COVID-19 (SARS-CoV-2) – Managing the 1st Hour of Critical Care in the ED

EARLY ASSESSMENT

- ☐ Order RVP, COVID nasal swab with CXR
- ☐ Titrate SpO_2 to 92%-96% using nasal cannula
- ☐ May use albuterol MDI for wheezing
- ☐ If persistent SpO_2 < 92%, place NRB face mask
- ☐ AVOID BiPAP, CPAP, and HFNC*
- ☐ Start broad spectrum antibiotics
- ☐ Call ID for rapid COVID test

*NOTE: HFNC up to 20 LPM/60% with droplet mask, NIV for hypercapnia or chronic use can be considered in negative pressure room.

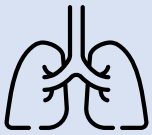
EARLY INTUBATION

- ☐ Prepare to intubate quickly, (can call "Anesthesia STAT to ED" if resources overwhelmed).
- ☐ Notify Pharmacy for RSI Pack
  - Rocuronium 1.2 mg/kg
  - Etomidate 0.15-0.3 mg/kg
  - Phenylephrine: 100 mcg prn hypotension

- ☐ Controlled intubation with appropriate PPE **in negative pressure room** (if patient can tolerate being moved)
- ☐ Use colorimetric/waveform $EtCO_2$, viral filter
- ☐ Do NOT ventilate until cuff is inflated
- ☐ Intubation team should place orogastric tube
- ☐ Obtain post-intubation CXR, EKG (for myocarditis), and labs

MECHANICAL VENTILATION

- ☐ ARDS protocol with moderate-high PEEP
- ☐ MODE: Start with AC/VC
- ☐ TV: 4-6mL/kg IBW
- ☐ PEEP: 12-14 cm H_2O
- ☐ Obtain ABG 30 minutes after intubation

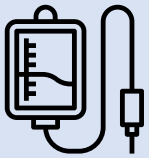


Targets

- ☐ Plateau pressure ≤ 30 cm H_2O
- ☐ Driving pressure (Pplat – PEEP) ≤ 15 cm H_2O
- ☐ Titrate FiO_2 for SpO_2 92-96%

STABILIZATION

- ☐ **Monitoring**: Insert **arterial line** and **central line** for vasopressors and blood draws as soon as possible; Right radial a-line and right IJ CVC preferred (proning); Foley catheter



- ☐ US for volume status & cardiac function
- ☐ Start norepinephrine for MAP 60-65 mmHg
- ☐ Start vasopressin if NE > 10 mcg/min
- ☐ For refractory/cardiogenic shock, add epinephrine or dobutamine
- ☐ SEDATION: Fentanyl/propofol infusion
- ☐ Hydrocortisone (100 mg q8h) if escalating catecholamine requirement.

ESCALATION FOR REFRACTORY HYPOXEMIA

- ☐ Titrate FiO_2 to keep SpO_2 92-96%
- ☐ Increase PEEP to optimize driving pressure or use ARDSnet table
- ☐ Deepen sedation (add pressors if needed for hypotension)
- ☐ Paralytic if P/F < 150 (Bolus +/- drip)
- ☐ Discuss with MICU attending
- ☐ Consider Lung Rescue Team consult for ECMO

COMMUNICATION

- ☐ Closed loop communication is key
- ☐ Consider placing telephone with speaker phone in patient's room
- ☐ Consider using dry erase board inside & outside of room

- ☐ Consider Penn E-Lert early if anticipated delay in disposition (215-893-7310)

CARE PRINCIPLES

- ☐ Limit healthcare worker contact
- ☐ Batch nursing orders when possible
- ☐ Limit unnecessary diagnostic testing

Penn Medicine

Version 1.2 (3/30/2020)