PREVENTING THE SPREAD OF COVID-19 TO NURSING HOMES: EXPERIENCE FROM A SINGAPORE GERIATRIC CENTRE

To the Editor: COVID-19 is a global pandemic with extensive community spread in many countries. Older adults and those with chronic medical comorbidities are seen as particularly vulnerable. The effects when COVID-19 reaches nursing homes have been devastating, accounting for a disproportionate number of deaths, particularly in the United States.

Despite COVID-19 reaching our shores nearly 2 months ago, there has not been a single case of transmission in nursing homes in Singapore. To date, only one case of possible COVID-19 transmission has occurred in an acute hospital in Singapore.

Since COVID-19 hit Singapore, various measures have been rolled out nationally to mitigate the spread of the highly contagious virus including the restriction of visitors to all healthcare institutions, prescreening of visitors, and reduction in unnecessary transfer of patients.

Nursing home patients admitted to the hospital have to be managed carefully. They have high rates of pneumonia and it can be difficult to differentiate between aspiration pneumonitis and pneumonia. Previously, selected nursing home residents with fever and respiratory symptoms could have a trial of oral antibiotics on site or be treated conservatively if they had an advanced care plan.

However, in view of the public health consequences of COVID-19, nursing homes now refer all patients with fever and respiratory symptoms to acute hospitals to rule out the virus. All nursing home patients admitted to our institution with acute respiratory infections are isolated in negative pressure rooms and tested once for COVID-19 if the clinical suspicion is low. If there is significant concern, some patients may even be subject to a repeat swab before transfer to a general ward. Contingency plans have been made to cohort patients with respiratory symptoms and pneumonia in designated wards if cases exceed the capacity of our isolation facilities. At present we have not yet had to resort to this alternative. In addition, on discharge, nursing homes have begun to request letters from hospitals to certify that returning residents do not have COVID-19. Such heightened vigilance has prevented the spread of a single COVID-19 case to nursing homes in Singapore.

The isolation of nursing home patients has led to some negative consequences. Fall rates in isolation facilities are much higher than that in general wards. Restraint use has also gone up, whereas our geriatric medicine ward practices a no-restraint policy. Nursing home patients in particular have higher rates of dementia, delirium, and behavioral issues that require greater nursing care, which is challenging in isolation facilities, especially in the context of a global pandemic. These are inevitable given that protection of healthcare workers is a priority, and it is difficult for healthcare staff to attend promptly to patients in isolation facilities with behavioral issues and cognitive impairment because they would need to don full personal protective equipment before any patient contact. In addition, we have started to use technology such as the Beam robot to minimize patient contact, with plans to roll these out to other institutions. However, the use of technology has limitations, especially when dealing with older patients.

Preventing the spread of COVID-19 to long-term care institutions is a priority, and rigorous heightened measures should be put in place to ensure this.

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SPECIAL ISSUES ON USING THE MONTREAL COGNITIVE ASSESSMENT FOR TELEMEDICINE ASSESSMENT DURING COVID-19

To the Editor

The coronavirus disease 2019 (COVID-19) crisis has accelerated the need for cognitive screening adapted to telemedicine. Understandably, clinicians are trying to use tools...
in hand. As codevelopers of the Montreal Cognitive Assessment (MoCA\(^1\)), we have received inquiries on whether and how to adapt the test, what norms are available, and how to validly assess older adults with hearing and/or vision loss.

There are modified MoCA versions, including one for telephone administration\(^2\) and some that omit visual or auditory items with validated cutoff scores.\(^3\) The MoCA website issued an e-mail (March 20, 2020) stating that it has been validated for remote testing. To our knowledge, there are no published validated remote testing adaptations with norms for key groups of interest, including those with assessed sensory abilities.

Telephone-alone and videoconference (i.e., remote) administrations present special challenges.

1. **Interpreting test results from remote administrations requires full understanding of the examinee’s vision and hearing abilities.** Age-related hearing, vision, or dual-sensory loss is highly prevalent (80%\(^5\)). One cannot assume intact sensory abilities, and the sensory modality influences test performance.\(^3\)\(^,\)\(^6\) As a minimum, the examiner should ask:
   a. Hearing: “How would you characterize your hearing (with a hearing aid if you use one)?”, “Is it difficult to follow a conversation if there is background noise, such as a radio, even if using a hearing aid?”, “Do you use any aids, specialized equipment, or services for persons who are hard of hearing and, if so, which?”;
   b. Vision: “How would you characterize your eyesight (using glasses or corrective lenses if you use them)?”, “Besides glasses or contact lenses, do you use any aids or specialized equipment for persons who are blind or visually impaired and, if so, which?”;
   c. Note that assistive devices should be used during the examination.

