MedStar Clinical Guide for Management of Moderate to Severe Hypoxemia with High Flow Nasal Canula (HFNC) in Patients with Suspected and Confirmed COVID19 Infection

Please refer to StarPort COVID Page (or https://medstarhealth.org/covid19resources off network) for the complete and most current guidance as this information is rapidly changing and updated.

Definition:

- Patients who are unable to maintain resting O2 Sat >92% or RR <28 on non-rebreather mask with 100% FiO2 and 10-15 liters flow are considered to have moderate to severe hypoxia
- Patients with acute change in mental status, rapidly worsening respiratory distress, hemodynamic instability, acute kidney injury, are not good candidates for a trial of High Flow Nasal Canula Protocol

Staff Safety in HFNC Use:

- Due to risk of aerosolization, HFNC should be administered in negative pressure rooms whenever possible with staff using N95 masks
- *Patient should wear surgical mask or a tight fitted non-rebreather mask when using HFNC*

Management of Hypoxia:

- HFNC flow and FiO2 should be titrated to maintain O2 sat > 92%
- Patients should be monitored with continuous pulse-ox
- Patients with any of the following should be evaluated for immediate intubation or transfer to ICU:
    - O2 Sat <88% despite HFNC therapy
    - RR > 40 despite HFNC therapy
    - New or worsening altered mental status
    - Hemodynamic instability
    - Worsening acute kidney injury or oliguria

- Incentive Spirometry:
    - Provide patients with GCS 15 an incentive spirometer and patients should be asked to use of the device Q2 hours when awake. The patient should be asked to take 10 breaths with their assigned device. This schedule should be followed for the duration of the hospitalization.

Rescue Interventions to Consider:

- Awake Prone Positioning*
  - Patients with GCS 15 may be asked to lay on their chest (awake prone position)
  - Patients who remain in prone position with HFNC for at least 30 min and tolerating well can continue as long as tolerated
  - Turning from side to side may help improve symptoms and saturation
  - Patients should be encouraged to use prone position when sleeping
  - Sedative medications to assist the patients to achieve prone position should NOT be utilized

- Inhaled Epoprostenol
  - Administer inhaled epoprestenol for patients with P/F ratio or SaO2/FiO2 ratio of < 150
  - Epoprostenol should be discontinued if patient can be weaned off HFNC or if PF ratio is consistently > 300

*There is only observational evidence for the use of awake proning in patients with COVID19 and providers should consider risk and benefits of this intervention.