**COVID-19: ICU FOR NON-INTENSIVIST**

**INFECTION CONTROL**
- Hand hygiene before and after all patient encounters and when changing PPE
- Use airways, contact, and droplet precautions for patients with confirmed COVID-19
- Use N95 respirator or PAPC/CPAP
- Eye protection, preferably a face shield
- Gloves & gowns
- N95 respirators or PAPC/CPAPs must be used for all aerosol-generating procedures, including:
  - Endotracheal intubation
  - Deep suctioning
  - Bronchoscopy
- Suction’s ventilation
- Chest compressions
- Chest physiotherapy
- Patients should be placed in negative-pressure rooms, as able, or in geographic cohorts, if necessary
- Minimize aerosolizing procedures whenever possible

**INTERVENTIONS FOR DIFFERENT DISEASE**

**INITIAL LABORATORY WORK-UP**
- CBC or differential
- BMP, Mg, Phos
- PT/PTT, ferritin
- LDH, CRP, D-dimer, procalcitonin
- Thrombocytopenia
- BMP, Mg, Phos
- PT/PTT, ferritin
- LDH, CRP, D-dimer, procalcitonin

**COVID-19-SPECIFIC MEDICATIONS**
- Dexamethasone 6 mg IV PO q24h for up to 10 d
  - Mortality benefit seen in hypoxic patients, including those on non-invasive ventilation
  - Avoid in patients without hypoxemia (room air SpO₂ ≥ 94%)
- Remdesivir 200 mg IV loading dose, then 100 mg IV q24h for 5 d
  - Benefit greatest in patients receiving supplemental O₂ but limited in patients requiring mechanical ventilation
  - Shortest time to recovery but no apparent mortality benefit in most ICU patients
- Therapies with inconsistent evidence of benefit:
  - Interleukin-6 (IL-6) blockers
  - Cardiogenic vs septic vs vasodilatory
  - Monoclonal antibodies (ineffective in hospitalized patients, may have a role in high-risk outpatients)
  - Dexamethasone
  - Lopinavir-ritonavir

**RESPIRATORY**

**START PRONING patient early if PaO₂/FiO₂ <150**

**Respiratory escalation (Target SpO₂ ≥ 94%-96%)**

1. Nasal cannula
   - Up to 6 LPM
2. Vent mask: 9-12 LPM with Fio₂ 30%-60%
3. Trial IMPC if available: 100% to start at 20-30 L/min, up to 60 L/min flow
4. NIPPV: Trial CPAP or BiPAP with mask & filter EPAP 5 to start, can increase up to 15-20
5. If mental status deteriorates, hypoxemia or apnea develops, cardiac instability ensues, or patient has persistent profound hypoxia, trial intubation is likely next step

**Use lung-protective/ARDSnet recommendations**
- Total volume: 4-6 mL/kg predicted body weight
- Choose IR (15-20 breaths/min), increased to blood pH (not pCO₂)
- Avoid in patients without hypoxemia (room air SpO₂ ≥ 94%)

**COMORBIDITIES TO CONSIDER**
- Chronic lung diseases: COPD, lung cancer, cystic fibrosis, pulmonary fibrosis, moderate to severe asthma
- Chronic liver or kidney disease
- Diabetes
- Obesity
- Heart disease
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**HEMATOLOGIC**

**High incidence of thromboembolism and hypercoagulability**

- Suppressed prothrombin of all patients if no contraindications
  - If INR >3: 100 mg/kg anti-FXa
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**NEURO/SEDATION**

**High incidence of neurologic manifestations**

- Strobe can occur
- Combination of analgesia and sedation should be employed
- Daily sedation holiday is safe
- Patients should be evaluated to target improved oxygenation/ventilation
- Scoring systems such as the RASS should be employed

For greater detail, review the NIH treatment guidelines at https://www.covid19treatmentguidelines.nih.gov