health and social life

Strengthening the institutional infrastructure to monitor increasing diseases and increasing internal and external cooperation

Ensuring water and food security, combating water- and food-borne diseases,

Carrying out necessary work to ensure that sensitive groups are not affected by negative effects of climate change.

Reducing the negative contributions of health institutions to climate change.

Raising public awareness for more effective protection from the negative effects of climate change on health.

Conducting monitoring and evaluation studies.

Image:

PURPOSE	Objective	Actions	Outputs and Performance Indicators
PURPOSE UBS1. Identifying the existing and future effects and risks of climate change on public health	UBS1.1. Researching the effects of extreme weather events on public health	UBS1.1.1. Monitoring and evaluating the present and future effects on public health of extreme weather events such as heat waves, hurricanes, floods and drought, based on climate projections.	Impact assessment reports and monitoring systems
	UBS1.2. Researching and monitoring the link between climate change, infectious diseases and health risks and determining possible measures	UBS1.2.1. Researching and following up the existing and future relationship between communicable diseases and climate change UBS1.2.2. Identifying the risky areas in terms of public health, and determining the measures to be taken UBS1.2.3. Establishing Tropical Diseases Diagnosis Laboratories at the regional level, or strengthening the infrastructures of some of the public health laboratories to this end in some provinces	Research reports Map of public health risks arising due to climate change Strengthened diagnosis and response infrastructure
PURPOSE UBS2. Developing the capacity to combat risks originating from climate change in the national healthcare system	Objective UBS2.1. Developing emergency response action plans in risky areas, and supplying the necessary infrastructure	UBS2.1.1. Establishment and spread of early warning systems in order to reduce the effects of extreme weather events on human health, conducting emergency situation warnings UBS2.1.2. Developing and implementing pilot programmes in the areas of epidemics and emergency health risks UBS2.1.3. Raising the awareness of "National Medical-Rescue Teams (UMKE)" on adaptation to the impacts of climate change UBS2.1.4. Increasing the competence and practical capabilities of mobile health teams of Provincial Health Directorates in risky areas, with regard to infectious (communicable) diseases UBS2.1.5. Cooperating with international organizations and countries working on the effects of climate change on public health UBS2.1.6. Preparing and disseminating guides describing what citizens and agencies should do in the event of possible infectious diseases during extreme weather events, and delivering periodic trainings	Emergency situation warning reports Early warning systems Repeatable and scalable model studies Emergency response teams strengthened in the area of climate change risks, including disasters and communicable diseases Reduction of communicable disease risks at the local scale Exchange of knowledge and experience through joint projects/activities Ottak projesi/kurulumlar politika metotleri ve bilgi paylasimi Public health guides
	Objective UBS2.2. Strengthening the capacities of health sector organizations against health risks arising due to climate change	UBS2.2.1. Carrying out capacity-building activities on health risks arising from climate change, for health professionals working at protective health services (family health system) UBS2.2.2. Announcing the "Ministry of Health - Climate Change Adaptation Programme" nationwide UBS2.2.3. Establishing Ministry of Health "Disaster Coordination Centre" in areas that may be affected from climate UBS2.2.4. Ensuring coordination and cooperation between related agencies and organizations with regard to climate-sensitive disasters and the health risks they will create UBS2.2.5. Strengthening the treatment and control (including vaccination programmes and vector control) and evidence-based protection, including integrated health observation and surveillance of vector-borne (transmitted by a carrier) and zoonotic (transmitted from animals to humans) diseases, and infectious diseases UBS2.2.6. Researching/monitoring the effectiveness of possible adaptation measures to be taken in the health sector for the protection from the effects of climate change, including early warning, strengthened disease observation, information systems and other public health measures UBS2.2.7. Researching/monitoring the common benefits of mitigation/adaptation measures, negative impacts and the adaptation costs UBS2.2.8. Strengthening observation and preparedness level with regard to water availability, water quality and hygiene in urban and rural areas- diarrhoeal and giardiasis UBS2.2.9. Identifying the health risks that may occur due to population increase in climate-vulnerable zones and in areas located on migration routes, and increasing the capacities of health organizations in these areas UBS2.2.10. Cooperating with countries and national and international organizations working in areas that may affect public health due to climate change such as migration movements, international trade and tourism	Capacity building activities Communication campaigns Effective health coordination infrastructure Partnerships, joint projects Strengthened public health monitoring and decision-making system Strengthened public health monitoring and decision-making system Strengthened public health monitoring and decision-making system Water and hygiene monitoring system and prevention and information guides Research reports, capacity building activities Possible disease spread on a regional scale and development of international measures through sharing of information and experience

Conclusion: Today where effects of global warming are felt more and more every day, World Health Organization (WHO) estimates that there are more than 150 thousand deaths annually due to climate changes. According to United Nations report titled The State of Food Security and Nutrition in the World, the number of people suffering from hunger reached 690 million in 2019. Many diseases or causes of diseases caused by climate change are of great concern to public health. Large budgets are spent every year to eliminate the negative effects of climate change. Measures and adaptation practices to be taken within the framework of adaptation to climate change will minimize losses or health risks. Countries should create long-term policies regarding climate change and prepare strategies and action plans accordingly. Prepared action plans must be sustainable and followable. In order to strengthen and implement climate change policies, international collaborations should be used as well as national initiatives.

Disclosure of Interest: None Declared.

Reduce Paper Usage in Hospitals– A Step Towards Environmental Sustainability and Digitalization: (3444) Huma Naz

ISQUA2024-ABS-3444

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Introduction: There is a growing need to implement effective strategies for reducing paper consumption. This imperative arises from various factors, including environmental concerns, cost efficiency, and the transition towards a more digitally oriented healthcare landscape. The project focuses on digitalization and streamlining paper-based procedures to boost operational efficiency, optimize resource utilization, and ultimately reduce costs with overall positive environmental impact in a tertiary care hospital in LMIC.

