COVID-19: THE USE OF TELEMEDICINE IN NURSING HOMES DURING THE PANDEMIC

Steven M. Handler, MD, PhD, CMD
Associate Chief of Staff, Geriatrics and Associate Director, GRECC VA Pittsburgh Healthcare System

COVID 19 Clinical Rounds
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Approach to diagnosing COVID-19

- Symptom-based screening may fail to identify all infections
- Symptom assessment may be harder for persons with cognitive impairment or disabilities
- SNFs can take steps to prevent introduction of the virus, including visitation restrictions, staff screening, use/limited reuse of PPE
- Telehealth can prevent the number of people coming in and out of facilities

CDC MMWR, March 27, 2020:  
https://www.cdc.gov/mmwr/volumes/69/wr/mm6913e1.htm?s_cid=mm6913e1_w

Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility — King County, Washington, March 2020

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Anne Kimball, MD1; Kelly M. Hatfield, MSPH1; Melissa Arons, MSc1; Allison James, PhD1; Joanne Taylor, PhD1; Kevin Spicer, MD1; Ana C. Bardossy, MD1; Lisa P. Oakley, PhD1; Sukarma Tanwar, MMed1; Zeshan Chisty, MPH2; Jeneita M. Bell, MD1; Mark Methner, PhD1; Josh Harney, MS1; Jessica R. Jacobs, PhD1; Christina M. Carlson, PhD1; Heather P. McLaughlin, PhD1; Nimalie Stone, MD1; Shauna Clark1; Claire Brostrom-Smith, MSN1; Libby C. Page, MPH1; Meagan Kay, DVM1; James Lewis, MD1; Denny Russell1; Brian Hiatt1; Jessica Gant, MS1; Jeffrey S. Duchin, MD4; Thomas A. Clark, MD4; Margaret A. Honein, PhD4; Sujan C. Reddy, MD1; John A. Jernigan, MD4; Public Health – Seattle & King County; CDC COVID-19 Investigation Team (View author affiliations)
COVID-19 Algorithm for On-Site Respiratory Evaluation in UPMC-Owned Nursing Homes: Updated 03/30/2020

Start

Initial Management

- Place a surgical mask on the resident.
- Maintain the resident and roommate (if applicable) in their room with the door closed and curtains drawn. Uncover both can be relocated within the same wing in private rooms with the same staff.
- Place in standard contact, droplet, and airborne isolation.
- Use airborne (N95 mask in SNF and surgical in all other LTC settings) and contact (gown and gloves) precautions in addition to face shield or goggles when entering the room; if out of N95 mask use surgical mask.
- Triage acuity of patient (vitals, brief Hx & PE, and risk assessment).

Initial Signs/Symptoms in nursing home residents with confirmed COVID-19†
- “Typical 5/5:” New cough, SOB, or Fever ($T_\text{fever} > 99.3\,^{\circ}\text{F})
- “Atypical 5/5:” malaise (17.4%); nausea (13.0%); sore throat (8.7%); confusion (4.4%); Dizziness (4.6%); diarrhea (4.6%)
- Asymptomatic: 56.3%

Follow-Up (1 wk. later) Signs/Symptoms in nursing home residents with confirmed COVID-19†
- “Typical 5/5:” Fever (61.5%); Cough (38.4%); SOB (23.1%)
- “Atypical 5/5:” malaise (46.1%); confusion (30.8%); rhinorrhea/congestion (30.8%); diarrhea (23.1%); sore throat (7.1%); nausea (7.1%); Dizziness (7.1%)
- Asymptomatic: 23.1%

UPMC screening indicators:
- as of 03/20/20

- An illness compatible with a viral respiratory infection,
- Close contact with an individual with suspected or confirmed COVID-19 disease, and, in some cases,
- A travel history (to sites with known high COVID-19 illness frequency).

Microbiology:
- Influenza A and B and RSV RNA, Qualitative, Real-Time RT-PCR
- COVID-19 test request
- Consider blood & sputum cultures

Imaging:
- STAT CXR
- CXR abnormal in 60% (77% if severe)
- Unilateral findings on CXR or CT in 14-25% (asp if mild/early Dx)
- Most common findings: GGO and patchy consolidations >50%, peripheral distribution >50%
- Nodules, LAN, cystic changes, effusion in <10%
- Median WBC 4.7, w/ leukopenia in 37-43% (leukocytosis in <23%)
- Lymphopenia in 33-85%
- Median platelets normal, slight ↓ in <35%
- AST/ALT ↑ in 4-35%

Additional labs:
- CBC w/ Diff
- Comprehensive metabolic panel

In patient clinically unstable w/ severe:
- Dyspnea, hypoxia, or Fever
- AND
- Advance Directive Supports Transfer

Unstable AND Advance Directive Supports Transfer

If in patient clinically unstable w/ severe:
- Ramp the resident to the ER/ICU
- Notify ED and ED of intention to transport for possible COVID-19 and be able to address the Pittsburgh ED Screening Questions (See next page)
- OR
- Continues to wear surgical mask
- PPE for transporters: gloves & gown, surgical mask with eye protection

MMWR March 27, 2020 Vol. 69: NOTE: Symptom-based screening of NH residents might fail to identify all SARS-CoV-2 Infections. Asymptomatic and pre-symptomatic SNF residents might contribute to SARS-CoV-2 transmission.

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Forward triage: combining telehealth and paramedicine

• Triage can begin during 9/11 call, even before transport service initiated
• Paramedics use telehealth to initiate remote treatment on-site, reducing need for transport and increased risk of exposure for patient
• We are using this model here in Allegheny County partnering with UPMC, U Pitt, EMS
Potential benefits of forward triage in the nursing home

- Extending the practice of Paramedics in times of resource constraint with UPMC TeleEmergency Triage
- Providing real-time decision support for emergent management of both adult and pediatric patients
- Assessing patients and allowing for alternative care destinations including non-transport
- Providing clinical guidance for emergent management and notification to the receiving facility
- Reducing risk to other patients and providers
- Improving patient and provider outcomes
- Improving patient and provider satisfaction
Goal-concordant care

• Residents should have discussions with their primary care team to ensure and drive goal-concordant care using frameworks such as:
  • Respecting Choices 
    - https://respectingchoices.org/covid-19-resources/#planning-conversations
  • VitalTalk
    - https://www.vitaltalk.org/guides/covid-19-communication-skills/

• The end-result should be the development of advance directives such as:
  • Physician-Orders for Life-Sustaining Treatment (POLST)
    - https://polst.org/covid/
  • Five Wishes
    - https://fivewishes.org/five-wishes-covid-19
Centralization of staffing and clinical resources

• Provide a single number/point of entry for consult requests
• Ensure access to a qualified, responsive, knowledgeable and dedicated provider workforce
• Complete and share clinical documentation in a timely manner
• Standardize clinical approach using best evidence and most current recommendations
• Coordinate transitional care with pre-hospital transport
VA PHS Approach to Diagnosing and Treating COVID

- Opened a COVID Recovery Unit (CRU) within our Community Living Center (CLC)
- Developed admission, discharge and transfer criteria
- Developed criteria for how and when to use telemedicine within the CRU to across the various clinical service lines to reduce potential spread:
  - Changes of condition (e.g., worsening respiratory status)
  - Subspecialty consults (e.g., ID, behavioral health, wound care)
  - Ancillary services (e.g., PT/OT/Speech therapy)
- How to assess and provide individual iPads for social/spiritual purposes
- Assisting State Veterans Homes with telemedicine for similar use cases
QUESTIONS?

steven.handler@va.gov