

INTERDISCIPLINARY COVID-19 VENTILATOR MANAGEMENT

Access the accompanying webcast at
sccm.org/covidventmanagement.



Optimizing Ventilator Settings

- The key to improving patient-ventilator synchrony is a balance between optimizing ventilator settings and judicious use of sedation.
- Isolate the type of asynchrony (e.g., early vs. late trigger)
- Although the use of inhaled pulmonary vasodilators has not been shown to improve mortality in ARDS patients, they can be used to improve oxygenation to buy time (as a bridge to other evidence-based therapies), or as salvage.



Pharmacology

- Apply best practices for to pain, agitation, delirium, insomnia, and sleep management
- Manage challenges created by drug shortages of analgesia and sedative agents
- Consider possible novel strategies for drug shortages (e.g., oral medications, ketamine)



Best Practices and Clinical Treatment

- Ventilator management best practices for ARDS apply to COVID-19 ARDS as well, including use of low tidal volumes, keeping plateau pressures < 30 mm Hg, and prone positioning for those with severe ARDS.
- When clinically needed, different tools can be used to optimize PEEP, including stress index, driving pressure, and esophageal manometry (with expertise).
- Ventilation mode selected is dependent on clinician comfort and individualized to each patient.
- Focus on driving pressure < 14 cm H₂O
- When clinically needed, there are different tools that can be used to optimize PEEP including stress index, driving pressure, and esophageal manometry (with expertise).
- Treat COVID-19-affirmed ARDS with high PEEP strategy: mean tidal volume of 6 mL/kg, and P_{plat} < 30 cm H₂O; trend toward individualized therapy
- Titrate PEEP using driving pressure