Management of Respiratory Distress and End-of-life Care in COVID-19 Residents in Long-Term Care Homes

This order set is to be used when residents' goals of care include prioritizing comfort and the treatment decisions are consistent with DNR, no hospital transfer, symptom and supportive care in place.

- Discontinue all non-essential medications
- Discontinue subcutaneous and IV hydration to avoid fluid overload
- Insert subcutaneous butterfly for medications
- Avoid the use of the following as they may generate aerosolized SARS-CoV2 virus particles and infect healthcare workers and family members
  - Humidified air/oxygen
  - Fan
  - Oxygen flow greater than 4 - 6L/min
  - High-flow nasal cannula
  - Continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP)
  - Nebulized treatments (bronchodilators, epinephrine, saline solutions etc.)

All doses given below are suggested starting doses. COVID-19 symptoms may advance quickly. Be prepared to escalate dosing or start with higher dose in the range given. Consider giving front-line staff dose ranges and capacity for urgent clinical decision making as needed.

Dyspnea:
Position resident as upright as tolerated

Oxygen:
Supplemental oxygen to reduce the work of breathing (titrate to symptoms, not oxygen saturation)

Opioids: If resident is not on opioids currently,
- Morphine 1- 2.5 mg subcut or IV q30 mins prn OR
- Hydromorphone 0.25 -1 mg subcut or IV q30 mins prn
  - If greater than 3 prns in 24 hrs, MD to reassess
  - Titrate dose as needed according to prns and symptoms
  - If using greater than 3 prns in 24 hrs, consider using standing dose (eg. q 4h), with continued prn doses.
- If resident is already on opioids, continue previous opioid but consider increasing dose by 25%.
- To use the subcut route of administration, decrease the PO opioid dose by 50%.

Adjuvants: (these medications can be used in addition to opioids if needed)
- Lorazepam 0.5 mg - 1 mg q 2 hrs prn subcut or IV or sublingual
  - also useful for managing anxiety

For severe respiratory distress:
Expect to use opioid and benzodiazepine simultaneously and in higher doses.
Consider starting with higher dose immediately to achieve sedation if distress severe.

- Lorazepam 1 – 2 mg subcut or IV or sublingual q 20 - 30 mins prn until symptoms controlled
If greater than 3 prns in 24 hrs, MD to reassess
- Titrate dose as needed according to prns and symptoms
- If using greater than 3 prns in 24 hrs, consider using standing dose, with continued prn dose.

- Midazolam 1 mg - 5 mg subcut or IV q 5 mins prn (if available)
  - Consider regular subcut or continuous subcut dosing

**Respiratory secretions:**
Position resident as upright as tolerated

- Glycopyrrolate 0.4mg subcut q 4 hrs prn **OR**
- Scopolamine 0.4mg subcut q 4h prn
- Atropine ophthalmic drop – use 1 – 2 drops orally under tongue q 8 hours prn
- If volume overload, furosemide 20 mg subcut and monitor response

**Cough:**
If currently on an opioid, titrate (**see dyspnea**) 

If not on an opioid:
Moderate:
- Hydrocodone 5mg q 4-6 hrs. PRN

Severe – start opioid:
Swallow intact:
- Morphine 2.5 - 5 mg PO q 4hrs. Tablets can be used in place of liquid, if unavailable; systemic absorption required regardless of route of administration) **OR**
- Hydromorphone 0.5 – 1 g PO Q4H

Unable to swallow: (see dyspnea)
- Morphine 1- 2.5 mg subcut q1hr **OR**
- Hydromorphone 0.25 -1 mg subcut q 1hr

**Agitation/restlessness:**
- Non-sedating: haloperidol 0.5- 2 mg subcut or IV q 2 hrs prn
- Sedating: methotrimeprazine 6.25 – 25 mg subcut q 4 hrs prn
  - If greater than 3 prns in 24 hrs, MD to reassess
  - Titrate dose as needed according to PRNs and symptoms
  - If using greater than 3 prns in 24 hrs, consider using standing dose, with continued prn dose.

**Nausea/vomiting:**
- Haloperidol 0.5-1 mg subcut or IV q 4h prn. If haloperidol is contraindicated, use methotrimeprazine 2.5 to 6.25 mg subcut q 4 h prn

**Fever:**
- Acetaminophen 650 mg po/pr q 4h prn

**Pain:** If not on opioid
- Morphine 1 – 2.5 mg subcut or IV q 30 min prn OR
- Hydromorphone 0.2 – 0.5 mg subcut or IV q 30 min prn
  - If greater than 3 prns in 24 hrs, MD to reassess
  - Titrate dose as needed according to prns and symptoms
  - If using greater than 3 prns in 24 hrs, consider using standing dose, with continued prn dose.

**Laxatives:**
- Consider the need for laxatives including suppositories and fleet q 3 days prn.

**Supportive and bereavement care:**
- Consider involving supportive care colleagues (eg. SW, Spiritual Care, activation staff as appropriate)

Other orders as needed:

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These recommendations are for reference and do not supersede clinical judgement. Recommendations compiled collaboratively with input from a team of Palliative Care MDs and pharmacists at Baycrest and Sinai Health System.

For further assistance including telephone/virtual support, please contact your local Palliative Consultant.