Methods: Data collection and analysis was carried out in 2022. Utilization of different type of papers along with the purpose, pattern and cost impact was studied. The project was divided into phases based on types of utilization; 1) Papers used for administrative purposes (Common office use, log sheets, confirmation lists, appointment lists, schedules, rota, assignments etc.), 2) Paper used for clinical purposes (Patient Education material, prescriptions, ordering sheets, letter heads, medical certificate, other forms etc.).

Possible alternatives for each type of paper usage were brainstormed and several small pilot testing were carried out to assess the implications from end of year 2022 onwards. Several strategies were deployed to rationalize paper usage including Process Reengineering, Behavioral Transformation, Digitalization, Monitoring & Control and Innovation.

Results: Paper consumption for administrative purposes reduced to up to 17% in just first 6 months after the implementation of the project strategies and without any major investment. The second important targeted category was education material, which was digitalized with the help of QR code leading to 14% reduction in paper consumption during this time. As the paper quality in education material is much higher than other papers, the cost savings are also higher. The estimated cost saving through this project is around 27% and expected to improve further as we gradually expand our scope within and outside the department. The concomitant environmental impact is also significant for e.g., the number of trees saved so far (10 trees) along with other environmental impact indices of total energy savings (equivalent to 13.6 residential refrigerators operated/year), water savings (10,030 gallons of water), greenhouse gases emission reduction (8,320 pounds of carbon dioxide, equivalent to 0.8 cars/year etc.).

Image:

Patient Education Material

Now access all our Patient Education Material on your phone!



Step 1

Open your
camera or QR
app



Step 2

Frame the
QR Code.



Step 3

Tap the notification
that pops up to
open the link.



Step 4

Find your
required topics of
interest and click
to read.

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https://hospitals.aku.edu/Pakistan
akuhpakistan | AKUHPakistan | AKUHPakistan

Conclusion: Our proactive approach to paper reduction in hospital setting through various process reengineering and technology driven strategies have a positive impact underscoring our commitment to environmental sustainability as well as operational efficiency. Monthly consumption patterns for each category of item are now part of the **unit performance indicator** to ensure sustainability of actions and encourage teams to do more.

References: Estimated environmental impacts were calculated using the Environmental Paper Network's Paper. <https://c.environmentalpaper.org/>

Disclosure of Interest: None Declared.

Environmental Impact of extensive use of Personal Protective Equipment in health care during COVID-19: (3536) Tilotma Jamwal

ISQUA2024-ABS-3536

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Introduction: Covid-19 pandemic has caused health crisis and concerns worldwide. The use of Personal Protective Equipment (PPE) has been the primary behavioural and policy response to avert the infection of coronavirus. (1) In health care, single-use PPE are commonly used, which are made up of synthetic fibers such as polypropylene and polyester and are preferred due to their low-cost, hydrophobic nature and better barrier properties. (2) This study aims to provide an overview of the environmental challenges associated with Covid-19 pandemic faced in the Public Institute of National Importance (INI), India. The study determines carbon footprint in terms of carbon emission equivalent associated with PPEs.

Methods: Retrospective cross-sectional study was carried out in a public sector Institute of National importance India. The data was collected for pre COVID-19 (January 2019 - December 2019), First wave COVID-19 (January 2020- December 2020), Second wave COVID-19 (January 2021- December 2021), Third wave COVID-19 (Jan 2022- December 2022) as well as post COVID-19 (January 2023-December 2023). Life cycle assessment approach was used to estimate emissions and resulting environmental impact from the most common PPE items prescribed and used in India: masks, gloves, gowns, and face shield. Data of use of these PPE items was retrieved from records maintained at the Stores section for the duration during the pandemic, before pandemic as well as after the pandemic. Monthly utilization average will be ascertained for each PPE item to nullify the effect of skewed data (if any) and enable comparison about the use during, before and after pandemic. The data on the volumes of these PPE distributed for use by health and social care services in the INI was summated, to estimate the overall environmental impact of PPE during the said period.

Results: Our results show a significant difference in consumption of PPE during COVID-19 ($p < 0.05$) in comparison to pre COVID-19 and post COVID-19 phase (Image: Table 1). The data shows that PPE were extensively used during COVID-19. Carbon emission during COVID-19 was 2566 tonnes eq CO₂ whereas pre pandemic it was 321 and post pandemic it came down to 974 tonnes eq CO₂ (Table 2). The average carbon footprint generated by each type of PPE in KgCO₂ is (1): N95 mask - 0.05/single use, Surgical Mask - 0.059/single use, Disposable sterile surgical gowns (3) - 0.5/piece, Face Shield - 0.35/piece, Nitrile gloves (4) - 0.028/use .

Image:

Table 1:

Item	Pre COVID-19	First wave COVID-19	Second wave COVID-19	Third wave COVID-19	Post COVID-19	Total Quantity
N95 Face mask	19792	1177583	2414635	1396538	500055	5508603
Surgical Mask	1593510	1006940	1177650	1888620	2102580	7769300
Disposable sterile surgical gown	37800	336726	745928	312786	227445	1660685
Face shield	0	5936	8558	1623	10	16127
Nitrile gloves	0	100932	544995	129495	0	775422
Sterile Surgical gloves	989205	1176758	1797686	3413880	3388725	10766254
Total	4155235	5647467	7066460	7231119	6317612	30417893

Table 2:

