Symptom Management of COVID-19 in Senior Living Facilities

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Why symptom management is important for COVID-19 pts?

- COVID causes severe symptoms
- There is no virus-specific treatment yet
  - Symptom management will be the main treatment
- Some patients’ GOC will be comfort measures only and no hospital transfer
  - You should know how to treat symptoms
  - No palliative care consult is available in nursing homes typically
- COVID19 pt with mild symptoms may not be referred to hospice
  - Therefore, you need to know how to manage symptoms
Symptoms of COVID-19

Common
● Fever
● Cough
● Shortness of breath

Less Common
● Chills
● Sore throat
● Muscle pain
● Chest pain
● New loss of taste or smell
● Nausea
● Diarrhea
Clinical Course

Figure 1: Clinical courses of major symptoms and outcomes and duration of viral shedding from illness onset in patients hospitalised with COVID-19. The figure shows median duration of symptoms and onset of complications and outcomes. ICU=intensive care unit. SARS-CoV-2=severe acute respiratory syndrome coronavirus 2. ARDS=acute respiratory distress syndrome. COVID-19=coronavirus disease 2019.
The four types of clinical courses of COVID19 in nursing homes

- **Indolent course, deadly**
  - Initial 24-28 hours of fever and severe respiratory symptoms
  - Stabilization for 3-5 days
  - Decompensation on days 5-7 with death within 24 hours

- **Acute respiratory failure**
  - Symptoms begin with fever and acute respiratory failure with death within 6-12 hours.

- **Sepsis-like picture**
  - Sudden onset of AMS, hypoxia and hypotension without fever

- **Indolent course, convalescence**
  - Majority of our patients. Same course as indolent to death although continued improvement over 7-10 days.

Source: Lessons Learned from the COVID-19 Outbreak at Canterbury Rehab, 3/29/2020 (by Dr. Jim Wright)
Asymptomatic Patients in Nursing Homes

The residents (N=76) in a facility in King County, WA, were offered COVID19 testing as part of a facility-wide point-prevalence survey.

48 of the 76 residents were positive for COVID19.

27 of the 48 residents (56%) were asymptomatic at the time of testing.

However, 24 of the 27 residents subsequently developed symptoms (median time to onset, 4 days).

Prognosis of Nursing home residents

101 residents (median age 83, range 51 to 100) at a LTC in King County, WA, tested positive for COVID19

- Hospitalization 54.5% (55 of 101)
- Fatality rate 33.7% (34 of 101)

Important Points of the COVID-19 clinical course

- Difficult to predict which patients deteriorate
- Many pts recover but others die
- If severe respiratory distress happens, pt dies rapidly (hours to a few days)
- Onset of symptoms to death is relatively short (7 days)

That means….

- Clarification of the goals of care is crucial (especially if the goal is comfort)
- Prepare for rapid development of severe dyspnea
- Family needs to be informed of the possible rapid decline so that they won’t be surprised
- It may be challenging to decide the timing of hospice referrals
General considerations

● Goal clarification is crucial
  ○ Should be value-based
  ○ Uses the values as a guide for treatment (otherwise, you can get lost)
  ○ The aggressiveness of symptom management changes based on the goal

● Prescribe Comfort Kit EARLY

● Back up plan for management of severe dyspnea
  ○ May need IV/SQ meds or sedation

● Review existing medications
  ○ DC unnecessary meds
  ○ Reduce the frequency of meds
  ○ These can reduce the unnecessary exposure of nurses to the virus

● Consider introducing video monitoring

● Communication with family is crucial

● IDT approach is crucial
Preparing for COVID-19: Three Things to Know

1. Pick someone to be your health care decision-maker.
   Choose someone you trust to make decisions for you if you become too sick to make them yourself.

2. Talk about what matters most to you.
   Talk to those who matter most to you about what matters most to you.

3. Think about what you would want if you became seriously ill with COVID-19.
   Think about what worries you most about becoming seriously ill, what’s most important to you, and what kind of treatments you would want.
Pharmacodynamics of Opioid

<table>
<thead>
<tr>
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<th>Peak effect</th>
<th>Duration of effect</th>
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<tbody>
<tr>
<td>PO</td>
<td>30-60 min</td>
<td>3-4 hours</td>
</tr>
<tr>
<td>IV</td>
<td>5-15 min</td>
<td>3-4 hours</td>
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Time to peak effect is the same for analgesia, relief of dyspnea, and sedation.

That means that the pt needs to be assessed 1 hour after PO opioid for an effect.

