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# COVID-19 Northern Ontario Nursing Station Triage Guideline

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# COVID-19 Nursing Station Management

**PLEASE NOTE:** All patient visits at a nursing station during the COVID-19 pandemic should be initiated through phone triage. The CTAS-COVID triaging system for Northern Ontario nursing stations is described in this document. All patients with interviews suspicious for COVID-19 respiratory disease must be seen in nursing station for COVID-19 triaging. The exception is CTAS-5-COVID, which may be triaged as such via phone and remain in isolation.

## CTAS-5-COVID

Patient reports only minor viral symptoms on phone interview and is deemed reliable for reassessment by phone. No presentation to nursing station necessary. These patients must be advised to self-isolate and **follow-up with nursing station only if their condition worsens**. See below.

## CTAS-4-COVID

Patient is clinically stable with symptoms of mild respiratory disease including community-acquired pneumonia **but no risk factors or concerning vital signs**. These patients should be assessed in nursing station but can return to isolation if deemed reliable for reassessment by phone. These patients should be discussed with MD and receive 24hr follow-up for re-triage. See pg. 3.

## CTAS-3-COVID

Patient is clinically stable with symptoms of mild respiratory disease, reassuring vitals **but at least one risk factor on history**. Early MD consult required. These are MEDEVAC patients after CTAS-2 patients are cleared. See pg. 4.

## CTAS-2-COVID

Patient has symptoms of moderate or severe respiratory disease AND/OR **major physical exam findings** AND/OR **major immunocompromise**. MD must be consulted urgently, and MEDEVAC initiated. Please refer to pathway on pg. 5 and CTAS-2-COVID Order Sheet for further details.

### CTAS-5-COVID Assessment

Phone interview	Nursing station exam (not required)
<ul style="list-style-type: none"> <li>• Patient reports only mild cold or flu-like symptoms.</li> <li>• If reports dyspnea, purulent sputum, chills, night sweats, consider CTAS-4.</li> </ul>	<ul style="list-style-type: none"> <li>• SpO<sub>2</sub> ≥ <b>95%</b> AND a respiratory rate &lt; <b>18</b> and HR &lt; <b>100</b>.</li> <li>• <b>NO OTHER COVID-19</b> physical exam findings or risk factors (see flowsheet).</li> </ul>

NOTE: If patient has a history of diabetes, they qualify for CTAS-5 **IF** recent A1C <9%.