Item	Pre COVID-19 Carbon emission	First wave Carbon emission	Second wave Carbon emission	Third wave Carbon emission	Post COVID-19 Carbon emission	Total Carbon emission
N95 Face mask (0.05 Kg eq CO ₂)	989.6	58,879.15	1,20,731.75	69,826.90	25,002.75	2,75,430.15
Surgical Mask (0.059 Kg eq CO ₂)	94,017.09	59,409.46	69481.35	1,11,428.58	1,24,052.20	4,58,388.70
Disposable sterile surgical gown (0.5 Kg eq CO ₂)	18,900	1,68,363	3,72,964	1,56,393	1,13,722.50	8,30,342.50
Face shield (0.35 Kg eq CO ₂)	0	2,077.60	2,995.30	568.05	3.5	5,644.45
Nitrile gloves (0.028 Kg eq CO ₂)	0	2,826.10	15,259.86	3,625.86	0	21,711.82
Sterile Surgical gloves (0.21 Kg eq CO ₂)	2,07,733.05	2,47,119.18	3,77,514.06	7,16,914.80	7,11,632.25	22,60,913.34
Total	321639.74	5,38,674.49	9,58,946.32	10,58,757.19	9,74,413.20	38,52,430.96

Conclusion: In view of the highly contagious COVID-19, there has been an unprecedented need, consumption, and release of single-use plastic products. Our study reveals a staggering carbon footprint of 2566 tons equivalent of CO₂ attributed to the extensive use of Personal Protective Equipment (PPE) during the COVID-19 pandemic. Addressing this issue requires a multifaceted approach, innovations to enhance economic and environmental efficiency, governmental support and contingency plans, the development of advanced methods for plastic waste treatment, and stringent enforcement of regulations.

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Disclosure of Interest: None Declared

The healthcare provider views on the implementation of the national guidelines of patient safety incident reporting in a selected hospital in North West province, South Africa: (2599) Sabelile Tenza

ISQUA2024-ABS-2599

S. Tenza^{1,*}, A. A. Abuosi², N. Scheepers¹, S. K. Coetzee¹

¹School of Nursing Science, North-West University, Potchefstroom, South Africa, ²Department of Public Administration and Health Services Management, University of Ghana Business School, Legon, Ghana

Introduction:

The World health Organisation (WHO) Global patient safety action plan 2021-2030, urges countries worldwide to set and adhere to national level policy guidelines that direct patient safety in hospitals. In South Africa the national guidelines for patient safety incident (PSI) reporting guides the management of PSI's in hospitals. Since its implementation in 2017 there has not been studies in the North West Province examining the implementation of these guidelines. This study explored the views of healthcare providers in the implementation of PSI guidelines.

Methods: This was a qualitative exploratory study design. Following ethics approval (N W U - 00059 - 23 - A 1), nine focus group discussions consisting of 6-10 participants per group were conducted with health care providers including doctors, physiotherapists, occupational therapists, pharmacists, nurses, and patient safety committee leaders. The data collection tool

focused on the context, process and challenges of implementing the guidelines. Data was collected between August and December 2023. Data was transcribed verbatim and thematic data analysis was done; principles of trustworthiness were adhered to in conducting the study.

Results: We found that the context of implementing guidelines is influenced by the need to learn from existing incidents, and the need to provide structure in reporting. The process of reporting is impeded by the insufficient knowledge of the implementers, lack of feedback from reported incidences lead to demotivation, fear of reporting, insufficient human resources constrained time available for reporting. Duplicated approaches in reporting, and lack of collaboration across healthcare providers impeded implementation.

Conclusion:

Innovative training approaches catering for all group of healthcare providers, frequent updates on reported incidences, promotion of just culture and simplification of the reporting process could improve the implementation.

Disclosure of Interest: None Declared

Improving care for respiratory conditions, including Covid 19 in the public primary care system in Mendoza, Argentina: (2801) Ezequiel Garcia Elorrio

ISQUA2024-ABS-2801

E. Garcia Elorrio ^{1,*} on behalf of Collaborative Group to Improve Primary Care Respiratory Care in the Province of Mendoza, A. Falaschi ², F. Jorro Baron ¹, M. B. Peralta Roca ²

¹Quality and Safety, Institute for Clinical Effectiveness and Health Policy, Buenos Aires,

²Epidemiology and Quality of Care, Minister of Health, Mendoza, Argentina

Introduction: During the recent pandemic, healthcare systems have had to adopt various strategies to mitigate the negative impact of COVID-19. The primary level of care played a crucial role in ensuring continuity in the provision of health services, both for COVID-19 patients and those with other conditions. What is particularly also now also important with the surge in cases observed in the LAC region.

The primary goal of our work now is to increase the adoption of evidence-based interventions for timely identification of deterioration in adult patients with confirmed or suspected respiratory COVID-19 at the primary level of care in the province of Mendoza, Argentina. Secondary objectives include assessing the frequency of unexpected events during visits to Hospital Emergency Services, the rate of hospitalizations related to respiratory COVID-19 and other acute respiratory infections in adults, evaluating the experience with the patient care process and healthcare providers, and determining the 30-day mortality rate.

Methods: We developed a Quality Improvement Collaborative in 9 Primary Health Centers (PHCs) from the public sector of the Province of Mendoza, over a 12-month period under the design of an uncontrolled interrupted time series. We implemented specific interventions supported by an implementation science based multimodal model to achieve the project objectives, with components such as leadership commitment, teamwork improvement tools, visual and digital reminders, audit and feedback and direct observation among others. The study had two phases: Formative phase: during baseline data collection we developed a qualitative evaluation based on in-depth interviews in each of the participating PHCs. Intervention phase: local study coordinators was trained on a) Audit and feedback, b) facility-specific treatment guidelines or clinical pathways to enhance the effectiveness focused on the most common circumstances associated with respiratory syndromes in adults, c) Usage of a bundle of specific tools to improve care of Covid-19 in the ambulatory primary care setting consisting of: triage of adult patient with acute respiratory symptoms tool, usage of a National Early Warning Score 2 deterioration scale, portable home oximeters usage and appropriate use of telehealth, d) education to improve detect and treat acute respiratory infections through posters, flyers and newsletters, or electronic communication to staff groups. The learning sessions and action periods are meant to test and implement changes in the CAPS, and data is being collected to measure the impact of the changes using an interactive database. Subsequently, an analysis will be conducted on the results, lessons learned, the applicability of interventions, and modifications to the work plan following the PDSA cycles.