2. **Test administration will be nonstandardized due to variation in devices used to deliver (the examiner) and receive (the examinee) the information.** Persons with reduced hearing are disadvantaged by the impoverished conditions of telephone communication (reduced range of speech frequencies, absence of visual speech cues). Sound fidelity will vary across different telecommunication devices (landline, cell phone, VoIP, speakerphone). For videoconferencing, camera resolution, visual display size, and lighting conditions add important variation to the information transmitted and received. Poor-quality sensory input affects the cognitive performance of persons with normal cognitive and sensory abilities and will likely be more problematic for persons with sensory and/or cognitive limitations.\(^7\)\(^,\)\(^8\)

3. **One cannot alter subtest items or mode of administration and assume the same cognitive abilities are assessed.** A participant may misperceive words (face vs faith) in the absence of visual speech cues. How loudly does a participant need to tap during the letter subtest for it to be audible over the telephone? Is a “missed” item due to perception problems on the part of the tester, the participant, or a lapse of attention? How does one ensure integrity in the testing environment (e.g., participants writing down the words to remember)? It is difficult to gauge how well an examinee can engage or maintain attention in the absence of visual information. Finally, one cannot alter the mode of test stimulus delivery, or the mode of response, or the test items themselves and assume that the same cognitive constructs are being tested as in the original (e.g., asking the participant to explain the trail making; as per the e-mail of March 20, 2020, and other proposed changes\(^9\)).

4. **In the absence of studies using standardized conditions with well-described control and clinical participants with measured sensory abilities, the use of any cutoff score will be suspect and must be used with caution (if used at all).** We simply cannot assume that conventional cutoff scores will apply when there is variation (which is often unknown or unmeasured) in telecommunication devices, testing environments, and the sensory and cognitive abilities of examinees. Instead, we believe the MoCA can be used to generate clinical hypotheses and observations, to initiate a more extensive in-person assessment (when conditions allow), and to facilitate referral and case management. We strongly advise against any use of the MoCA during telemedicine for any medicolegal decision making.

The COVID-19 pandemic is having a far-reaching impact on our society, including how we offer clinical services and meet the needs of our aging population. Although we must adapt to the current reality, we must do so thoughtfully, having properly understood the sensory capabilities of our patients, and within the interpretive limits of nonstandardized test administrations.

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TO ALL DOCTORS: WHAT YOU CAN DO TO HELP AS A BUNCH OF OLDER PEOPLE ARE ABOUT TO GET SICK AND DIE

There are about to be very large numbers of sick and dying older people in this country. Reports from other countries indicate that COVID-19 has a low overall mortality, on par with the seasonal flu. However, in adults older than age 80, the numbers are staggering higher, more like 15%. The numbers of critically ill are too great to even ponder. Primary care doctors and emergency department doctors are going to be overwhelmed, but lots of others can help.

We need all of the doctors of the United States—every single one of you—to help take care of this nation’s sick and dying elders. Many of you have had elective procedures and follow-up appointments canceled. Most of you are wondering what to do, probably thinking about how to sign up to help in the emergency department or intensive care unit. As a geriatrician who does house calls for a living, I’m happy to lend my advice on how you, yes you, the orthopedists and gastroenterologists and dermatologists and psychiatrists of the United States, can help stem the tide of new infections and manage the pandemic we are facing, by helping keep your patients at home. Even the pediatricians can help check on their patients’ parents and grandparents.

Your task, should you choose to accept it: Review your list of patients older than age 60. Table 1 will walk you through the next steps.

It will require both massive efforts from individual clinicians and massive coordination from systems and institutions to give our nation’s elders the care that they want and need. If

Table 1. Questions to Ask Yourself as You Care for Your Older Patients

| Question                                                                 | Context                                                                 | Steps you can take                                                                 |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| How do I triage my patients aged ≥60?                                   | Most current clinical algorithms do not differentiate between a 65-year-old and a 95-year-old. Even among older adults of the same age, there are large variations in level of vulnerability and physiologic reserve. | Use validated rapid risk-stratification tools like the FRAIL screen (Figure 1), the Clinical Frailty Scale, or eprognosis.org to group older adults into categories of robust, vulnerable, and frail. Allot more time and resources for frail patients. |
| How has age contributed to my patients’ physiology?                     | Many practicing clinicians trained at a time when the physiologic changes of aging were not well understood. Although the science has advanced, the dissemination of knowledge still lags. Without those fundamentals, clinicians will miss subtle or variable signs of disease in their older patients, increasing the risk that their patients’ disease will progress. | Familiarize yourself with the physiologic changes of aging, especially the respiratory system. Know, at minimum, that chief complaints and presentations are a lot less specific with age. An 85-year-old with an acute respiratory illness might present first, before the onset of fever, shortness of breath, and hypoxia, with delirium, fatigue, (pre)syncope, or a “mechanical” fall. Orthostatics are the most valuable vital sign change. |
| How can I take care of patients without them coming into clinic or the hospital? | To prevent the spread of infection, many health systems have limited outpatient visits. This could lead to older adults going without necessary care and thus decompensating from other illnesses. | Be proactive and reach out to your previously-identified frail patients. Call them or do a video visit. Family members can often help navigate telehealth. If you need physical exam data, utilize home health agencies; visiting nurses can extend the reach of care. CMS has recently loosened the requirements for ordering home health services, equipment, and oxygen. If that is not sufficient, perform a house call. |
| How do I perform a house call?                                          | Emergency departments and urgent care centers will be very full as COVID-19 spreads, and there will be less availability for patients with other needs. Clinicians must adapt to help | Work with your practice partners to create a geographically efficient strategy. Have administrative staff call and screen for unanticipated obstacles, such as a broken |

(Continues)