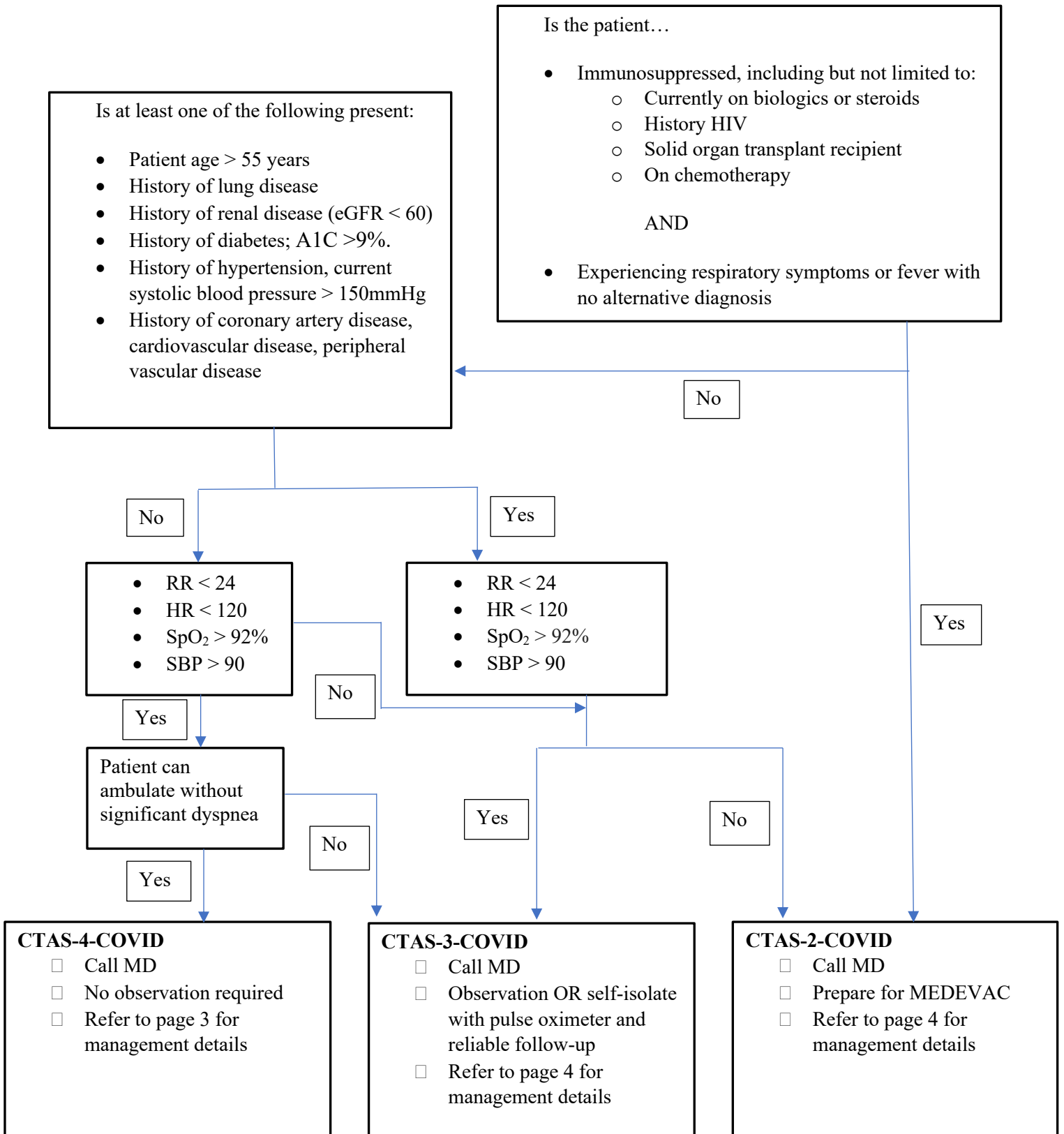
NOTE: If patient has a history of hypertension, they qualify for CTAS-5 **IF** systolic BP <150.

**MANAGEMENT:** Remain in self isolation with **phone call to nursing station if symptoms worsen**. Due to the atypical presentation and progression of COVID-19 these patients must be considered mild COVID-19 patients until proven otherwise but **do not require medical intervention**. These patients do not require observation at nursing station.

**Please use the following page to triage all other patients.**



# COVID-19 Nursing Station Management





### CTAS-4-COVID

This patient does not require observation at nursing station. Consult MD.

#### ACTIONS:

1. Swab patient for COVID-19 (and influenza if outbreak in region)
  2. Discharge from nursing station with written discharge instructions after consultation with MD. Patient must be reliably reachable for **24hr** follow-up from nursing station to assess triage status.
- CONSIDER chest X-ray if available.
  - CONSIDER labs, including blood cultures x2 if fever over 38°C.
  - CONSIDER PO antibiotics for community-acquired pneumonia IF fever over 38°C or purulent sputum.
    - Amoxicillin 1g PO TID x 5 days and/or doxycycline 200mg PO ONCE then 100mg PO BID x 5 days.
    - If recent amoxicillin in last 3 months, use amoxicillin-clavulin 875 mg po TID x 5 days and/or doxycycline 200mg PO ONCE then doxycycline 100mg PO BID x 5 days.
    - If penicillin allergy, use cefuroxime 500mg PO BID x 5 days and/or doxycycline 200mg PO ONCE then 100mg PO BID x 5 days.
  - CONSIDER oseltamivir IF recent influenza outbreak in region.
  - NO nebulized medication