Results: We plan to share findings on the main and secondary outcomes using a Control Charts as well describe predictive factors that had influenced trends of results.

Conclusion: Results from this work will be of use to understand how primary care based interventions will support the health system during times of need. Will also contribute to proper use of resources as well improve clinical outcomes as well patient/provider experience.

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Disclosure of Interest: None Declared

Prescribing error patterns among junior medical officers in paediatrics: (1256) Johanna Westbrook

ISQUA2024-ABS-1256

J. I. Westbrook^{1*}, T. Badgery-Parker¹, L. Li¹, E. Fitzpatrick¹, M. Raban¹

¹Australian Institute of Health Innovation, Macquarie University, Sydney, Australia

Introduction: Medication errors in hospitals continue as one of the most significant patient safety risks worldwide. In paediatrics the consequences of such errors can be particularly acute given this vulnerable population. Understanding the epidemiology of medication errors in hospitals has relied heavily on review of incident report data and small-scale audits.

Understanding the distribution and nature of medication errors is central to devising effective interventions. Patterns of medication errors have most often used patients as the denominator. Studies of the distribution of medication among prescribers are rare.

Our aim in this study was to examine variation in the rates of prescribing errors among junior medical officers (JMO) working in the two major paediatric referral hospitals in Sydney, Australia.

Methods: This is a secondary analysis of medication chart review data from two paediatric referral hospitals. All medication orders for a random sample of patients (stratified by ward) in 9 wards at Hospital A ($N = 10596$ orders) and 5 wards at Hospital B ($N = 8356$ orders) over a 3 month period in 2020 were assessed for errors. For this analysis, orders entered by junior medical officers (JMOs) were analysed. We calculated error rates per prescriber by error type and severity for all orders and for orders involving high-risk medicines. Each estimate was restricted to prescribers with at least 10 orders in the denominator.

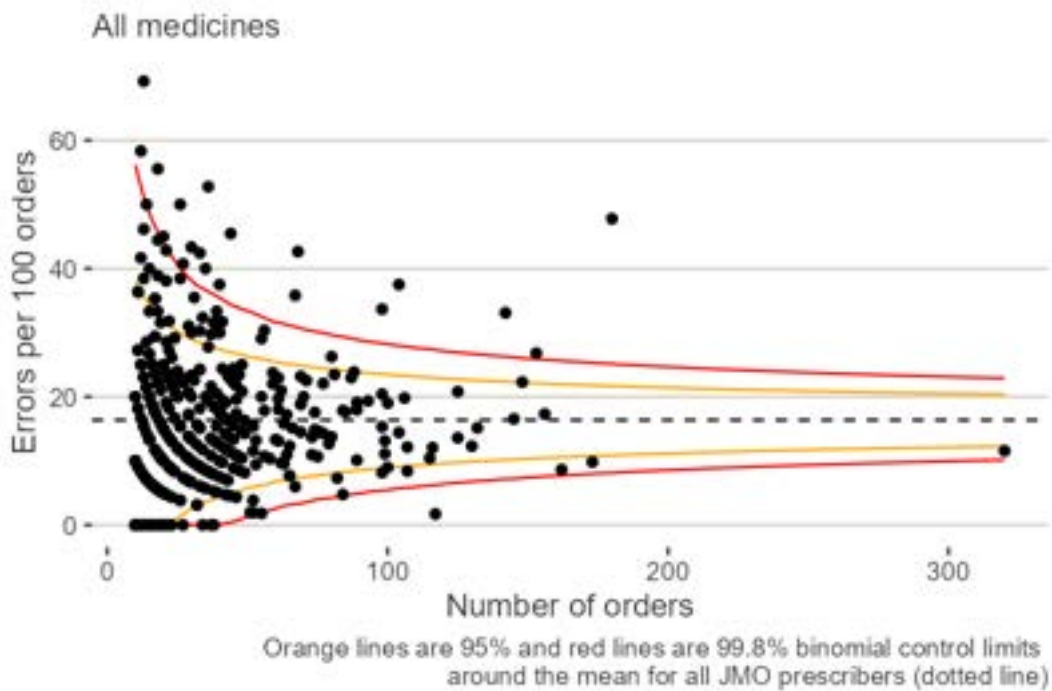
Results: Of 645 JMO prescribers in the dataset, 453 entered at least 10 orders (total 17097 orders) and 139 entered at least 10 orders for high-risk medicines (total 2611 orders). The overall error rate was 16.6 (95% CI 16.0–17.2) errors per 100 orders for all medicines and 20.0 (95% 18.5–21.6) errors per 100 orders for high-risk medicines. The error rate was higher at Hospital B (18.7; 95%CI 17.8–19.5) than Hospital A (14.8 errors/100 orders; 95%CI 14.1–15.6).

The prescriber-specific error rates ranged from 0 to 69.2 errors per 100 orders (median 14.9). Rates of potentially serious errors ranged from 0 to 46.2 errors per 100 orders (median 0). Fig 1 shows the individual prescriber-specific error rates with 95% and 99.8% binomial control limits around the mean (16.4 errors per 100 orders). Each dot represents a JMO prescriber. Twenty-two prescribers (4.9%) had error rates above the 99.8% upper control limit while one had an error rate below the 99.8% lower control limit.

For high-risk medicines, the prescriber-specific error rate ranged from 0 to 75.0 errors per 100 orders (median 16.7) for all medicines and from 0 to 60.0 for potentially serious errors (median 0). Five prescribers (3.6%) had error rates for high-risk medicines above the 99.8% upper control limit.

