Covid-19 in LTC

Goals

1. Report atypical manifestations of pneumonia in older adults
2. Describe epidemiology of Covid in older adults
3. State how to minimize spread of aerosolized infections in LTC
4. Apply Covid treatments and palliative care
Common Covid-19 symptoms

- fever (82.1%),
- cough (45.8%),
- fatigue (26.3%),
- dyspnea (6.9%)
- headache (6.5%)

Wuhan Report

Infections manifest differently in older adults

- Less likely to mount fever.
- > 102 F is bad prognostic sign
- Don’t count on increased RR AD patients can’t smell
- Look for atypical presentations
  - Confusion
  - Falls
  - Anorexia
  - Diarrhea
  - Fatigue
Age – dependent differences in Covid-19

**Young and Middle Aged**
- Fever
- Cough
- Shortness of breath or difficulty breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- Loss of taste and smell

**Older Adults**
- Change in functional status
- Confusion / hypoactive delirium
- Fatigue
- Increased sleepiness
- Loss of appetite
- Nausea / vomiting
- Abdominal pain
- Diarrhea
- Faintness / lightheaded
- Falls

Older Adults do not get tachypnea until respiratory failure!
Very sick Covid-19

• Trouble breathing
• Persistent pain or pressure in the chest
• New confusion or inability to arouse
• Bluish lips or face

Risk for severe Covid-19

• Age
• Gender: male 73.5% vs. female 50.9%,
• Hypertension 53.1% vs. 16.7%,
• Diabetes (14.3% vs. 5.0%),
• Cardiovascular diseases (8.2% vs. 1.6%),
• Malignancy (4.1% vs. 0.7%)
65 + and Covid-19

- 31% of cases,
- 45% of hospitalizations,
- 53% of ICU admissions,
- 80% of deaths

Covid-19 Mortality Rates

- 65 – 84 year olds: 8 – 11%
- 85 + year olds: 10 – 27%
Long Term Care

• Keep COVID-19 from entering your facility
• Identify infections early
• Prevent spread of COVID-19
• Assess supply of personal protective equipment (PPE) and initiate measures to optimize current supply
• Identify and manage severe illness

Keep Covid – 19 out

- No visitors
- Screen staff
- Screen patients
- Fomite disinfection
- Temperature q shift
- Symptoms
- Loss of appetite
- New or worsening confusion
- Diarrhea
Keep Covid-19 out

Environmental re-design

- Plexi glass barriers at work stations
- Separate living zones for high and low functioning residents
- Aggregate and zone - off wanderers
- Hot zone?
- Assign staff to one zone, avoid cross over
- No common room meals or entertainment

Practical Considerations for Reducing the Risk of Transmission in the Workplace

1. Avoid unnecessary contact (eg No handshaking, hugging, etc.)
2. Use knuckle or pen to flip light switches or push elevator buttons; Open doors with a closed fist or hip if possible
3. If you are sick, stay home
4. Wash hands thoroughly with soap for 10 to 20 seconds and/or use a greater than 60% alcohol-based hand sanitizer after ANY activity that involves contact with others
5. Maintain a supply of sanitizer and tissues at each facility entrance and at regular intervals around the facility
6. Disinfect high use work items frequently (eg phones, computer keyboards and mouse, etc.)
7. If possible, cough or sneeze into a disposable tissue and discard; Use your elbow only if you have to
8. Launder clothing and linens regularly; Clothing and linens/towels can contain infectious virus that can be passed on
9. Consider keeping your hands in your pockets when about, to keep you from touching things that don’t need to be touched
Contain Covid-19

• PPE: facemask, not cloth for health care personnel
• Cloth face mask OK for resident

LTC challenges

Challenges
• No bench players for back up
• Double shifts, reduced attention to hygiene
• Inadequate PPE
• What to do with recovered Covid SNF resident

Potential solution
• SNFs create a pool of “on-call” staff
• Sick leave and on call salaries
• Adequate staff time off
• Sequester PPE to “hot zones”
• Avoid aerosol treatments
  • Spacers for handheld nebulizer
Covid-19 treatment from VA study

**Palliative Care for COVID-19**

### Relief of Dyspnea

**Pharmacodynamics of Opioids:**
- Time to peak effect / Duration of Action
- IV Opioids: 5-15 minutes / 3-4 hours
- Time to peak effect is the same for analgesia, relief of dyspnea, and sedation

**Other Opioid Principles:**
- If initial dose of IV opioid is ineffective after 2 doses at least 15 minutes apart, double the dose
- Typically need 6-8 hours of controlled symptoms to calculate a continuous opioid infusion
- If starting a continuous infusion, do not change more often than every 6 hours
- Adjust infusion dose based on the 24 hour sum of PRNs

**Non-Pharmacologic Interventions:**
- Bring patients upright or to sitting position
- Consider mindfulness, mindful breathing

**Pharmacologic Interventions:**
- Opioids are treatment of choice for refractory dyspnea
- For symptomatic patients, using PRN or bolus dosing titrated to relief is more effective and safe compared to starting an opioid infusion

**Dosing Tips:**
- For opioid naive patients
  - PO Morphine 5-10 mg
  - PO Oxycodone 3-5 mg
  - IV/SC Morphine 3-4 mg
  - IV/SC Hydromorphone 0.4-0.6 mg
- Consider smaller doses for elderly/frail

**Opioid Quick Tips**

**Relative Strengths & Conversion**

<table>
<thead>
<tr>
<th>Opioid Agent</th>
<th>Oral Dose</th>
<th>IV Dose</th>
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<td>Morphine</td>
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<td>10</td>
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<tr>
<td>Oxycodone</td>
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<tr>
<td>Hydromorphone</td>
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*Avoid fentanyl due to shortage

**If Using Opioids, Start a bowel regimen:**
- Give 1 SML OS or QOD, re-energizing
- Senna 2 tabs q HS, can increase to 4 tabs BID
- Add Mirilax 17 g ph daily, can increase to 32 g
- Bisacodyl 10 mg suppository if no BM in 72 hrs
Pain or SOB or intractable Cough

Morphine liquid: 10 mg per 5 ml, take 2.5 ml every 30 minutes until relief. Increase to 5 ml if no relief from starting dosage.

Morphine tablets 15mg: ½ tablet PO every 30 minutes until relief. Increase to 1 tablet if no relief from starting dosage.

IV or SQ: Morphine 5mg IV or SQ every 30 minutes until relief. Increase to 10 mg if no relief from starting dosage.

Agitation or Confusion

Pain control empirically:
- Acetaminophen
  - MSM
- Haloperidol
  - Liquid 2 mg / ml: give ½ ml to ⅓ ml by mouth or under tongue every hour until relief or calm.
  - Tablets: 1 mg tablet, give half tablet every 1 hour until calm.
Nausea & Vomiting

• Metoclopramide (liquid or pill): 10 mg every 6 hours.
• Ondansetron: 4 mg every 8 hours, increase to 8 mg if necessary.

• IV or SQ: Metoclopramide 5 mg/ml, give 1 ml every 6 hours  OR  Ondansetron: 0.15 mg/kg IV every 8 hours

Resources

Palliative care in LTC

• https://pallicovid.app/
• www.capc.org/toolkits/Covid-19-response-resources/

General information

• https://paltc.org/COVID-19
Resources

• Dosa, D., Jump, RLP, LaPlante, K et al. Long Term Care Facilities and the Coronavirus Epidemic: Practical Guidelines for a Population at Highest Risk. 2020. JAMDA 21:569 – 571
  https://doi.org/10.1016/j.jamda.2020.03.004