

COVID-19 Respiratory Care Procedures for Adult Services

Proposed modifications to Respiratory Care Procedures during the COVID-19 pandemic outline indications for the use and precautions required for different oxygen delivery/ventilatory assist devices (nasal cannula and face mask oxygen, non-invasive positive pressure ventilation (NIV) and mechanical ventilation) and standard procedures performed by Respiratory Therapy for patients in the following contact precautions categories:

1. Modified Contact/Droplet Precautions: COVID-19 **positive** patients and PUIs
2. Droplet or Airborne Precautions: COVID-19 **negative** patients or COVID-19 status **unknown** who require droplet or airborne precautions for other reasons
3. Contact Precautions and Standard Care (no precautions): COVID-19 **negative** patients or COVID-19 status **unknown** who require contact precautions or no precautions

Recommended conversion from nebulized to MDI delivery systems are outlined in detail in a separate reference (COVID-19 Emergency Therapeutic Interchange Reference)

PPE for PUIs and COVID-19 positive patients

- Aerosol generating procedures: **N95 and a face shield**. If available, a CAPR may be used as an equivalent **substitute**. Aerosol generating procedures outlined in this document include - intubation, extubation, non-invasive positive pressure ventilation, bag mask valve ventilation high flow nasal cannula > 6L/min, NT suctioning.

- NON-aerosol generating procedures: **Surgical face mask and a face shield**

| Current Practice | Pandemic Modifications |
|---|---|
| Modified Contact/Droplet Precautions (PUI and COVID-19 Positive) | |
| Nebulized Medication | <ul style="list-style-type: none">- MDI/DPI treatments only, non-intubated patients- No continuous nebs- Aerogen nebs for vented patients on <u>Critical Care ventilators</u> only* |
| Oxygen Administration - NC, face mask | <ul style="list-style-type: none">- Standard NC oxygen may be used- No Standard Nebulizers- NRB mask may be used short term but consider intubation: Surgical face mask over the NRB mask. N95/face shield or CAPR must be worn |
| NIV, including transport on NIV | <ul style="list-style-type: none">- Circuit with filter only - N95/face shield |
| Vents - N95/face shield | <ul style="list-style-type: none">- Dry (if possible) with HMEF or appropriate expiratory filter- Heated Wire with duoguard filter- Travel vents with HMEF |
| Transport | Standard NC up to 6lpm. Surgical face mask for all patients while transporting NIV BiPAP/CPAP with filtered circuit On Ventilator with filtered circuit NRB covered with a surgical mask! Do not use any other oxygen delivery device Filtered BVM device if intubated |
| Bag Mask Ventilation | Must be avoided if possible. If BMV cannot be avoided, a filter <u>MUST</u> be attached to |

| | |
|--|---|
| | the BVM. – N95/face shield |
| Intubation / Extubation | - CAPR if Available <u>OR</u> N95/ face shield must be worn |
| HFNC | - Consult with practitioner for necessity - N95/face shield Surgical face mask for all patients on HFNC |
| Sputum Induction | - NONE |
| Ventilator Suctioning | - In-line only |
| NT Suction | - Consult with practitioner for necessity, N95/face shield |
| Chest Physiotherapy / Vibratory Device | -Consult with practitioner for necessity - N95/face shield |
| MetaNeb / Cough Assist | - NONE |
| Bedside PFT | - NONE |

| Current Practice | Pandemic Modifications |
|--|--|
| Droplet, Contact/Droplet or Airborne Precautions for all other Differential Diagnosis | |
| Handheld Medication Nebulizers | - MDI/DPI only, non-intubated patients - HHN with Filter - No Continuous Nebs - Aerogen nebs for vented patients only* |
| Oxygen Administration – NC, NRB | - No Standard Nebulizers - Standard Practice - Surgical Face mask for all Patients on 6 LPM or more - Surgical Face mask over NRB |
| NIV, including transport on NIV | - Circuit with Filter only – N95/face shield |
| Vents | - Standard Practice - N95/face shield suggested |
| Intubation / Extubation | - Standard Practice– N95/face shield |
| HFNC - | - Standard Practice– N95/face shield Surgical face mask for all patients on HFNC |
| Sputum Induction | - NONE – appeals can be reviewed by the Medical Director of RT and allowed on a case-by-case basis |
| Ventilator Suctioning | - In-line only |
| NT Suction | - Standard Practice - N95/face shield |
| Chest Physiotherapy / Vibratory Device | - Consult with practitioner for necessity N95/face shield |
| MetaNeb / Cough Assist | - NONE – appeals can be reviewed by the Medical Director of RT and allowed on a case-by-case basis |
| Bedside PFT | - Consult with practitioner for necessity |

| Current Practice | Pandemic Modifications |
|---|--|
| Contact Precautions and Standard Care for all other Differential Diagnosis | |
| Handheld Medication Nebulizers – N95/face shield | - MDI DPI if available - Filtered Nebulizers only – use with care - No Continuous Nebs |

| | |
|--|--|
| Oxygen Administration – NC, NRB | <ul style="list-style-type: none"> - No Standard Nebulizers - Standard Practice - Surgical Face mask for all Patients on 6 LPM or more - Surgical Face mask over NRB |
| NIV, including transport on NIV | - Circuit with Filter – N95/face shield |
| Vents | - Standard Practice– N95/face shield suggested |
| Intubation / Extubation | - Standard Practice– N95/face shield |
| HFNC | <ul style="list-style-type: none"> - Standard Practice– N95/face shield Surgical face mask for all patients on HFNC |
| Sputum Induction | - NONE – appeals can be reviewed by the Medical Director of RT and allowed on a case-by-case basis |
| Ventilator Suctioning | - In-line only |
| NT Suction | - Standard Practice– N95/face shield |
| Chest Physiotherapy / Vibratory Device | - Consult with practitioner for necessity– N95/face shield |
| MetaNeb / Cough Assist | - NONE – appeals can be reviewed by the Medical Director of RT and allowed on a case-by-case basis |
| Bedside PFT | - Consult with practitioner for necessity |

Pandemic Modifications

Other Nebulized Medications for Specific Patient Populations (nebulized medications deemed ESSENTIAL to care plan)

1. PH patients (medications including Tyvaso, inhaled epoprostenol, inhaled nitric oxide)
2. CF patients (medications include inhaled antibiotics, pulmozyme, hypertonic saline)
3. Massive hemoptysis (inhaled tranexamic acid)

CF and PH patients requiring nebulized medications MUST be tested for COVID-19 upon admission (ED or Floor)

- If Negative – Standard Practice
- If Positive OR results not available when medication is due – **N95/face shield, negative pressure room if available. If not, portable HEPA filter in the room if available**

Tranexamic acid administration:

- If Negative – Standard Practice
- If Positive OR results not available when medication is due – **N95/face shield, negative pressure room if available. If not, portable HEPA filter in the room if available**

*Nebs may be used in mechanically ventilated patients depending on ventilator compatibility and availability of the proper delivery device (Aerogen neb delivery system). This can be determined by the Respiratory Therapy Supervisor on call

May 12, 2020