Adult High Flow Nasal Cannula Protocol
For Patients with COVID+ Hypoxemic Respiratory Failure

December 2020
ADULT COVID HIGH FLOW NASAL CANNULA PROTOCOL

PURPOSE
A protocol for the titration of high flow nasal cannula (HFNC) in patients with acute hypoxemic respiratory failure due to COVID pneumonia and ARDS.

DESCRIPTION
A licensed Respiratory Care Practioner (RCP) in collaboration with the health care team, will be responsible for initiating, managing, and weaning a patient from HFNC with an MD/LIP order.

LOCATION
Initiation of HFNC will continue to be dictated by each delivery networks unit specific admission guidelines. It is strongly recommended that evaluation for ICU or SDU is made. Continuous pulse oximetry monitoring is required.

SAFETY
It is strongly recommended that patient wears a face mask over HFNC or resides in a negative pressure room. Staff to wear PPE per guidelines.

ACUTE INDICATIONS FOR HFNC
• SpO2 < 88% on at least 5L NC or requiring 100% NRB to maintain Sat >92%

CONTRAINDICATIONS
Conditions under which invasive mechanical ventilation is more appropriate than HFNC.
• Respiratory or cardiac arrest
• Hypotension requiring vasopressors
• Respiratory acidosis (PCO2 >50 with pH <7.34)
Provider order for HFNC – RT to start at 30 LPM, 100%

SpO2 @ goal?

YES

Decrease FiO2 in increments of 5-10% to 50%

SpO2 @ goal?

YES

Decrease Flow in increments of 5-10 LPM to 10 LPM

SpO2 @ goal on 50% and 10 LPM?

YES

Transition to standard NC @ 5 LPM

Continue standard O2 therapy, may supplement with 100% NRB with activity PRN

NO

Return to prior FiO2 and reassess in 1 hour

NO

Return to prior Flow and reassess in 1 hour

SpO2 @ goal?

NO

Increase Flow in 5-10 LPM increments to Max 50 LPM

SpO2 @ goal?

YES

May add NRB PRN

May add NRB continuous or does Patient exhibit RR >30, SpO2 <90% at rest, diaphoresis, AMS

In NRB continuous or does Patient exhibit RR >30, SpO2 <90% at rest, diaphoresis, AMS

YES

Consider Intubation (1)

Notes –

All Patients on any NC device are strongly encouraged to wear a face mask to minimize aerosol dispersion

(1) There is no role for non-invasive pulmonary vasodilators (INO or epoprostenol)
Oxygen Devices

High Flow Nasal Cannula

Oxymyzer

Standard Nasal Cannula
Oxymizer

- Nasal Cannula that conserves oxygen by allowing oxygen to accumulate in the reservoir while the patient exhales.
- Results in providing a higher fio2 when the patient inhales.
- Max flow is 5L for COVID+ & PUI.
- Weaned in 1L increments per pts ordered SpO2 goal.
- Can not be hooked up to humidification.
Non-rebreather use

- Turn the oxygen flow up to ensure that the reservoir bag does not collapse when the patient inhales.
- SHOULD NOT BE USED CONTINUOUSLY
- May be used for recovery prn for 15-20 minutes.
- If the patient can not remove the NRB after PRN use, escalate O2 support per the protocol and notify the covering provider.
VISION
Yale New Haven Health enhances the lives of the people we serve by providing access to high value, patient-centered care in collaboration with those who share our values.

MISSION
Yale New Haven Health is committed to innovation and excellence in patient care, teaching, research and service to our communities.

VALUES
- PATIENT-CENTERED: Putting patients and families first
- RESPECT: Valuing all people
- COMPASSION: Being empathetic
- INTEGRITY: Doing the right thing
- ACCOUNTABILITY: Being responsible and taking action