

MINI Series: “What If I Get Called In”...COVID Airway Management for the Non-Intensivist

Dr. Mizuho Morrison interviews Dr. Scott Weingart (founder of [EMCrit.org](https://emcrit.org) and Chief of the Division of Emergency Critical Care at Stony Brook University Hospital, NY) on the basics of COVID airway management. They discuss:

- “The big picture”: Why COVID airway management is different
- “When & how to escalate care”: HFNC, CPAP, Intubation
- “Keeping vent settings simple”
- “Ventilator alarms”: Vent troubleshooting
- “Society of Critical Care Medicine’s COVID Guidelines”: The bottom line for non-intensivists & Scott’s thoughts

Part 1 - COVID BIG PICTURE and ESCALATION of CARE

- **“The big picture”**: Why COVID airway management is different from others
 - Risk of aerosolization
 - Happy hypoxemia vs. crashing patients
- **“When and how to escalate care: HFNC, CPAP, Intubation”**: Let’s talk about set up of any of the above modalities
 - Proposed schema for respiratory support in COVID patients
 - Explanation of the algorithm for airway support
 - Nasal cannula
 - Non-rebreather
 - High-flow nasal cannula
 - CPAP
 - Intubation
 - Indications for each one and what makes you advance to the next?
 - How do you know when/why to advance to the next step?
 - Additional resources: <https://emcrit.org/emcrit/covid-airway-management/>

Part 2- COVID INTUBATION

- Before entering the room
 - PPE
 - Tools and set up (first pass and back up)
 - CPAP to preoxygenate
 - Medications: Rapid Sequence Intubation
 - Ketamine vs etomidate
 - Rocuronium vs. Succinylcholine
 - Video Laryngoscopy vs. Direct Laryngoscopy
 - Do I use my Bougie? Yes!
 - What about a BVM? Depends when!
 - Additional tools?
 - Plastic sheet or clear acrylic box? Only if it makes you comfortable
 - Technique pro-tips and trick
 - 21cm vs. 23 cm on men

- Additional resources: <https://emcrit.org/emcrit/covid-airway-management/>

PART 3: COVID Vent Settings (the basics) and Troubleshooting

- **“Keeping vent settings simple”: the basics**
 - Initial VENT settings
 - Mode volume: AC
 - Tidal Volume: 8ml kg ideal bw
 - Respiratory Rate: 16-18
 - FiO2 100%
 - PEEP 8
 - Lung protective strategy and the initial ventilator settings
 - [Initial Ventilator Settings reference card](#)
 - Additional resources:
 - <https://emcrit.org/wp-content/uploads/2010/05/Managing-Initial-Vent-ED.pdf>
 - https://emcrit.org/ibcc/COVID19/#invasive_mechanical_ventilation
 - <https://rebelem.com/benefit-lung-protective-ventilation-ed-lov-ed/>
- **“Ventilator alarms: the first minute”: VENT Troubleshooting**
 - Types of ventilator alarms: High pressure and Low pressure
 - High pressure: “DOPE” - Displaced, Obstruction, Pnths, Equipment failure
 - Low pressure: Leak in breathing circuit, Med-gas failure, Equipment failure
 - Troubleshooting algorithm: re-connect, fix kink, suction, adjust FiO2, give meds, plug vent in, re-intubate

PART 4: “SCCM’s COVID Guidelines: The Bottom Line for Non-Intensivists” & Scotts 2 cents.

- IVF- keep them dry
- Lasix - only if iatrogenically fluid overloaded... otherwise no
- Pressors - norepinephrine sooner than later if needed
- Steroids for covid refractory shock? Yes in those with multisystem organ failure
- Anticoagulation for inpatients

References

1. <https://emcrit.org/emcrit/covid-airway-management/>
2. <https://emcrit.org/wp-content/uploads/2010/05/Managing-Initial-Vent-ED.pdf>
3. https://emcrit.org/ibcc/COVID19/#invasive_mechanical_ventilation
4. <https://rebelem.com/benefit-lung-protective-ventilation-ed-lov-ed/>

Tags: Critical care, Emergency medicine, covid19