

ARDS Definition:

- Bilateral non cardiogenic infiltrates/ edema
- **Mild:** Pao₂/Fio₂; ≤ 300
- **Moderate:** pao₂/Fio₂ ≤ 200
- **Severe:** Pao₂/Fio₂ ≤ 100

Ideal Mechanical Ventilation Settings

- Low tidal volume ventilation VT-4-8 mL/kg IBW(to minimize barotrauma, volutaruma)
- Plateau Pressure (end inspiratory) < 30
- Driving pressure= Pplat-PEEP <15
- Ideal PEEP < 15
- Avoid De-Recruitment; slow PEEP wean
- Permissive Hypercapnia is OK(pH~7.2)
- Do not titrate Low PEEP in APRV

Consider Negative Fluid Balance Goal, Recruitment maneuvers

COVID-19 ARDS and Vent Management

ARDS

PaO₂/ Fio₂ ratio ≤ 300

Initiate low tidal volume (Vt) ventilation (Vt 4-8 mL/kg of predicted body weight)

Adequate gas exchange o₂ sat greater than 88% on Fio₂ 70% and PEEP of 14 continue current therapy

Continued moderate to severe ARDS, pao₂/fio₂ ratio ≤ 150

Increase PEEP if persistently hypoxic with decreasing VT to avoid barotrauma. Goal peep is less than 15

Assess patient ventilator synchrony, if not synchronized after appropriate sedation and analgesia with RASS goal ≤ -3 add Neuromuscular blockade.

- Recommended as needed, intermittent boluses of neuromuscular blocking agents (NMBA) over continuous NMBA infusion, to facilitate protective lung ventilation.
 - In event the of persistent ventilator desynchrony, the need for ongoing deep sedation, prone ventilation, or persistent high plateau pressure suggest using continuous NMBA infusion for up to 48 hours

Prone trial for moderate to severe ARDS (16 hours prone and 8 hours supine) can be done for 3-4 days

If **adequate** gas exchange
continue current therapy

If **inadequate** gas exchange Consider alternate therapy with epoprostenol or ECMO