

INFECTION PREVENTION AND CONTROL

Understanding what creates value

There is a great deal of discussion about the differences between the truth and the norms of health service delivery that are generally accepted but wrong. In the book by Jules Goddard and Tony Eccles, *Uncommon Sense, Common Nonsense*, we can find these differences very clearly. The authors point out that all companies have a set of beliefs that are accepted as evident by the participants in these services. Some of these beliefs are true (common sense) and others are false (common nonsense).

In many cases, false beliefs, they were once true beliefs. But these truths become obsolete as technology is applied or markets advance. After long years, there were important socio-cultural changes that influenced the environment and the new work forces. While it is expected that a health professional will leave their qualification trained in basic safety procedures such as the correct use of PPE and the valuation of this practice, let us have the reality that many health professionals enter the job market with a low evaluation and without that knowledge as part of their routine. It is then up to the companies, the responsibility to provide such capacity, even if basic, but demand the integrity of the patient, the health professional, and the institution.

For a long time, the way of learning within health institutions has been discussed and how this learning is absorbed. Communication and creativity are fundamental factors in the transfer of information, while considering clarity and objectivity in communication.

Nowadays it is necessary to consider the way these truths are imposed in the work environment. It is not enough to only provide PPE to professionals and train them to comply with the legislation. It is necessary to raise awareness and make the importance of what you seek be understood.

The Use of PPE in Health Services

Before Pandemic

Historically, the infections prevention and control began with the history of medicine through the struggle for survival. However, it was only from the 19th century that remarkable discoveries took place, important for the prevention of infections. Throughout this century, it was realized that the lack of safety in relation to some uncontrolled risks, could cause damage such as infections, contamination, and accidents. Thus, the first recommendations for the use of Personal Protective Equipment (PPE) and care about hygiene and cleaning emerged.

In Brazil, the regulation of the use of PPE began in the 1970s, when there was a change in the “Consolidation of Labor Laws” (CLT) regarding occupational safety and medicine and the Regulatory Norms (RN) were approved. It became clear that safety in the workplace requires diverse measures to reduce occupational risks. Protection measures were considered one of the main ways of preventing exposure and the appropriate use of personal protective equipment to considerably minimize risks.

For the health area, additional precautions are required to protect these professionals. It has been known for years that no PPE will provide safety to health professionals if not used properly. In Brazil, all training courses in the

health field, whether technical or undergraduate, teach about the use of PPE, its importance, ways of placement and removal.

Personal protective equipment is a fundamental tool for preventing accidents, however, among health professionals there is great resistance to its proper use (common nonsense). The low adherence to the use of personal protective equipment and its incorrect management, derive from factors such as discomfort, inconvenience, carelessness, forgetfulness, lack of habit, inadequacy of the equipment and disbelief in use.

The adoption of measures to sensitize the professional as to the importance of use and to sustain this practice has been a challenge. Studies show that health professionals are disinterested or even resistant to the use of PPE, as they are not aware of the risks they are exposed to.

Knowledge about the importance of use is not transformed into safe actions for the prevention of accidents and occupational diseases, which marks the need for more effective actions to change this reality.

During Pandemic

The COVID-19 pandemic shows us, in an uncomfortable way, the teams' failures in the use of PPE. When the World Health Organization (WHO) alerted the world to a serious and growing concern about the global supply of PPE, linked to the significant increase in people infected with the new Coronavirus SARS-CoV-2 and possibly also driven by the excess of information misunderstood and panic of the professionals, the health institutions decided to increase the stocks of these materials and their use started irrationally.

During pandemic, an area that became prominent again within health institutions was that of biosafety, which by definition is a set of rules and

measures capable of preventing, controlling, reducing or eliminating risks arising from activities that may compromise health and the environment.

The spread prevention of diseases between health professionals and patients is linked to a series of measures of which we also have the correct and effective use of PPE (common sense). It is worth mentioning that other factors must be considered, such as technical requirements to guarantee the effectiveness, quality of the products purchased, training of health professionals to know the indication of use, correct and rational use, dressing and de-dressing, proper disposal, evaluation of the degree of knowledge of the employee and the performance of safe acts.

PPE, previously ubiquitous and disposable in the hospital environment, has become a scarce and precious asset. Although there was an imminent possibility of a pandemic, signaled some time ago, the companies that manufacture these materials have failed to align production with consumption. From that moment on, buying such inputs was not only difficult, but quite expensive. It is worth mentioning that we are faced with another problem, since the manufacture of this equipment was concentrated in a few countries.

When appropriate use significantly reduces the risk of transmission, other concerns arise, such as the increased risk of contamination of professionals, associated with an inadequate number of beds, equipment, insufficient amount of laboratory tests, restrained demand for tests to be carried out. released and the concern about the collapse of the health system. In the midst of chaos, we came across several reports from professionals who took desperate measures to “contain” the shortage of PPE, such as the reuse of these materials, not drinking water and using disposable diapers throughout the work shift, everything this so that the equipment was not lacking for the next shift.

What is perceived in this pandemic is that nothing new has emerged, whether it be related to new products or even to recommendations on their use. Everything that is known about its use has been taught for years in training courses and within institutions. The great barrier is the carelessness with which these equipments were used by health professionals, who placed and removed them in any way, without worrying about the risks involved, but who, faced with this new reality, realized that when used ineffectively, it compromises much to the health of themselves, their families, and the safety of the patients.

Changes are already noticeable in the workplace, some of which are negative, such as pressure and work overload, fear, and stress. However, positive changes, such as the intensification of hand washing, frequent cleaning of the environment and adequate and rational use of PPE are noted. Have managers and professionals really learned the real need and importance of these practices and will they maintain them in the future?

Post Pandemic

According to Charles Duhigg, in his book *The Power of Habit*, “it is the longings that drive habits. Finding out how to create a longing makes it easier to create a new habit. This is as true today as it was almost a century ago.”

The pandemic shows us that the dangers can be hidden by the lack of knowledge or information. It will be up to the health professional to continue seeking knowledge, show interest in learning, in addition to sharing, discussing with colleagues about the doubts of the work team, anxieties associated with risks when attending patients.

Within this context, it will be necessary to develop new technologies to produce PPE that are not only safe and functional, but that are, above all,

comfortable. We cannot forget the facial injuries left by the prolonged use of the N95 mask. We believe that professionals will seek more information in relation to biosafety practices, that the practice of hand washing and the use of alcohol gel will become a permanent habit for health professionals, as well as for the entire population, and that everyone will understand that biosafety it is comprehensive, because it is about the life safety.

In addition, the professional degree of knowledge who oversees the activity must be considered. That will be the main question ... It will be necessary to create more standardized protocols for the use of PPE and implement an innovative education model. We believe that the communication process will also change, alternative and more linear ways of transmitting information will be found, and that technology will certainly be our greatest ally.

We hope that the organizational and managerial structure will continue to collaborate and encourage decision-making regarding the use of personal protective equipment, to eliminate barriers and beliefs inherent to its use. The employer and employee's commitment to safety and the appropriate use of PPE must be strengthened.

We believe that the pandemic will make everyone leave the comfort zone, rethink their beliefs, develop new skills and, above all, value human relationships. The pandemic experience must serve to build a new understanding of the responsibility of each one in the collective result. And about the need to develop products with greater acceptability.

Health professionals and other employees need to understand their role in protecting clients / patients, their colleagues and, above all, in self-protection and the protection of their family. Managers need to align with this need and

ensure adequate supply. And the industry needs to respond to these new concerns.

It is worth recalling the famous phrase by Peter Drucker: *“Culture eats strategy for breakfast”*.

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