Among 346 prescribers with ≥ 10 orders for oral medicines, the median error rate was 13.6 errors per 100 oral orders and ranged from 0 to 80.0. Among 173 prescribers with ≥ 10 orders for IV medicines, the median error rate was 10.0 errors per 100 IV orders, ranging from 0 to 100.0 orders per 100 IV orders. There was no correlation between the prescriber-specific oral and IV error rates (Pearson $\rho = -0.02$; 95%CI -0.17 to 0.14).

Image:



Conclusion: This study provides a rare insight into the prescribing error patterns of a large sample of junior doctors. This is a first step in exploring both the types and frequencies of errors occurring and hence where strategies to provide user feedback and interventions should be focussed for junior medical officers.

Disclosure of Interest: None Declared

Identifying actual harm from prescribing errors in acute paediatric care: (2373) Magdalena Z Raban

ISQUA2024-ABS-2373

V. Mumford^{1,*}, M. Z. Raban¹, E. Fitzpatrick¹, L. Li¹, T. Badgery-Parker¹, J. I. Westbrook¹

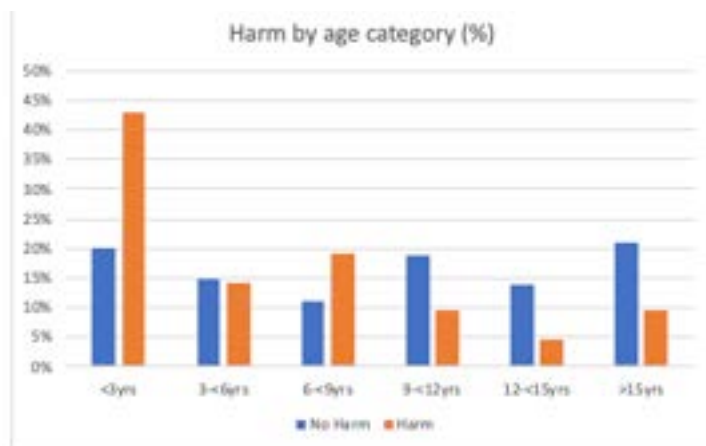
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Introduction: Medication errors in paediatrics can be difficult to identify as doses need to be adjusted for patient age and weight, and off-label use is necessary where medications have not been specifically approved for this patient group. Identifying actual harm from medication errors can also be difficult to quantify due to age related changes in vital signs and the challenge of eliciting symptoms in younger and non-verbal patients. This has resulted in little data on actual harm from medication errors in children. Despite these challenges, our aim was to identify the actual harm resulting from prescribing errors in a paediatric hospital.

Methods: Prescribing data were collected from a retrospective record review in an Australian tertiary paediatric hospital.¹ Pharmacists reviewed 26,369 orders and identified 19,692 errors which were classified according to their potential harm severity: 1) no harm or temporary harm requiring monitoring, and 2) serious potential harm comprising; temporary harm requiring intervention, permanent harm, and potential death. Case studies were prepared for patients where errors were: a) categorised as having serious potential harm; and b) there was evidence that the error reached the patient. A multi-disciplinary panel reviewed these cases studies to determine whether patients had experienced actual harm from the error(s).

Results: The panels reviewed 173 case studies (378 errors) and identified actual harm in 22 cases (comprising 42 errors) with actual harm severity ratings of minor (n=8), moderate (n=13) and serious (n=1) harm, with none designated as severe harm (i.e resulting in permanent life-threatening harm or death). No harm was found in 330 errors and six errors were rated un-assessable due to a lack of information in the medical record. Patients were significantly ($p<0.05$) younger in the harm group (median 5.1 years) than the non-harm group (median 9.7 years). There was some evidence that errors were detected during admission (n=11/22 cases) but only one case resulted in an incident report. The main error types resulting in harm were dose errors comprising overdoses (n=10/22 cases) and underdoses (=9/22). However wrong route was the most common error type when analysed on an error rather than case basis (n=18/42 errors) due to patients being prescribed multiple drugs orally when they had a feeding tube. The most common medication groups involved in actual harm were antibiotics (n=7/22cases), and hypnotics and sedatives (n=6/22cases).

Image:



Conclusion: The difference in potential and actual harm, and the significant age difference between patients identified as harmed or not harmed by a prescribing error, are critical findings in terms of ensuring that error mitigation efforts accurately target the populations most at risk of actual harm.

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Disclosure of Interest: None Declared

ISQUA2024-ABS-3565

O. Eskil Cicek^{1*}, Z. Akgun Cihnioglu¹, F. Aytekin², G. Kanturk², M. Erkiran³

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Introduction: Although there is a growing body of literature in terms of patient and physician satisfaction regarding the transition to electronic medical record, there are few studies in the field of psychiatry clinic. Patient safety and the impact of patient-physician relationship is one of the main concerns about the transition to electronic medical record transition.

Methods: In our hospital, the transition to electronic medical records in the child psychiatry clinic was carried out together with child psychiatry clinicians, the informational technology department and technical services in the outpatient clinic, emergency and health board procedures under the coordination of hospital management. .Due to the concern that the electronic medical record might affect the patient-physician relationship, computer screens were embedded in the tables with a special design so that eye contact between the patient and the doctor is not prevented. The information that should be on the screen was determined after the meetings with the physicians, and the forms were integrated into the Hospital Information Management System (HIMS). 16 scales, 10 physician information forms and all nursing forms used by child and adolescent psychiatry during the transition to practice were integrated into HIMS. The scales filled in by psychologists were defined as HIMS and they could be viewed on physician screens. The transition to the electronic registration system was evaluated with the questionnaire obtained through the literature review. A questionnaire was shared with 48 resident physicians and 12 child and adolescent psychiatrists. The questionnaire was filled out by 21 (43.75%) resident physicians and 7 (58.33%) child and adolescent psychiatrists.