(Waiting longer does not give additional effect)

Duration of the effect can prolong to 6 to 8 hours depending on renal/hepatic function.
Opioids in Renal Impairment

Even though morphine is usually the first choice, Morphine is NOT recommended for CrCl < 30 (not creatinine)

Safer opioids in renal failure

1. Fentanyl (and methadone)
2. Hydromorphone
3. Oxycodone
Symptoms to Cover

- Dyspnea
- Cough
- Excess secretions
- Acute pain
- Delirium
Dyspnea: Assessment

- Dyspnea is subjective
- Do not rely on SpO2
- Dyspnea may be described as breathlessness, inability to take a deep breath, “air hunger,” or chest tightness.
- The patient may engage in pursed-lip breathing and also may express anxiety, fear, or panic.
Assessment of dyspnea on patients with dementia

- Do: Ask them about their current state (“Do you have any trouble breathing now?”)
- Don’t: Ask them about the past dyspnea (you would get just confused)
- Try other words (choking, tightness, gasping for air, etc.)
- Give time for a response
- Pay attention to nonverbal clues: grimacing/frowning, irritability, respiratory rate, SpO2
- They may not call the nurse for help (Proactive assessment is the key)
Assessment of dyspnea on patients with AMS

- Can be challenging to assess dyspnea
- Assume they still suffer from dyspnea
- Pay close attention to facial expressions, labored breathing, RR, SpO2
- Sometimes RR does not go down even after treatments (especially if it’s from metabolic acidosis)
Treatment of dyspnea

Non-Pharmacological Interventions:

- Bring pt upright or to sitting position
- Use oxygen if SpO2 < 90%
  - Nasal canula Max 5L
  - High flow or BiPAP are not recommended due to production of aerosols

If bronchospasm (wheezing, rhonchi) is noted:

- Use albuterol inhaler with spacer
  - Nebrizer treatments are not recommended due to production of aerosols
- May use steroid with caution
  - the existing literature does not currently provide conclusive evidence for or against the use of steroids
Opioids for dyspnea

- Opioids are the treatment of choice for refractory dyspnea
- Any kinds of opioids work for dyspnea
- Use PRN first, then consider to use those medications “around the clock” to prevent undertreatment (dementia or somnolent pt do not ask for PRN)

Dosing Tips:

Opioid naive pt

- PO morphine 5 to 10mg
- PO oxycodone 2.5 to 5mg
- IV/SC morphine 2 to 4mg
- If pt is actively dying or under comfort measures, use opioid aggressively and add benzo as needed
- Preference on IV opioids for severe dyspnea
  - Remember that pt can develop severe dyspnea very quickly
  - Quick action and rapid titration
- Do not be afraid to use opioids for dyspnea especially if the goal is comfort. Undertreating dyspnea is much worse than the risk of opioid toxicity
  - Double effect: If the intention is to provide relief from suffering, some possible toxicity is acceptable
- Consult to palliative care specialist if they are available for severe dyspnea

Flowchart:
- Refractory Dyspnea
  - Manage underlying causes of dyspnea
    - Is the patient hypoxic?
      - Yes: Manage underlying causes of hypoxia
      - No: Non-pharm Interventions
        - Is patient comfort care or actively dying?
          - No: Still dyspneic?
            - No: Opioid IV q15 min PRN dyspnea
            - Yes: Opioid PO q2h PRN dyspnea, Opioid IV q1h PRN dyspnea, Titrate to relief, Avoid benzos
          - Yes: Consult to palliative care specialist if they are available for severe dyspnea

Cough

- Codeine: Duration of action is 4 hours; usual adult dose is 10-20 mg every 4-6 hours.
- Dextromethorphan: Duration of action 3-6 hours; usual adult dose is 10-20 mg every 4-6 hours.
- All opioid analgesics have anti-tussive activity
- It is unclear whether adding a second opioid such as codeine for cough is effective
- Nebs are not recommended for COVID
- Albuterol inhaler may help
Excess secretions

- **Expectorants: Guaifenesin**
  - Stimulate the cough reflex, and also induces a vagally mediated increase in airway secretion.

- **Drying agents: Anticholinergic agents such as scopolamine and glycopyrrolate**
  - May be very helpful for excessive mucus production.
  - Watch for anticholinergic side-effects (dry mouth, urinary retention), or over-drying (may cause mucus plugging)
  - Glycopyrrolate does not reach the brain (i.e. does not cause delirium)

- **Bronchodilators: Beta-adrenergic agonists and drugs containing aminophylline**
  - Improve mucus clearance by increasing ciliary activity

- **Suctioning:** For many patients with a weak cough reflex, gentle suctioning can be very helpful. However, deep suctioning should be avoided and can be very irritating.

