Medicine
UNIVERSITY OF TORONTO

UNIVERSITY OF CALGARY

COVID-19 in Older Adults

Resource prepared by:
Jayna Holroyd-Leduc, MD, FRCPC, Geriatric Medicine Division Head, University of Calgary
Barbara Liu, MD, FRCPC, Geriatric Division Director, University of Toronto
Alana Miller, MD, PGY4 Geriatric Medicine, University of Toronto
Dmitriy Petrov, MD, PGY4 Geriatric Medicine, University of Toronto

Last revised 2 April 2020

Atypical COVID 19 Presentations in Frail Older Adults

- Typical symptoms of COVID-19 such as fever, cough, and dyspnea may be absent in the elderly despite respiratory disease (1)
- Only 20-30% of geriatric patients with infection present with fever (1)
- Atypical COVID-19 symptoms include delirium, falls, generalized weakness, malaise, functional decline (1), and conjunctivitis, anorexia, increased sputum production, dizziness, headache, rhinorrhea, chest pain, hemoptysis, diarrhea, nausea/vomiting, abdominal pain, nasal congestion, and anosmia (2)
- Tachypnea, delirium, unexplained tachycardia, or decrease in blood pressure may be the presenting clinical presentation in older adults (2)
- Threshold for diagnosing fever should be lower, i.e. 37.5°C or an increase of >1.5°C from usual temperature (3)
- Atypical presentation may be due to several factors, including physiologic changes with age, comorbidities, and inability to provide an accurate history (4)
- Older age, frailty, and increasing number of comorbidities increase the probability of an atypical presentation (1)
- Older adults may present with mild symptoms that are disproportionate to the severity of their illness (1)

Optimized care for older adults with suspected or confirmed COVID-19

- Anticipate atypical presentations in patients over the age of 75 (1)
- Educate older adults and their caregivers regarding mild symptoms that may represent disease (1)
- Be aware that frail older adults with atypical symptoms have more adverse outcomes compared to well elderly with typical presentations (4)
- Be aware that mortality rises rapidly with age – 14.8% for octogenarians (5)
- As symptoms may be unreliable, consider early diagnostic testing
- Other investigations (as in younger adults):
    - Blood work: CBC with differential, lytes, Cr, LEs/LFTs, LDH, CRP, ferritin (6)

    - CT chest: typical findings are focal unilateral ground glass opacities rapidly evolving to bilateral diffuse ground glass opacities (7)
- Co-infections (e.g. influenza, human metapneumovirus) have been reported. Co-infection with influenza has been reported to be 0.5% (4)

Older adults presenting with delirium - Could this be COVID-19?

Consider COVID-19 as the cause of delirium (i.e. perform a COVID-19 swab and initiate isolation precautions) if any of the following are present:

- Symptoms are suggestive – even if only mild ILI (influenza-like illness) symptoms or low-grade temperature are present
- History of COVID exposure or exposure to others with ILI symptoms
- Hypoxia otherwise unexplained, even if mild (SaO2 <90%)
- Rapid clinical deterioration
- No other clear reason for delirium identified (note: be very careful to dismiss delirium as being 2' to UTI in supportive living or long term care populations given the high rates of bacterial colonization/bacteruria)
- CXR consistent with pneumonia (unilateral or bilateral)

References

1. Jung, YJ, Yoon JL, Kim HS, Lee AY, Kim MY, Cho JJ. Atypical clinical presentation of geriatric syndrome in elderly patients with pneumonia or coronary artery disease. Ann of Geri Med and Res. 2017;21(4):158-63.
2. Dadamo H, Yoshikawa T, Ouslander JG. Coronavirus Disease 2019 in geriatrics and long-term care: The ABCDs of COVID-19. J Am Geriatr Soc. 2020. doi: 10.1111/jgs.16445. [Epub ahead of print]
3. Jarrett PG, Rockwood K, Carver D, Stolee P, Cosway S. Illness presentation in elderly patients. Arch Intern Med.1995;155(10):1060-4.
4. Malone ML, Hogan TM, Perry A, Biese K, Bonner A, Pagel P, Unroe KT. COVID-19 in older adults - Key points for emergency department providers. J of Geri Emerg Med. 2020;1(4):1-11.
5. Clerkin KJ, Fried JA, Raikhelkar J, Sayer G, Griffin JM, Masoumi A, Jain SS, Burkhoff D, Kumaraiah D, Rabbani L, Schwartz A, Uriel N. Coronavirus Disease 2019 (COVID-19) and cardiovascular disease. Circulation. 2020. doi: 10.1161/CIRCULATIONAHA.120.046941. [Epub ahead of print]
6. Lippi G and Plebani M. Laboratory abnormalities in patients with COVID-2019 infection. Clin Chem and Lab Med. 2020. doi: 10.1515/cclm-2020-0198. [Epub ahead of print]
7. Shi H, Han X, Jiang N, Cao Y, Alwalid O, Gu J, Fan Y, Zheng C. Radiological findings from 81 patients with COVID-19 pneumonia in Wuhan, China: a descriptive study. Lancet Infect Dis. 2020 Apr;20(4):425-434.