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The Challenges of Screening for Executive Dysfunction

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Because executive cognitive function is complex, involving a range of abilities from abstract thinking to problem solving, it can be difficult to determine the presence of dysfunction with certainty. Criteria for determining executive dysfunction are only now emerging in routine clinical practice. *The Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision, states that executive dysfunction may be evident in "reduced ability to shift mental sets, to generate novel verbal or nonverbal information, and to execute serial motor activities." Numerous tests have been developed that measure one or more of these abilities.^{1,2} But there is no widely accepted screening tool for executive dysfunction, as there are for impaired memory (such as the Memory Impairment Screen) and cognition (such as the Mini-Mental State Examination and the Mini-Cog—for more on the latter, see *How to Try This: The Mini-Cog*, December 2007).

The status of other cognitive domains, in particular memory and communication, is also relevant. Executive dysfunction can be present even if these other domains are intact; but when memory impairment or aphasia is present, executive dysfunction will be significant. This complicates assessment; a patient's results on a test designed to detect executive dysfunction might be affected by impairments in other cognitive domains.³ Some tests, such as the modified Rey-Osterrieth Complex Figure-drawing test, can better distinguish deficits specific to executive function.³

There are practical challenges as well. Although many tests of executive function are available, most require additional materials (such as puzzles or preprinted test forms) or are lengthy or otherwise hard to administer in a hospital. And those tests

that are brief and easier to administer have generally not been subjected to a study of how well they predict disability, although the oral Trail Making Test and the COWAT are predictive of a diagnosis of dementia and the CLOX of nursing home placement.² Research comparing tests of memory with those of executive function is needed to determine which best predicts inability to care for oneself.

There is some evidence that if memory and communication skills are relatively intact, deficits in executive function might be overcome with practice in problem solving.⁴ In a study by Alexopoulos and colleagues, 25 elderly patients with depression and executive dysfunction were randomly assigned to receive either problem-solving therapy (the intervention) or supportive therapy in weekly sessions for 12 weeks. Patients receiving the intervention were taught individualized skills tailored to their "specific everyday problems"; those receiving supportive therapy were given therapeutic support "common to all approaches," such as empathy and encouragement. The researchers found that problem-solving therapy was more effective than supportive therapy in reducing both depression and disability associated with executive dysfunction. ▼

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