island health

Clinical Order Set

Demographics

COVID-19 Treatment Adult (Module)

- Confirmed or suspected

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

Key | Phase

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

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 SpO_2 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

COVID-19 Treatment Adult (Module)

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Signature, Designation | College License # | Date | Time

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COVID-19 Treatment Adult (Module)

- Confirmed or suspected

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

Key | **Phase**

COVID-19 Treatment Adult (Module)

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

☐ HYDROmorphone (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
☐ HYDROmorphone (Dilaudid) inj - RANGE DOSE 0.25 mg to 0.5 mg, Soln-Inj, **SUBCUT**, Q30MIN, 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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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

OR

☐ moxifloxacin inj, 400 mg, Soln-Inj, IV, Q24H, for 5 doses, NOW, if unable 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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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)
https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html

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

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Symptom management for patients with COVID-19 receiving end-of-life supportive care outside of the ICU

per BC Centre for Palliative Care Guidelines*

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:
From Seattle MDs: COVID 19 Conversation Tips (link http://bit.ly/SeattleVitalTalkCOVID19)
Serious Illness Conversation Guide (link to BC Cancer http://bit.ly/SeriousIllnessConversationGuide)
Communicating Serious News (link to UpToDate http://bit.ly/CommunicatingSeriousNews)

Patient NOT already taking opioids ("opioid-naive")

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
eg. dextromethorphan, hydrocodone
antinauseant eg. metoclopramide SQ
laxative eg. PEG / sennosides

Patient already taking opioids

Continue previous opioid,
consider increasing by 25%

To manage
breakthrough symptoms:
Start opioid PRN at 10% of total daily (24h) opioid dose

Give PRN: **q1h PRN if PO, q30min if SQ**

For further assistance including telephone support please contact your local Palliative Care team

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.

***BC Centre for Palliative Care Symptom Management Guidelines: Dyspnea, Cough**
http://bit.ly/BCCentrePalliativeCareDyspneaPDF | http://bit.ly/BCCentrePalliativeCareCoughPDF

Version: 2020 Mar 18-2. Recommendations compiled collaboratively with input from a team of Fraser Health Palliative Care MDs and pharmacists