## CTAS-3-COVID

### ACTIONS:

1. Swab patient for COVID-19 (and influenza if outbreak in region)
  2. This patient is high-risk and likely to require MEDEVAC if condition worsens. **Discuss with MD.**
    - a. For patients with SpO<sub>2</sub> >94%, may return to self-isolation if possible and **ONLY** with portable pulse-oximeter AND a means of follow-up from nursing station BID.
    - b. For patients with SpO<sub>2</sub> ≥ 92% or ≤94%, plan to remain in nursing station for MEDEVAC.
  3. If in nursing station, close monitoring for change in triage status with SpO<sub>2</sub> ± every 6 hours.
  4. **IF SpO<sub>2</sub> <92% AND/OR respiratory rate >24 AND/OR worsening dyspnea, urgently reassess patient and consider re-triage as CTAS-2-COVID. Notify MD and ORNGE.**
- CONSIDER chest X-ray if available.
  - CONSIDER PO antibiotics for community-acquired pneumonia IF fever over 38°C or purulent sputum.
    - Amoxicillin 1g PO TID x 5 days and doxycycline 200mg PO ONCE then 100mg PO BID x 5 days.
    - If significant respiratory comorbidities or recent amoxicillin in last 3 months, use amoxicillin-clavulin 875 mg po TID x 5 days (ensure renal dosing) and doxycycline 200mg PO ONCE then 100mg PO BID x 5 days.
    - If penicillin allergy, use cefuroxime 500mg PO BID x 5 days and/or doxycycline 200mg PO ONCE then 100mg PO BID x 5 days.
  - CONSIDER oseltamivir IF recent influenza outbreak in region.
  - NO nebulized medication



## CTAS-2-COVID

**This patient is an URGENT MEDEVAC and this patient must remain in nursing station. Notify MD immediately.**

### ACTIONS:

1. Swab patient for COVID-19 (and influenza if outbreak in region).
  2. Initiate SpO<sub>2</sub> and cardiac monitoring (if available.)
  3. **SEE OXYGEN PROTOCOL pg. 6-8. Begin with Level 1 Oxygen Therapy as available and appropriate; proceed to Levels 2 and 3 Oxygen Therapy options as available and appropriate.**
  4. Start IV saline lock.
  5. Labs as described in CTAS-2-COVID Order Sheet.
  6. Start IV ceftriaxone 1g q 24hrs. IF severe penicillin allergy, give levofloxacin 750 mg PO once daily x 5 days
  7. Start PO/IV azithromycin 500mg once daily x 1 then 250mg PO once daily x 4.
- CONSIDER piperacillin-tazobactam 4.5g IV q6h instead of ceftriaxone if recent hospitalization.
  - CONSIDER vancomycin if history of MRSA (ensure renal dosing).
  - CONSIDER oseltamivir if recent influenza outbreak in region
  - CONSIDER hydroxychloroquine in consultation with MD.
  - NO nebulized medication
  - CONSIDER Ventolin via MDI if patient has history of asthma.

## OXYGEN PROTOCOL (LEVELS 1-3)

**Always use oxygen concentrator when available unless required flow exceeds 10L/min OR maximum flow volume of concentrator.**

### LEVEL 1 OXYGEN THERAPY

Step 1	<p><b>Contact/droplet PPE</b></p> <p><b>Patient requires:</b> nasal cannula, surgical mask</p>	<p><b>IF SpO<sub>2</sub> &lt;92%:</b></p> <ul style="list-style-type: none"> <li>Apply nasal prongs and then surgical mask to patient and begin with 2L/min O<sub>2</sub> and titrate to achievement of target SpO<sub>2</sub> or a maximum of 6L/min (45% FiO<sub>2</sub>). Reassess SpO<sub>2</sub>.</li> </ul>
Step 2	<p><b>Contact/droplet PPE</b></p> <p><b>Patient requires:</b> simple O<sub>2</sub> mask, surgical mask</p>	<p><b>IF patient not tolerating nasal prongs:</b></p> <ul style="list-style-type: none"> <li>Apply simple mask and then surgical mask to patient and begin with 5L/min and titrate to achievement of target SpO<sub>2</sub> or a maximum of 10L/min (50-60% FiO<sub>2</sub>). Reassess SpO<sub>2</sub>.</li> </ul>
Step 3	<p><b>Contact/droplet PPE</b></p> <p><b>Patient requires:</b> Oxymizer nasal cannula, surgical mask</p>	<p><b>IF patient on nasal prongs or simple mask for more than 24hrs:</b></p> <ul style="list-style-type: none"> <li>Apply Oxymizer nasal cannula and then surgical mask to patient and titrate up to 8-10L/min (40-65% FiO<sub>2</sub>). Reassess SpO<sub>2</sub>.</li> </ul>
Step 4	<p><b>IF SpO<sub>2</sub> remains &lt;92% OR RR &gt;30 OR patient distressed:</b></p> <ul style="list-style-type: none"> <li>CALL MD.</li> <li>ALERT ORNGE.</li> <li>Reassess goals of care.</li> <li>Escalate to level 2 oxygen therapy if available</li> </ul>	

