**COVID-19 Treatment Adult (Module)**

- Confirmed or suspected

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**Instructions for completing this order set:**
- ☑ Indicates a pre-selected order. To delete a pre-selected order, draw a line through it
- ☐ Must tick the box for order to be implemented. Orders not checked will not be implemented
- Fill in blank spaces as needed/appropriate
- Indicates an item for consideration by Provider; is NOT an order

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**COVID-19 Treatment Adult (Module)**

**Admit/Transfer/Discharge/Status**
- Refer to local site protocols for COVID-19 admitted patient

**Patient Population**
- Adult patient with confirmed or pending investigation for COVID-19 infection

**Suggested criteria for admission to non-ICU area:**
- See Page 4 for Clinical Decision Support for admission of COVID-19 patients

**Suggested criteria for admission to Critical Care/ICU area:**
- See Island Health Guideline “Recommended actions for respiratory support of suspected/confirmed COVID-19 patients”

**Alerts**
- USE N95 mask and visor for any aerosol generating procedure (intubation, CPR, bronchoscopy, nebulizers, high flow oxygen, non-invasive ventilation, deep suction, BVM)
- Patient Precautions, Droplet and Contact, COVID–19. Refer to PICNet Guidelines for Personal Protective Equipment (PPE) during Aerosol generating medical procedures

**Patient Care**
- Patient Education, Patient to stay 2 m away from others while in their room. Patient to wear surgical mask during Transportation. Refer to Island Health COVID-19 Intranet resources
- Notify MRP for:
  - Hypotension with MAP less than 65
  - Oxygen requirement of 6 L/min or greater to maintain SpO₂ greater than 92%
  - Frequent desaturations despite oxygen
  - Significant increase in work of breathing/fatigue
  - Decreased level of consciousness / Altered mental status
  - Respiratory rate greater than 24 BPM
- Nebulizers, Non-Invasive Ventilation (Bi-PAP/CPAP) or Optiflow should only be given in a negative pressure room
- Oxygen Therapy, to improve oxygenation, PRN, Titrate to maintain oxygen saturation greater than 92% OR ______%

**Laboratory**
- Minimize blood draws
- Order tests below only if not already done
- Utilize ADD-ON testing to previously collected biospecimens whenever possible

**Hematology**
- Complete Blood Count and Differential, Blood, ASAP
- INR, Blood, ASAP

**Chemistry**
- Troponin and BNP are not recommended for all COVID-19 patients, unless suspicion of Acute MI, history of cardiac disease
- Electrolytes and Creatinine Panel, Blood, ASAP
- ALT, Blood, ASAP

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*[Email orderset@viha.ca to provide feedback or report concerns regarding this order set]*
COVID-19 Treatment Adult (Module)
- Confirmed or suspected

Chemistry (continued)
☐ LDH, Blood, ASAP
☐ Procalcitonin Level, Blood, ASAP
☐ CRP, Blood, ASAP
☐ hCG Qualitative for Pregnancy, Blood, ASAP
☐ __________

- If signs of shock, order Lactate Level
☐ Lactate Level, Blood, ASAP

Microbiology
- If not already sent, order nasopharyngeal swab for COVID-19
☐ Respiratory Virus Panel, Swab, Nasopharyngeal, ASAP *includes COVID-19 (SARS CoV-2), Flu A, Flu B, RSV
☐ Blood Culture x 2, Peripheral Blood, ASAP

Diagnostic Imaging
☐ XR Chest AP/PA 1 View, ASAP, Portable

Heart Health
☐ ECG Electrocardiogram, STAT

Continuous Infusions
- Conservative fluid management strategy is recommended for patients with COVID-19
- Provider to ensure IV orders are not duplicated in admission orders
☐ __________

Medications
- Corticosteroids are to be avoided in COVID-19 patients unless evidence of COPD/asthma
- Use of lopinavir/ritonavir (Kaletra) is limited to patients enrolled in clinical trial
- Supply of bronchodilator inhalers is limited; Order selectively for appropriate clinical indications (e.g wheezing)

Analgesics and Antipyretics(non-opiate)
- Use of NSAIDs to treat symptoms of COVID-19 is not recommended until further evidence becomes available
**Max acetaminophen from all sources 4,000 mg per 24 hours**
☐ acetaminophen, 650 mg, Tab, oral, Q6H, PRN for pain/fever
☐ acetaminophen, 650 mg, Supp-Rectal, Q6H, PRN for pain/fever

