



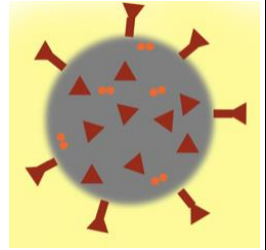
RUN THE LIST

ICU Management of COVID-19

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1. Need for ICU level care:

- **Common reason for needing ICU level care:** Acute hypoxemic respiratory failure. More than SpO₂ - includes hypoxemia, high work of breathing, dyspnea etc.
- **Decision to intubate:**
 - Balance between too early vs. too late.
 - Driven more by clinical picture (work of breathing, diaphoretic, accessory muscle use, patient trajectory etc.) than oxygen saturation
 - Intubation can often be prolonged, but this does not preclude good outcomes
- Remember the **importance of practicing humanism in medicine**, keeping family/loved ones informed

2. Management by Organ System

- Pulmonology:
 - Remember to keep a broad DDx beyond COVID-19!
 - **COVID Pneumonia/ARDS:** [similar range of physiologic parameters](#) (exp: compliance) compared to published ARDS cohorts with other underlying etiologies
 - Typical ARDS Management:
 - Low tidal volume ventilation ([ARMA](#))
 - Conservative fluid balance ([FACTT](#))
 - Proning ([PROSEVA](#)). Mechanism: helps V/Q mismatch
 - i. Relieves alveolar compression from thoracic/mediastinal structures
 - ii. Relieves over-distention of anterior alveolar units, as well as under-inflation/collapse of dorsal alveolar units
 - iii. Helps with distribution of blood flow
 - iv. Helps drain respiratory secretions and facilitate chest physiotherapy
- Cardiology: **Cardiomyopathy** is not common (~5% of patients), but can be severe
- Hematology: High rates of **coagulopathy** seen in COVID-19 (20-30%)
- Hepatology: **Hepatitis**, typically hepatocellular in pattern, usually not life threatening
- Nephrology: **Kidney injury** is common, placing stress on dialysis teams. Mechanism is incompletely understood

3. Antivirals: should be used in well-designed, well-run clinical trials

4. Other resources:

- Cardiovascular implications of COVID-19 from the [CardioNerds](#)
- Airway management for the non-intensivist from the [Curbsiders](#)
- [NephJC podcast series](#) on the intersection of nephrology and COVID-19
- Inpatient [goals of care](#) discussions & [Practical Tips](#) on COVID Floors from CoreIM
- The International Society on Thrombosis and Haemostasis [educational materials for COVID-19](#)
- [Review](#) of liver injury in COVID-19