- **Terminal secretion:** Family education is more important
Acute Pain

- Pain assessment on patients with dementia can be quite challenging
  - Use scales (e.g. PAINAD)
  - Do: Ask about current state and give them the time to respond
  - Don’t: Ask about the past or the time course

- Somnolent patient
  - Use facial expression, body posture, restlessness as indicator
  - Trial of opioid to see if it change the nonverbal clues

- Use acetaminophen first (e.g. 1g q8h PRN)
  - Max dose in geriatric population = 3g per day
  - Avoid NSAIDs in COVID19

- Use opioids as needed
PAINAD (Pain Assessment In Advanced Dementia) scale

- A useful scale for assessing pain in nonverbal patients with dementia
- Assesses five domains
  - Breathing, negative vocalization, facial expression, body language, and consolability
- Sensitivity 92%, specificity 61%
- Can be used for following up on the effectiveness of treatments

1. Full examination:
   a. Look for the source of pain/distress including constipation, urinary retention
   b. Ensure the environment is safe to prevent falls and injuries
2. Non-pharmacological approach
   a. Optimize environments
   b. Review medications
   c. Reduce tethers
3. Pain is the leading cause: Try acetaminophen or one dose of opioids
4. Give haldol (e.g. 0.5-1mg PO/SL q1-4h PRN)
   a. May use other atypical antipsychotics
5. Give lorazepam (e.g. 0.5-1mg PO/SL q1-4h PRN)
   a. Works better especially for terminal delirium
Comfort Kit

- Consider prescribing a comfort kit early even if pt is not in hospice
  - Especially if the goal is comfort
- Medications:
  - Morphine sulfate solution (20mg/ml)
  - Lorazepam
  - Haldol
  - Glycopyrrolate (or scopolamine, atropine)
Other symptoms

- **Fever**
  - Use acetaminophen

- **Nausea**
  - Ondansetron 4-8mg PO q8h PRN
  - Metoclopramide 10mg PO q6-8h PRN
  - For opioid induced nausea, give either of them 30 min before opioids

- **Diarrhea**
  - Loperamide prn

- **Opioid-induced constipation**
  - If pt is on an opioid, start senna 2T daily. May increase up to 4T BID.
  - Use dulcolax supp and warm water enema as needed
Communication with Family

- Frequent, regular communication by staff (assign who will call family)
- Expect emotion (respond with NURSE statements)
- Explain to them what to expect (e.i. There is a chance of rapid decline)
- Check facility policies on when they can see their loved one (when they are dying)
- IDT approach (SW, grief counselor, chaplain)
- Discussing funeral options can be crucial
  - Make sure which funeral place can accept COVID patients

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<tr>
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<th>Example</th>
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<tbody>
<tr>
<td>Naming</td>
<td>“It sounds like you are frustrated”</td>
</tr>
<tr>
<td>Understanding</td>
<td>“This helps me understand what you are thinking”</td>
</tr>
<tr>
<td>Respecting</td>
<td>“I can see you have really been trying to follow our instructions”</td>
</tr>
<tr>
<td>Supporting</td>
<td>“I will do my best to make sure you have what you need”</td>
</tr>
<tr>
<td>Exploring</td>
<td>“Could you say more about what you mean when you say that...”</td>
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“LOVE”: Saying goodbye via phone or video

Lead the way forward

“I am [name], one of the [professionals] on the team.”

“For most people, this is a tough situation.”

“I’m here to walk you through it if you’d like.”

“Here’s what our institution / system / region is doing for patients with this condition.”
(Select the part directly relevant to that person.)

Offer the four things that matter to most people

“So we have the opportunity to make this time special.”

“Here are five things you might want to say. Only use the ones that ring true for you.”

“Please forgive me”

“I forgive you”

“Thank you”

“I love you”

“Goodbye”

“Do any of those sound good?”
Validate what they want to say

“I think that is a beautiful thing to say”

“If my [daughter] were saying that to me, I would feel so valued and so touched.”

“I think he/she can hear you even if they can’t say anything back”

“Go ahead, just say one thing at a time. Take your time.”

Expect emotion

“I can see that he/she meant a lot to you.”

“Can you stay on the line a minute? I just want to check on how you’re doing”
Take Home Message

- Acknowledge the uncertainty of the clinical course and prepare for a possible rapid decline
- Confirm the goals of care (pay attention to what matters most)
- Use opioids for refractory dyspnea
- Consider prescribing a comfort kit early
- Communication with family is crucial
Resources

- CAPC: https://www.capc.org/toolkits/covid-19-response-resources/
- Fast Facts: https://www.mypcnnow.org/fast-facts/
- VitalTalk: https://www.vitaltalk.org/
- Kokua Mau: https://kokuamau.org/covid-19-resources/
- PROBARI: Symptom Management Support for COVID-19 in the Nursing Home