Opiates
SYMPTOM MANAGEMENT
☐ HYDROMorphine (Dilaudid) - RANGE DOSE 0.5 mg to 1 mg, Tab, oral, Q1H, PRN for dyspnea, pain or air-hunger. Notify MRP upon administration of second dose for reassessment of symptom control
☐ HYDROMorphine (Dilaudid) inj - RANGE DOSE 0.25 mg to 0.5 mg, Soln-Inj, SUBCUT, Q3MIN, PRN for dyspnea, pain or air-hunger. Notify MRP upon administration of second dose for reassessment of symptom control

Opiate Reversal
☐ naloxone inj, 0.1 mg, Q3MIN, Soln-Inj, IV/IM/SC, PRN for opioid reversal, if RR less than 8 AND decreased LOC. Administer until patient alert/awake and RR greater than 8. Notify MRP if administered

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COVID-19 Treatment Adult (Module)
- Confirmed or suspected

### Anti-infectives

**ANTIVIRALS**
- Order oseltamivir if nasopharyngeal results pending; Discontinue if influenza negative

#### For eGFR greater than 60 mL/min
- oseltamivir, 75 mg, Cap, oral, BID, for 10 doses, NOW

#### For eGFR 31 to 60 mL/min
- oseltamivir, 30 mg, Cap, oral, BID, for 10 doses, NOW

#### For eGFR 11 to 30 mL/min
- oseltamivir, 30 mg, Cap, oral, DAILY, for 5 doses, NOW

**ANTIMICROBIALS**
- Consider treating for Community-Acquired Pneumonia (CAP) if clinically indicated

#### cefTRIAXone
- 2 g, Soln-Inj, IV, Q24H, for 5 doses, NOW

#### azithromycin inj
- 500 mg, Soln-Inj, IV, Q24H, for 3 doses, NOW

- For severe beta-lactam (penicillin/cephalosporin) allergy, e.g. anaphylaxis, angioedema

#### moxifloxacin
- 400 mg, Tab, oral, DAILY, for 5 doses, NOW, May give IV if not able to take orally

**Consults/Referrals**
- Physician to physician phone call is required for all consult to specialist orders

- Consult to Randomized Clinical Trial (RCT) Coordinator, Inpatient, Reason: COVID-19 confirmed (*Victoria sites only*)

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**Key:** Req – Requisition  MAR – Medication Administration Record  K – Kardex  Dis – Discontinued

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### Signature, Designation

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*Email orderset@viha.ca to provide feedback or report concerns regarding this order set*
Clinical Decision Support for Providers

Additional resources for Evaluation, Testing, and Management of COVID-19:
BC Centre for Disease Control (BCCDC) Coronavirus Disease (COVID-19)
http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing-isolation

Centers for Disease Control (CDC) Coronavirus Disease (COVID-19)

Suggested criteria for admission to non-ICU area:
1. Dyspnea at rest or with minimal exertion
2. CURB65 Score greater than or equal to 2: https://www.mdcalc.com/curb-65-score-pneumonia-severity#use-cases
3. Requiring Supplemental Oxygen to keep $O_2$ greater than 92%, but on less than 6 L/min
4. Medical Co-morbidities which place patient at high risk for deterioration (immunocompromised, age greater than 70, advanced chronic respiratory or cardiac disease)