Results: It has been determined that 86% of the physicians participating in the survey are satisfied with the transition to the electronic medical record. 89% of clinicians reported that the electronic medical record system effectively enhanced communication among healthcare professionals. According to a survey, 57% of clinicians report that the electronic medical record system offers a more comprehensive record of the patient's psychiatric history and examination findings, whereas 36% only provide a partial record.

Image:



Conclusion: This study is one of the few studies available in the existing literature in the field of psychiatry. While electronic medical records are a cause for many concerns, affecting patient-physician relationship, is one of the main barriers. The burial of the screens on the table has reduced the effect of the computer screen, which is believed to impede the patient's communication with the doctor. It is believed that the study and the electronic medical record transition project are important in this context, and that it could be the basis for advanced studies in electronic medical record transition in psychiatric clinics.

References: (1) Stewart et al. Do electronic health records affect the patient-psychiatrist relationship? A before & after study of psychiatric outpatients BMC Psychiatry 2010, doi: [1186/1471-244X-10-3](https://doi.org/10.1186/1471-244X-10-3)

(2) Patel et al. Clinician Perspectives on Electronic Health Records, Communication, and Patient Safety Across Diverse Medical Oncology Practices Journal of Oncology Practice Volume 15, Issue 6 335 DOI <https://doi.org/10.1200/JOP.18.00507>

Disclosure of Interest: None Declared

Implementation of patient flow-based electronic clinical pathways (ECP) for patients presenting with HIP fractures in emergency departments: (2809) Ricardo Sampaio Paco

ISQUA2024-ABS-2809

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Introduction: St. James's Hospital is involved in the Irish Hip Fracture Database (IHFD) Audit, which is overseen by the National Office of Clinical Audit (NOCA). This audit helps to prioritize and define quality improvement strategies for patients with hip fractures in accordance with the IHFD Standards set by NOCA. A team called the Hip Fracture Multidisciplinary Clinical Governance oversees patient care and provides guidance to enhance compliance with the IHFD standards. Compliance with the IHFD standards was within the national average, except for Standard 1 (Admission to an orthopaedic ward within 4 hours of presentation to ED). To improve outcomes and increase compliance with the IHFD standards, the team launched a project called "Code Hip". During phase 1 of the "Code Hip" project in 2018, compliance with Standard 1 increased from 4% to 50%. However, due to Covid-19, the ability to maintain the implemented changes was affected, leading to decreased compliance with the Irish Hip Fracture Standards back to 4%. Therefore, a need for another improvement cycle became imperative, and thus, "Code Hip 2.0" was designed.

Methods: We combined design thinking and agile methodologies to create a structured and patient-centred framework for refining electronic care pathways for hip fracture patients. We use Whiteboard, a patient flow management software, to manage care pathways. We extended the current E.D. Whiteboard by incorporating the new Code Hip electronic pathway. We shaped the prototype artefact during the Alpha phase and refined it through feedback given during weekly meetings. We released a more polished version of the prototype to all users during the Beta phase.

Our core design principles for the IT solution are:

1. Data integration with care pathway identifiers
2. Customized interface for a defined number of care pathways (initially hip fractures)
3. Real-time triggers for orders and actions related to the patient journey

Results: The implementation of Code Hip 2.0 at St. James's Hospital has significantly improved compliance with Standard 1 for hip fracture management. In July 2023, the hospital achieved 100% compliance, and the high sustainability of this success has been maintained since then. Several key developments have led to this success:

1. Standard 1 Compliance and Sustainability: Data shows that compliance with Standard 1 has been continuously improving from January 2023 (30%) to January 2024 (91%). The overall duration of patients' stay in the Emergency Department (ED) has notably reduced.

2. Pre-Configured Order and Process Completion Triggers: A new system with both automated and manual inputs has been introduced. This system enhances the patient's journey from arrival to admission by triggering appropriate care pathways and enabling real-time updates between departments.

3. User-Friendly Electronic Interface: The development of an easy-to-use interface for managing hip fracture patients streamlines task completion and provides organization-wide insights into the patient's progress.

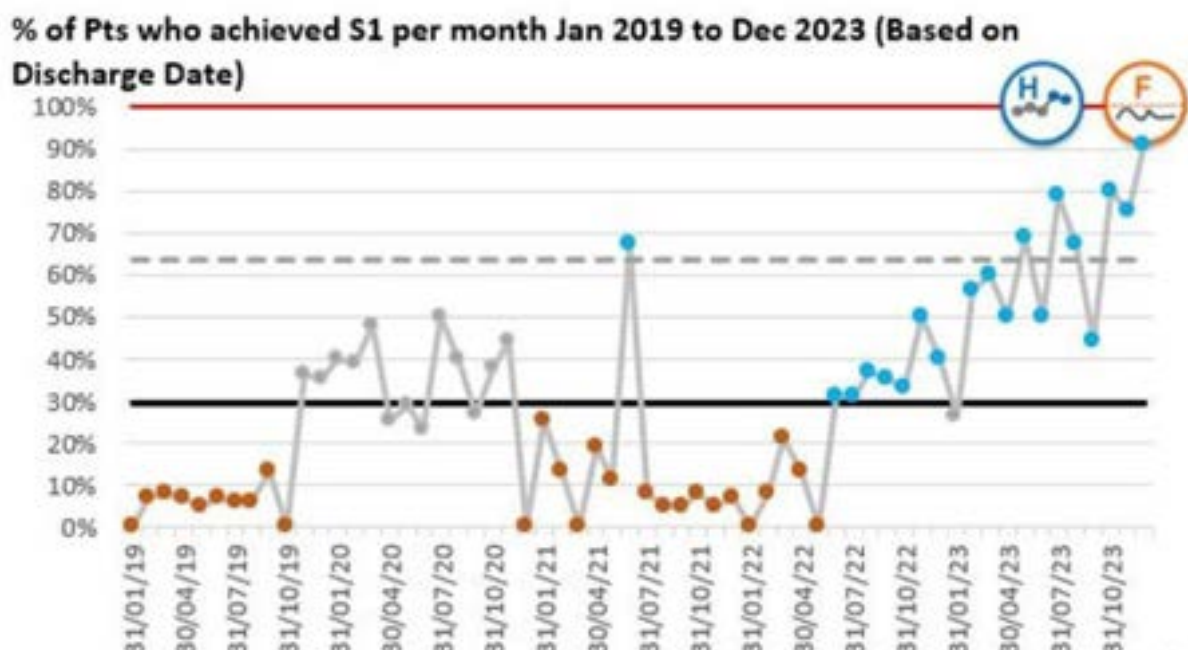
4. Real-Time Monitoring and Discussion of Non-Compliances: The system allows for immediate monitoring and discussion of any process non-compliance, facilitating quicker adjustments and continuous improvement.