**See next page for LEVEL 2 OXYGEN THERAPY**



# COVID-19 Nursing Station Management

## LEVEL 2 OXYGEN THERAPY

Step 1	<p><b>Contact/droplet PPE</b></p> <p><b>Patient requires:</b> Maintenance of previous oxygen therapy</p>	<p><b>IF SpO<sub>2</sub> &lt;92%:</b></p> <ul style="list-style-type: none"> <li>Consider <b>awake</b> proning of patient. Patient can rotate between laying on their sides, their front, or seated positions as tolerated. Reassess SpO<sub>2</sub>.</li> </ul>
Step 2	<p><b>Contact/droplet PPE</b></p> <p><b>Patient requires:</b> HiOx O<sub>2</sub> mask, Hi-Ox viral filter</p>	<p><b>IF SpO<sub>2</sub> &lt;92%:</b></p> <ul style="list-style-type: none"> <li>Apply Hi-Ox mask with viral filter to patient and begin with 6L/min and titrate up to 8L/min (&gt;80% FiO<sub>2</sub>).</li> </ul>
Step 3	<p><b>Airborne PPE</b></p> <p><b>Patient requires:</b> Non-rebreather mask, nasal prongs, surgical mask, O<sub>2</sub> tank access over 10L/min.</p>	<p><b>IF Hi-Ox not available:</b></p> <ul style="list-style-type: none"> <li>Apply non-rebreather (NRB) mask <b>over</b> nasal prongs to patient. Place surgical mask on over NRB. Disconnect nasal prongs from O<sub>2</sub> supply but leave in place in case needed for Level 3 escalation. NRB begin with 8L/min and titrate up to 10L/min. (70-80% FiO<sub>2</sub>).</li> </ul>
Step 4	<p><b>IF SpO<sub>2</sub> remains &lt;92% OR RR &gt;30 OR patient distressed:</b></p> <ul style="list-style-type: none"> <li>CALL MD.</li> <li>ALERT ORNGE.</li> <li>Reassess goals of care.</li> <li>Escalate to level 3 oxygen therapy if available</li> </ul>	

See next page for LEVEL 3 OXYGEN THERAPY



## LEVEL 3 OXYGEN THERAPY

Step 1	<p><b>Airborne PPE</b></p> <p><b>Patient requires:</b> Non-rebreather mask, nasal prongs, surgical mask, O<sub>2</sub> tank access over 10L/min.</p>	<p><b>IF SpO<sub>2</sub> &lt;92:</b></p> <ul style="list-style-type: none"> <li>• Apply non-rebreather (NRB) mask over nasal prongs to patient. Place surgical mask on over NRB. Nasal prongs at 6L/min, NRB titrate up to 15L/min.</li> <li>• Requires O<sub>2</sub> tank if exceeds flow rates of over 10L/min or stated O<sub>2</sub> capacity of concentrator.</li> <li>• Consult MD for lower SpO<sub>2</sub> target of 88-90% if oxygen tank supply limited.</li> </ul>
Step 2	<p><b>Airborne PPE</b></p> <p><b>Patient requires:</b> Airvo or Optiflow</p>	<p><b>IF SpO<sub>2</sub> &lt;92%:</b></p> <ul style="list-style-type: none"> <li>• Consider High-Flow Nasal Cannula (HFNC) IF AVAILABLE with MD consult.</li> </ul>
Step 3	<p><b>Airborne PPE</b></p> <p><b>Patient requires:</b> CPAP machine</p>	<p><b>IF SpO<sub>2</sub> &lt;92%:</b></p> <ul style="list-style-type: none"> <li>• Consider CPAP IF AVAILABLE with MD consult.</li> </ul>
Step 4	<p><b>IF SpO<sub>2</sub> remains &lt;92% OR RR &gt;30 OR patient distressed:</b></p> <ul style="list-style-type: none"> <li>• CALL MD STAT.</li> <li>• Initiate ORNGE Virtual Emergency Services <b>if available.</b></li> <li>• Reassess goals of care.</li> <li>• Consider palliative care.</li> </ul>	