Symptom Management for Adult Patients with COVID-19 Receiving End-of-Life Supportive Care Outside of the ICU

Adapted from:
- Romona Mahtani and Leah Steinberg. Comfort Care Orders for COVID-19 Patients Outside of ICU, Mount Sinai Hospital, Sinai Health System. March 2020.
- Ariel Hendin, Christian G La Rivière, David M Williscroft, Erin O'Connor, Jennifer Hughes, and Lisa M Fischer (CJEM. March 2020).
- BC Centre for Palliative Guidelines: Management for adult patients with COVID-19 receiving end-of-life supportive care outside of the ICU.
Thank you for contribution for the Sudbury Palliative Care MDs and Dr. K. McKechnie.

Overview

- This document pertains to patients whereby the patient and/or substitute decision maker have established the following goals of care and treatment plan
    - Patient/family accept death is inevitable (prognosis hours to days)
    - Goals of care: prioritizing comfort
        - "comfort care only"
        - focus exclusively on managing symptoms to provide comfortable end of life experience
    - Treatment plan:
        - DNR/DNI, no ICU transfer
        - focus on interventions that do not shorten or prolong life, but provide symptom relief
            - No bloodwork or imaging
            - No artificial feeding
            - No disease-modifying therapies and discontinuation of all medications not contributing to patient comfort
            - No unnecessary devices (e.g. monitors, nasogastric tubes)
- Decision-making, as always, should be made based on patients' values and goals, which should be explored early in the patient's illness trajectory. Concerns around overall resource utilization in COVID-19 should not affect individualized decision-making in the absence of clear guidance from established policies, administrators or ethicists.
- The safety and health of care providers and family members of a patient with COVID-19 must be carefully balanced with meticulous symptom assessment and management to allow the patient to die comfortably and with dignity.
- While the information below provides recommended starting dosing of medications to manage common symptoms patients experience at the end of life, dosing and frequency of medication administration should be individualized based on the patient's response.
    - Begin at low end of range for frail elderly
    - COVID-19 symptoms can advance quickly – be prepared to escalate dosing or start with the higher dose range.
    - If using greater than 3 PRNs in 24h, consider using scheduled q4h or q6h dosing of the medication AND continue PRN dose.
    - Consultation with Palliative Care is recommended if there is difficulty in managing symptoms.
- These recommendations are for reference and do not supersede clinical judgement.

For all patients:

- Discuss and document Goals of Care and Treatment Plan (see above)
- Minimize restrictions on visiting and transfer to private room when possible.
- Recognize that nursing assessments of patients dying of highly transmissible acute respiratory infections are intensive, time consuming, and require a high degree of cognitive load. This will likely require a lower patient to nurse ratio and/or frequent relief of nursing duties. Assessments will involve:
    - Frequent symptom assessments using validated tools (e.g. Edmonton Symptom Assessment Score) for signs of distress (pain, agitation, dyspnea) and provision of medication as appropriate for symptoms.
    - Frequent patient repositioning, skin care, eye care (Tears Naturals PRN) & mouth care (moist swab and/or saliva substitute PRN)
    - Emotional support to patient and family.
- Consider insertion of a subcutaneous (subcut) lock (one per medication) for medication delivery
- Continue IV if patent. Lower fluids to TKVO to avoid volume overload but to maintain IV access.
- Intravenous fluids and enteral feeding do not contribute to patient comfort nearing end of life. If the decision is made to continue enteral feeding or intravenous fluids, monitor closely for complications including aspiration and pulmonary or peripheral edema.
- Consider Foley PRN for urinary retention or to facilitate care.

- **Avoid the use of the following as they may generate aerosolized SARS-CoV2 virus particles and infect healthcare workers and family members.**
    - Fan
    - Oxygen flow greater than 4-6L/min or 50% FiO2*
    - High-flow nasal cannula oxygen
    - Continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP)
    - All nebulized treatments (bronchodilators, epinephrine, saline solutions etc)
- **Do NOT suction patient*** due to risk of spreading virus. Instead, consider postural drainage and use medications for respiratory secretions

* ***Follow IDAC recommendation, which may change overtime.***

- Consider involving Spiritual Care, Social Work, and/or Palliative Care if appropriate.

