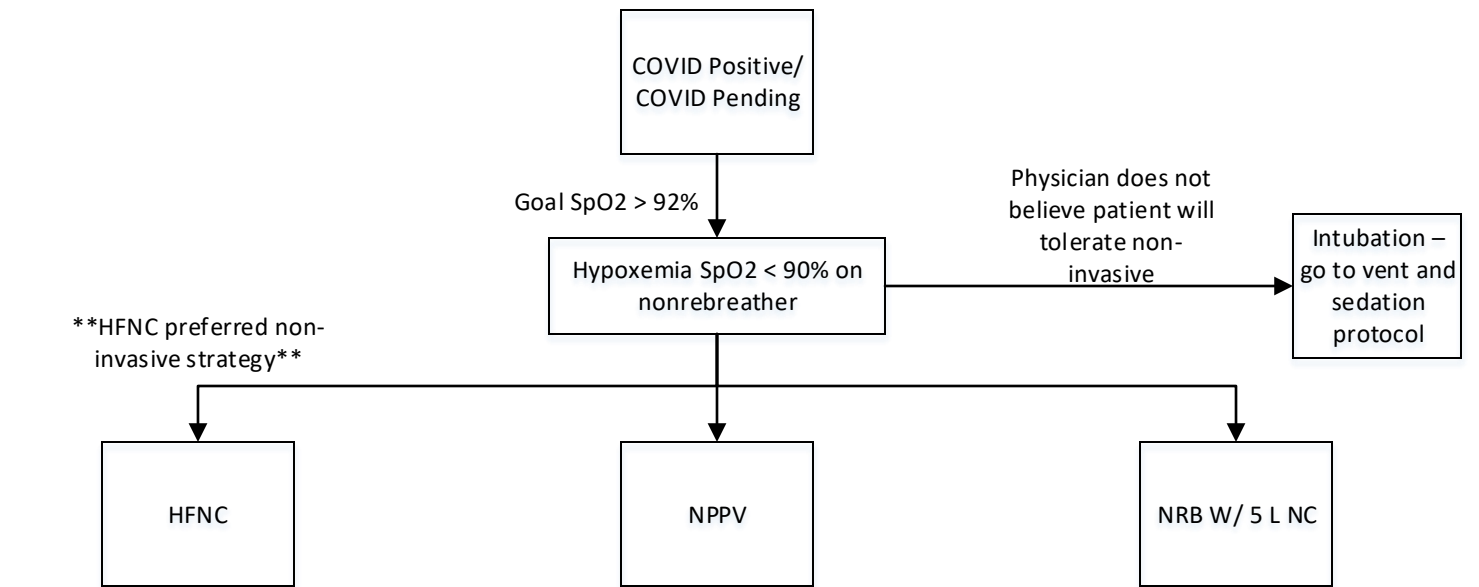


# Avera COVID-19 Acute Respiratory Failure Management Algorithm



## HFNC Management

**\*\*Place mask over HFNC to decrease aerosolization. Should be performed in negative pressure room. If not possible, use bedside HEPA filter if possible.\*\***

- Titrate FiO2 to keep SpO2  $\geq$  92%
- Titrate LPM to comfort and goal per protocol
- LPM should be titrated up with a maximum of 60 LPM as needed in order to achieve an SpO2 > 88%

## NPPV Management

**\*\*Should be performed in negative pressure room. If not possible, use bedside HEPA filter if possible. NPPV should be avoided if other alternatives are possible secondary to higher aerosolization risk. However this may decrease the risk of intubation in some patients. Attempt to place a mask over the CPAP/BiPAP mask.\*\***

- Titrate FiO2 to keep SpO2  $\geq$  92%
- CPAP should be trialed prior to BiPAP if possible
- Adjust for comfort and effect

## **\*\*Place mask over the NRB to decrease aerosolization.\*\***

When HFNC and CPAP are **not** available for patient on a nonrebreather w/SpO2 < 90%, a nasal cannula should be applied under the nonrebreather start at 5 L/min and titrate to a maximum of 10 L/min.

Requiring 90-100% FiO2 w/ SpO2 < 88%

Increased work of breathing and/or SpO2 < 88% on 90-100% FiO2 after 30 minutes of treatment

On NRB w/10 L NC w/SpO2 < 88%

## PRIORITY 1 – Considerations Prior to Intubation

**Proning** should be encouraged in all patients. Physician should be aware that proning appears to induce a **non-sustainable** improvement in SpO2. Proning should therefore be seen as “buying time” rather than “recruiting.” Monitor closely for the need to undergo intubation.

### Consider intubation:

- On maximal NRB W/ 10L NC/HFNC/NPPV with SpO2 persistently < 88%
- Increased work of breathing
- Anxiety, fatigue or somnolence/change in mental status
- Ventilator settings per ARDSnet protocol in the EMR: ICU Intubation Order Set
  - FiO2 100% and titrate to keep SpO2 > 92%
  - Tidal Volume 6-8 mL/Kg of ideal body weight
  - RR 14-16 bpm or to match the patient’s rate
  - PEEP initially 5-10 cmH2O and titrate based on ARDSnet PEEP tables
  - Target SpO2 > 88% (Goal 92-96%)
- Sedation per protocol in the EMR: ICU Intubation Order Set