Clinical Considerations:
1. Ensure appropriate Personal Protective Equipment (PPE)
   a. Droplet/Contact precautions for all interactions
   b. Airborne precautions for any Aerosol-generating Medical Procedures (AGMP); See Page 1
2. Work-Up
   a. Minimize frequency of lab draws to reduce Health Care Worker (HCW) exposure
   b. Rising inflammatory markers can suggest clinical deterioration and higher mortality
      i. Do not trend daily, not needed on all patients; check if clinical deterioration
   c. Elevated procalcitonin can suggest bacterial co-infection (CAP / HAP / VAP / sepsis)
3. Goals of care and prognosis
   a. Robust Code Status / MOST discussion at admission
      i. Review signs and symptoms of deterioration, when to intubate (C1 / C2), escalate or palliate (C0 / M2-3)
   b. Signs of clinical deterioration:
      i. High $O_2$ needs (6 L Nasal Prongs or Non-Rebreather (NRB)
      ii. Frequent desaturations despite oxygen therapy
      iii. Significant increase in work of breathing / respiratory distress / altered level of consciousness
      iv. Signs of cardiogenic shock
   c. 25% of patients admitted with severe symptoms will become critically ill
      i. If critically ill; 50% mortality
      ii. Pneumonia; 4 – 15% mortality
4. Management is supportive with oxygen or mechanical ventilation
   a. Hydroxychloroquine / Remdesivir / Kaletra are experimental treatments
      i. Consult local experts regarding use
   b. Disease progression to pneumonia/ARDS at mean of 8 – 9 days from symptom onset; Complications include ARDS (17 – 29% of hospitalized patients), then less commonly sepsis and cardiogenic shock
   c. If signs of clinical deterioration:
      i. MOST C2 or C1 – consult ICU early
      ii. MOST M3, M2
         1. When $O_2$ needs reach 8 L, discuss next steps should patient decline
         2. Consider Optiflow / Non-Invasive Ventilation in negative pressure room on a case by case basis based on prognosis and resource availability
            a. Consult Internal Medicine, Respirology or ICU if uncertainty
         3. Palliation if continued deterioration despite maximal oxygen therapy
            a. See symptom management guideline on next page
            b. See “Palliative Imminently Dying” order set
OPIOIDS
(ALL relieve dyspnea & can be helpful for cough - codeine is not recommended)

Opioids help relieve acute respiratory distress & agitation, contribute to energy conservation

Begin at low end of range for frail elderly

Start with PRN *but* low threshold to advance to q4h / q6h scheduled dosing: Avoid PRN = "Patient Receives Nothing"

**MORPHINE**
2.5 - 5 mg PO *OR* 1 - 2 mg SQ
q1h PRN *(SQ can be q30min PRN)*, if >6 PRN in 24h, MD to review

**HYDROMORPHONE**
0.5 - 1 mg PO *OR* 0.25 - 0.5 mg SQ
q1h PRN *(SQ can be q30min PRN)*, if >6 PRN in 24h, MD to review

**TITRATE UP AS NEEDED**

If using >6 PRNs in 24h, consider dosing at q4h REGULARLY *(q6h for frail elderly)* *and* continue a PRN dose

Also consider (see guidelines*):
PO solution for cough
e.g. dextromethorphan, hydrocodone antinauseant eg. metoclopramide SQ laxative eg. PEG / sennosides

**FOR ALL PATIENTS: OTHER MEDICATIONS**

Opioids are the mainstay of dyspnea management, these can be helpful adjuvants

For associated anxiety:
**LORAZEPAM**
0.5 - 1 mg SL q2h PRN, max 3 PRN / 24h, MD to review if max reached

For severe SOB / anxiety:
**MIDAZOLAM**
1 - 4 mg SQ q30min PRN, max 3 PRN / 24h, MD to review if max reached

For agitation / restlessness:
**METHOTRIMEPRAZINE**
2.5 - 10 mg PO / SQ q2h PRN, max 3 PRN / 24h, MD to review if max reached

**Respiratory secretions / congestion near end-of-life**

Advise family & bedside staff: not usually uncomfortable, just noisy, due to patient weakness / not able to clear secretions

Consider glycopyrrolate 0.4 - 0.6mg SQ q4h PRN *OR* atropine 1% (ophthalmic drops) 1 - 2 drops SL q4h PRN

If severe consider furosemide 20mg SQ q2h PRN & monitor response

**Engage with your team to ensure comfort is the priority as patients approach end of life. Please ensure written orders reflect this. Unmanaged symptoms at time of death will add to distress of patients, family members & bedside staff.**

These recommendations are for reference and do not supercede clinical judgement.

Evidence supports that appropriate opioid doses do not hasten death in other conditions like advanced cancer or COPD. Dosing should be reassessed as patient's condition or goals of care change.


**BEFORE enacting these recommendations PLEASE clarify patient's GOALS OF CARE:**
these recommendations are consistent with MOST-DNR-M1, M2, M3

Suggested tools to assist with conversation:
Communicating Serious News (link to UpToDate http://bit.ly/CommunicatingSeriousNews)