5. Active Management of Care Pathway Tasks: The system supports a "pull" mechanism from the ward to expedite patient transfer from the ED. This enhances efficiency and patient experience.

6. Ease of Reporting and Reduced Audit Workload: Real-time access to data reduces the effort required to prepare reports and enhances the ability to monitor compliance and manage the patient care pathway effectively.

Overall, Code Hip 2.0 has transformed hip fracture care at St. James's Hospital by integrating digital solutions to streamline processes, improve compliance, and enhance patient care outcomes.

Image:



Conclusion: Despite global health improvement efforts, inefficiencies still adversely affect health outcomes and quality of life, a situation expected to deteriorate with demographic shifts. Recognizing the importance of enhanced information through investment in ICT for healthcare strategies, the CodeHip project was initiated at St. James's Hospital. It aimed to enhance outcomes for hip fracture patients by increasing compliance with the Irish Hip Fracture Standards. Initially, Code Hip improved compliance with Standard 1 from 4% to 50%, but faced setbacks due to COVID-19, leading to reduced compliance. Code Hip 2.0 focused on improving process resilience and utilized an agile methodology to adapt to changes and feedback, achieving 91% compliance at one point and aiming to maintain at least 90% compliance.

This success was attributed to exceptional leadership, team engagement, and the use of advanced digitization, providing a comprehensive view of the patient journey and facilitating quick, informed decision-making. The initiative demonstrates the potential for digital transformation in healthcare, with aspirations to expand this approach to other clinical pathways in the emergency department, suggesting a scalable model for broader healthcare system improvements.

Disclosure of Interest: None Declared

Ambulatory Medication Reconciliation: A tool to improve patient safety and minimize medication errors: (2027) Salma Al Khani

ISQUA2024-ABS-2027

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Introduction: Ambulatory Medication Reconciliation: The process of creating and ensuring the most accurate and up to date list possible of all medications the patient is taking, including drug name, dosage, frequency, and route. then and comparing that list against the previous physician's discharge orders, and/ or previously prescribed medications in the ambulatory care setting as applicable with the goal of ensuring correct medications to the patient.

In King Faisal Specialist Hospital & Research Center, the **Medication Reconciliation Process** policy is mainly related to the inpatient setting. Admission & Discharge and does not include ambulatory medication reconciliation

Significant number of medication prescribing errors were reported in the hospital safety reporting system. Investigating these errors revealed that these errors are mainly related to a failure in reviewing and reconciling the ambulatory active medication list in the patients' electronic medical record profile

Several studies were discussing the ambulatory medication reconciliation impact; Turchin et al, in 2018 concluded that a higher fraction of reconciled outpatient diabetes medications was

associated with a lower frequency of ED visits and hospitalization, they concluded that a higher fraction of reconciled outpatient diabetes medications was associated with a lower frequency of ED visits and hospitalization.

In addition, The Joint Commission recognized the importance of this and included this as a National Patient Safety Goal

Ambulatory medication reconciliation will help in achieving the following: 1- Systematic view and review for active patient's medication list, 2- Minimize duplication of therapy.

Under this project, Medication reconciliation in the ambulatory care setting were added as mandatory requirement to the hospital policy and to the Physicians' medication prescribing training module

Our project is aiming to establish the ambulatory medication reconciliation with the following objectives:

1- Increase the overall hospital compliance with ambulatory medication reconciliation from the project baseline by at least 10 folds in 12 months from starting the project; i.e. to reach a compliance rate of 40%

2- Deliver at least 20 educational sessions to the different hospital medical departments

3- Present the compliance data in the hospital medical affairs quality directors meeting on a monthly basis

Methods: The project implementation went into three phases:

Phase I

1- Formulate the project multidisciplinary team

2- Review the current hospital policy for medication reconciliation to include and ambulatory medication reconciliation,

3- Identify and implement possible system enhancement

4- Develop physician's education material

Phase II

1- Develop implementation compliance indicators, design compliance report

2- Conduct a training campaign

Phase III

1- Monitor compliance with continuous support

2- Provide periodic report to the hospital leaders and departments chairpersons and quality directors

First Year Project target: is 40% compliance rate

Results: Over the first five months

1- Around 21 training session were delivered to different medical departments, these included big medical departments and some session provided specifically to sections under bigger departments

2- The Data were presented in the medical quality directors meeting on a monthly basis, five presentations were starting August – December 2023, this will continue until August 2024

3- Overall hospital monthly compliance were improved in the first five months from 4% - 24% between August to December 2023. Project team will continue to monitor till July 2024

4- Some departments had a significant compliance improvement example, Heart Center, and Medical Genomics.

Conclusion: Medication reconciliation in the ambulatory care setting is an effective tool to improve medication safety and minimize medication errors, well-structured training program, empowered by leadership support and ongoing compliance monitoring is key for a successful implementation.

References: Turchin et al, Ambulatory Medication Reconciliation and Frequency of Hospitalizations and Emergency Department Visits in Patients With Diabetes, *Diabetis Care*. 2018 Aug;41(8):1639-1645.

