Cognitive screening in a pandemic

by Christopher Frank MD CCFP(COE) FCFP

Medical practice has changed dramatically during COVID-19. It appears that many of these changes will be incorporated into standard care when the pandemic finally comes to a halt. Some of these changes will be beneficial for patients, but we still have much to learn about how to adapt our usual clinical practices into virtual assessments. This is particularly true for assessments of older adults.

A recent paper in the CGS Journal of CME summarizes options for phone or video assessment of cognition and is free to access (https://canadiangeriatrics.ca/2020/05/virtual-approaches-to-cognitive-screening-during-pandemics/). Even when we return to face-to-face office visits, there will be great benefits for many of my patients if they do not have to come to see me to assess and monitor cognition.

Cognitive assessment requires a history of onset, nature, and progression of impairment, as well as review of medications and medical conditions. Assessment should focus on function, ideally with corroboration from family/ caregivers. A physical examination is needed at some point to look for neurological findings, including Parkinsonism, and to rule out significant illness that might worsen cognition. Physicians need to interpret the findings in context of the patient's vision, hearing, and education level. Once dementia is diagnosed, monitoring for functional loss, and development of challenging behaviors or safety issues is crucial.

With the exception of the physical exam (and you can at least identify Parkinsonism on video conference!) all of this can be done via technology. A big question is "what screening tools can be used?"

As with all virtual care, the environments should be quiet and ensure privacy. Importantly, the patient should participate without assistance unless requested by the assessor. We have all seen family members try to "help" the patient during office assessments, and monitoring this may be difficult during remote assessments.

Here are some tools that have been validated for use via the telephone or by videoconference. They are likely unfamiliar to clinicians.

1. **Telephone Interview of Cognitive Status (TICS)**- This is derived from the familiar (to older physicians at least) MMSE and takes approximately 5-10 minutes to administer. It assesses orientation, attention, short-term memory, sentence repetition, immediate recall, naming to verbal description, word opposites, and praxis. TICS copyright is apparently held by PAR, which charges for forms and instruction manuals.

2. **Phone-based MMSE Instruments**- There are at least three instruments derived from the MMSE - the Adult Lifestyles and Function Interview (ALFI-MMSE),the Telephone MMSE (T-MMSE),and the TAMS. Telephone-based MMSE scores are highly correlated with the in-person MMSE.

3. **Phone-based MoCA**- There are two versions of the original MoCA, both are similar to the MoCA-Blind. Theyseem sensitive to detecting Mild Cognitive Impairment (MCI) and dementia. The copyright is presumably held by the creators of the MoCA.

There are tools that could be administered remotely but have not been well validated. The Ottawa 3DY is a very

brief cognitive screening tool employed by the Ottawa Regional Geriatric Program. It is composed of four questions that do not require equipment, paper, or pencil; Day of the week, Date, DLROW (WORLD spelled backwards), and Year.

There are barriers to remote assessment, as all family physicians have experienced in recent months. Telephone audio quality is occasionally poor and persons being assessed may have hearing impairment. Educational or language barriers are challenging. There may also be cultural biases in many of the cognitive screening tools. The lack of visual cues during telephone assessments may also be problematic.

Face-to- face, and virtual assessments will hopefully complement each other, with initial assessments done in office and follow up done virtually as much as possible. I look forward to being able to save rural patients a trip to the hospital for assessments that can be done from their homes. Like other clinicians, I feel I have a lot to learn in adapting assessments to new modalities but am excited to see how they can help us provide truly patient-centered dementia care.

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