Fever

- Acetaminophen 650 mg PO/PR q 4 hrs PRN

Pain

- If opioid naïve
    - Morphine 2-10 mg PO PRN or 1-5 mg subcut/IV q 1 h PRN OR
    - Hydromorphone 0.4-2 mg PO or 0.2-1 mg subcut/IV q 1 hr PRN
- If already taking opioids: continue previous opioid, and consider converting oral to IV/Subcut (reduce dose by 50% when doing an oral conversion to IV/subcut)

Airway secretions

- Glycopyrrolate 0.4mg subcut/IV q 4 hrs PRN OR
- Scopolamine 0.4 mg subcut/IV q 4 hrs PRN (scopolamine crosses the blood-brain barrier and will cause more sedation, which may be helpful if the patient is agitated)
- If volume overload, consider furosemide 20mg subcut or 20-40mg IV and monitor response

Agitation/delirium

- Haloperidol 1mg IV/subcut q 12 hrs scheduled and 0.5-1mg subcut/IV q 2 hrs PRN
    - Consider if patient is awake and able to talk to family
- Methotrimeprazine (Nozinan) 2.5-10mg PO or 6.25-12mg IV/subcut q 12 hrs scheduled and 5-25mg PO or 6.25-25mg subcut q 4 hrs PRN
    - Typically, more sedating: consider if patient does not have meaningful awake time
- Midazolam 0.5-2mg subcut/IV q 30 mins PRN
    - For agitation when goal is sedation. May require Palliative Sedation Approach (see below)

Dyspnea

- Low flow oxygen* (1-4L/min) for comfort PRN
    - Titrate to symptoms and not O2sat
    - Consider weaning oxygen supplementation when symptoms are controlled
    - Discontinue if oxygen is not providing comfort
- Opioid (first line): help relieve acute respiratory distress & agitation, contribute to energy conservation and may be helpful for cough
    - If opioid-naïve, low-dose morphine or hydromorphone (50-75% of dose used for pain relief) is the medication of choice
        - Morphine 2-5 mg PO q 1 hr PRN or 1-2.5 mg subcut/IV q 30 mins PRN OR
        - Hydromorphone 0.4-1 mg PO q 1 hr PRN or 0.2-0.5 mg subcut/IV q 30 mins PRN
    - If already taking opioid,
        - Continue previous opioid, consider increasing by 25% and converting to IV/subcut if needed (reduce dose by 50% when doing an oral conversion to IV/subcut)
        - Give breakthrough doses (10% of the total daily dose of subcut/IV opioid in 24 hrs) q30min PRN to effect
- Second line: for dyspnea not responding to opioid and/or significant anxiety with dyspnea
        - Lorazepam 0.5-2mg SL/subcut/IV q 2 hr PRN
        - Midazolam 0.5-1mg subcut/IV q 30 mins PRN
- For severe respiratory distress, may require Palliative Sedation approach (aggressive simultaneous use of benzodiazepine and opioids)
    - Hydromorphone 1mg IV/subcut q 4 hrs scheduled and q 30 mins PRN for SOB OR Morphine 5mg IV/subcut q 4 hrs scheduled and q 30 mins PRN for shortness breath
        - Titrate dose up based on response and PRN use
    - Midazolam 1-5mg IV/subcut q 30 mins PRN
        - Adjust dose based on severity of respiratory distress and degree of sedation desired
        - Consider infusion if more than 3 PRN doses in 24h

Nausea/vomiting

- Haloperidol 0.5-1mg subcut/IV q 4 hrs PRN OR
- Ondansetron 4 mg subligual/subcut/IV q 6 hrs PRN OR
- Metoclopramide 5-10mg subcut/IV q 6 hrs PRN OR
- Olanzapine Zydis 2.5-5mg PO/sublingual q 6 hr PRN

Bowel Regimen

- Bisacodyl 10mg PR daily PRN (give if no BM x 3 days)