Meghan J. Hession University of Massachusetts Amherst, Best Practice Medication Reconciliation in the Outpatient Setting 2018,

Disclosure of Interest: None Declared

Insights from Adjudicated Complaints: Identifying Hot Spots and Blind Spots with HCAT: (2731) **Søren Fryd Birkeland**

ISQUA2024-ABS-2731

S. B. Bogh^{1,*}, S. M.-B. Hansen¹, M. Kring Clausen², L. Morsø¹, S. F. Birkeland³

¹OPEN, University of Southern Denmark, ²OPEN, Odense University Hospital, ³Department of Regional Health Research, University of Southern Denmark, Odense, Denmark

Introduction: Systematic analysis of patient complaints has the potential to improve healthcare quality by pinpointing prevalent issues or situations linked to dissatisfaction. The Healthcare Complaints Analysis Tool (HCAT) offers a structured approach to characterize patient complaints. HCAT has identified both hot spots and blind spots from the patient's perspective, irrespective of healthcare providers' decisions, providing valuable insights for enhancing care quality. A patient complaint requires a settlement, but HCAT has not been used to explore complaint patterns between cases resulting in criticism and those without criticism. This study aims to fill this gap by investigating disparities in the most notable "hot spots" concerning harm between these two groups. Understanding such discrepancies can shed light on potential areas for improvement in healthcare delivery.

Aim:

To examine disparities in the most notable "hot spots" concerning harm between cases resulting in criticism and those without criticism.

Methods: The HCAT taxonomy organizes data into seven problem categories, and 38 sub-categories, assessing severity, overall harm and stage of care. Applying the HCAT on all patient complaints and compensation cases from a Danish University hospital (approx. 9.800 cases) in a period of five years and subsequently comparing areas of hot spots (harm and near misses) for accepted and non-accepted cases. Harm hot spots denote complaints categorized as major or catastrophic harm, while Near-miss hot spots encompass cases of high severity with minimal or minor harm. We used proportional reporting ratios (PRRs) to measure the disproportionality of the problem. For a signal to be relevant in an area of interest, the following criteria should be met: the lower limit of the 95%CI of the PRR should be >1 , and a number of observed cases should be ≥ 20 . The signals were ranked according to excess reporting (expected-observed complaints), and only the top three are presented.

Results: We have applied for access to the data regarding case decisions, which has been granted; however, we are still awaiting its receipt. In the interim, we have included data from a smaller, nationally representative sample of patient complaints to provide an initial insight into our study's scope and potential outcomes.

In this national sample, we analyzed 1,933 hospital patient complaints, with 18% ($n=350$) resulting in criticism toward either the provided healthcare services or specific health professionals. These complaints encompassed 4,899 distinct problems, with a higher proportion of quality or safety issues evident in criticism cases than non-criticism cases. Please see table 1 for the distribution within the HCAT categories. Notably, within the non-criticism sample, the most notable excess reporting occurred in quality problems during the procedure stage (PRR 1.52, 68 cases more than expected), followed by safety problems during examination (PRR 1.44, 60 cases more than expected), and institution-related issues during discharge (PRR 3.0, 20 cases more than expected). Conversely, in the criticism sample, only two categories met the criteria: safety problems during examination (PRR 1.36, 20 cases more than expected) and quality issues related to ward procedures (PRR 1.41, 13 cases more than expected).

Image:

Table 1

Problem Level		Non-criticism N=3,963	criticism N=936	p-value
Problem	Quality	1,039 (26.2%)	273 (29.2%)	0.036
	Safety	1,019 (25.7%)	270 (28.8%)	
	Environment	154 (3.9%)	39 (4.2%)	
	Institution	476 (12.0%)	95 (10.1%)	
	Listening	389 (9.8%)	86 (9.2%)	
	Communication	446 (11.3%)	91 (9.7%)	
	Rights	440 (11.1%)	82 (8.8%)	
Stage of care	Admission	287 (7.2%)	61 (6.5%)	0.081
	Examination	1,222 (30.8%)	317 (33.9%)	
	Ward	1,100 (27.8%)	267 (28.5%)	
	Procedure	870 (22.0%)	182 (19.4%)	
	Discharge	270 (6.8%)	73 (7.8%)	
	Unknown	214 (5.4%)	36 (3.8%)	
	Low severity	970 (24.5%)	162 (17.3%)	
Severity	Medium Severity	1,862 (47.0%)	431 (46.0%)	<0.001
	High Severity	1,131 (28.5%)	343 (36.6%)	
Complaint Level		N=1,583	N=350	
Harm	Minimal	385 (24.3%)	50 (14.3%)	<0.001
	Minor	131 (8.3%)	18 (5.1%)	
	Moderate	216 (13.6%)	43 (12.3%)	
	Major	345 (21.8%)	96 (27.4%)	
	Catastrophic	207 (13.1%)	60 (17.1%)	
	None/unknown	299 (18.9%)	83 (23.7%)	
Number of problems in the complaint	1-2	956 (60.4%)	187 (53.4%)	0.11
	3-4	388 (24.5%)	98 (28.0%)	
	5-7	175 (11.1%)	48 (13.7%)	
	+8	64 (4.0%)	17 (4.9%)	

Data are presented as n (%).

Conclusion: Though, it is not possible to conclude on the material not received yet, we can conclude, based on the material analyzed, that analyzing patient complaints using a data-driven approach can help identify areas for improvement. Criticism cases primarily highlighted quality issues related to ward procedures and safety problems during examination. The latter was also a hot spot for non-criticism cases, suggesting a need for targeted interventions to address this area of concern.

We want to emphasize that should our application be accepted, the conference presentation will feature additional material, including compensation claim cases, which may yield different results and further enrich the discussion and findings of our study.

Disclosure of Interest: None Declared