3. RECOMMENDATIONS FOR HOSPITAL TREATMENT

1. Before prescribing antiviral drugs (14, 20), verify drug-drug and drug-disease interactions, pay particular attention to oral anticoagulants that could be substituted by low molecular weight heparin.

2. Be aware that the association of chloroquine/hydroxychloroquine and macrolides may trigger fatal arrhythmias by prolonging QT interval.

3. Angiotensin-converting enzyme (ACE) inhibitors and angiotensin II receptor blockers (ARBs) are safe and should not be discontinued during Coronavirus epidemics (21).

4. There is no proof that ibuprofen can aggravate COVID-19 clinical picture and the European Medicines Agency is monitoring this issue (22).

5. Start oxygen therapy at 5 L/min and titrate flow rates to reach SpO2 ≥90% in non-pregnant adults and SpO2 ≥92-95% in pregnant patients (2).

6. High-flow nasal oxygen (HFNO) or non-invasive ventilation (NIV, mainly c-PAP) should only be used in selected patients with hypoxemia, respiratory failure (P/F next to 300 for HFNO and 250-300 for NIV), but with alerts and with preserved ventilator dynamics. Monitor closely for clinical deterioration (7, 23).

7. Do not prolong HFNO or NIV for over 2 hours in the case of failure to improve (HFNO: respiratory rate ≥24/min, NIV: respiratory rate ≥28/min and/or worsening P/F for both) (7, 23).

8. Avoid nebulisation therapies for the potential spread of bacteria (24).

9. Administer intravenous fluids only if needed and avoid steroids, unless for other indications.

10. Assess thromboembolism and bleeding risk of every patient and provide appropriate thromboprophylaxis.

11. The respiratory rate, peripheral oxygen saturation (SpO2) and arterial blood gas analysis results must be monitored closely during hospital stay due to insidious presentation of severe hypoxemia in this disease. Intra-arterial radial catheters insertion is to be considered to reduce arterial punctures, even outside ICU.

12. Also monitor white blood cells, lymphocytes and platelets count, LDH, procalcitonin and d-dimer are considered alarm flags (13, 15, 17).

13. Be aware of an eventual development of severe form +/- 7 days after symptom onset (13).

14. If a patient reports a SpO2 ≤90% in free air or ≤92% in conventional oxygen therapy and/or presents ≥30 acts/min and/or severe respiratory distress, intensive care therapist consultation must be required (25).

15. Use biosafety precautions when handling oxygen therapy devices (23); cover the patient’s face with a surgical mask during HFNO or C-PAP (23); to reduce the risk of aerosolization:
   a. possibly use a dual or single circuit non-invasive ventilator with an integrated expiratory valve and an helmet that allows to insert a filter as interface (7).