Consider telehealth technology to perform reliable and valid cognitive screening

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Brief cognitive screening is essential for assessing neurocognitive disorders. Such screening can give clinicians a snapshot of patients' cognitive abilities across a range of disorders and help tailor interventions to yield better outcomes. Appropriate administration of a brief cognitive screening using telehealth technology can improve access to care and treatment planning.

Neurocognitive decline can be a barrier to treatment

Persons with neurocognitive impairment, regardless of the cause, often face barriers when they seek treatment. Memory and attention difficulties often interfere with attending appointments; driving restrictions, smaller social networks, caregiver burden, and medical conditions limit access to care. For such patients, telehealth assessment is a tool that physicians can use to help patients overcome these barriers.

Cognitive screening tools

Brief cognitive assessments need to demonstrate (1) consistent and accurate scores over time (reliability) and (2) that they are measuring the intended cognitive domain (validity). The Mini-Mental State Examination is used often; the Montreal Cognitive Assessment and the Short Blessed Test are additional cognitive screeners that have support in the literature for use with telehealth technology.[1]

Telehealth assessment modalities

Modalities for telehealth assessment[2] include:

• **Audio-based systems.** *Pro*: Telephone-based telehealth screening usually does not require extra equipment or advanced planning. *Con*: Visual information is absent and there is overreliance on verbal tasks.

• **Video-based systems.** *Pro*: Using videophones or video conferencing systems allow physicians to observe patients' behaviors and their ability to complete tasks on paper. *Con*: A video system often requires more planning and effort to set up than other types of systems.

• **Web-based systems.** *Pro*: Web sites on which patient and provider can interact in real time—through a combination of audio, video, and programmed applications—offer immediate access to a patient's responses and test results, thus providing a wealth of clinical information such as exact timing and calculation of patients' responses, ability to record and review patients' approach to construction tasks, and the capability to adapt test batteries in real-time based on patients' ongoing performance. *Con*: Such systems require specialized software and infrastructure.

Support for telehealth screening

Our patients report feeling comfortable with telehealth screening; they overwhelmingly report that they prefer telehealth services to in-person services that require travel. Studies on the reliability and validity of using cognitive screeners have shown that telehealth screening is a feasible and acceptable practice.[3] Although the telehealth approaches mentioned here can all be used effectively, we have found that video-based cognitive screening might offer the best balance of

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flexibility, accessibility, and ease of use at this time.

Our recommendations

Consider your resources, patient population, and the scope of available telehealth services to guide your approach. Use validated measures that fit the limitations of the modality you have chosen:

• Telephone-based screenings should use verbally based measures (eg, the Short Blessed Test and the Telephone Interview for Cognitive Status).

• Video-based screenings can include visual elements, but you need to decide how to best administer, record, and score the patient's written responses. You might need to mail portions of tests along with a writing utensil and paper to their home. Patients can hold up their responses to the camera or send back the completed tests for scoring.

• Adapt testing to the constraints of a particular situation, but modifications to tests should be limited as much as possible to minimize decreases in reliability and validity.

• Have a clear policy for dealing with unexpected events, such as technological malfunctions, patient privacy concerns, and mental health emergencies.

References

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Our patients report feeling comfortable with telehealth screening and prefer the digital service to in-person services

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