

COVID-19 Patient Requiring >6L/min Oxygen via conventional nasal cannula (~ 40% percent oxygen) not requiring additional organ support

Goals of Care Discussion

Alternate Care Pathways

**High Flow Nasal Cannula Indications**  
Hypoxemic Respiratory Failure without significant hypercapnia  
Ideally Single System Disease

**High Flow Nasal Cannula Contraindications**  
Altered Mental Status  
Shock  
Anatomic Anomalies preventing use  
Immediate need for intubation

**High Flow Oxygen Challenge**  
One of the following depending on availability:  
1. NRB mask at 15 L/min  
• **\*\*OK to use ANY type of NRB mask – check with RT\*\***  
• Does not require staff airborne precaution PPE  
• No need to move patient to new area  
2. High flow nasal cannula (HFNC)  
• Arguably the optimal treatment (PEEP + High Flow)  
• Move patient to private room or high flow O2 area  
• Staff must don airborne precaution PPE  
3. CPAP/BiPAP (CPAP preferred to BiPAP)  
• Move patient to private room or high flow O2 area  
• Staff must don airborne precaution PPE  
• Utility and safety of BiPAP is controversial (minimal to no pressure support recommended)

Perform High Flow Oxygen Challenge (Approximately 1 Hour)

**ROX Index**  
ROX >4.88: Low Risk for intubation  
ROX 3.85-4.87: Increased risk for intubation  
ROX: 2.85-3.84: Significant Increased Risk of Intubation  
ROX < 2.85: Consider imminent intubation

Does the patient require immediate intubation or extra-pulmonary organ support?

Admit to Conventional ICU

Initiate High Flow Nasal Cannula  
40-60LPM  
FiO2 1.0  
Oxygen Saturation 90-96%

Is the Patient stable on High Flow Nasal Cannula?

High O2 Needs (>60%)  
ROX < 2.85 at any time point

Modest O2 Needs (<60%)  
ROX Index >4.88 at any time point

Modest O2 (<60%)  
ROX index 3.85-4.87

High O2 Needs (>60%)  
ROX index <3.47 at 6HRS  
ROX index <3.85 at 12HRS

ICU Bed Available?

Admit to High Flow Nasal Cannula Unit

**High Flow Nasal Cannula Unit**  
RN Ratio: Enhanced staff  
RT q4hrs plus PRN  
CCRT to assess each admission  
Continuous Saturation Monitoring (Remote or bedside)  
Remote Video when available  
ROX Index q2-4 hours

Notify MD if:  
ROX index falls below 3.84  
ROX index falls on 2 consecutive measures  
FiO2 increases by >10%

Wean Support as tolerated  
Wean HFNC flow to 30-40LPM and FiO2 below 40% before resuming conventional oxygen therapy.

Increased monitoring

ICU Bed NOT available. Closely Monitor.

Reassess q2-4hrs

ICU Bed Available

