

Brief Screening Tools: Administration and Scoring

Modified Hachinski Ischemic Scale

This tool, which is included on the “Memory Loss: Initial Visit Form,” roughly quantifies elements of the history and physical examination relevant to the risk of vascular dementia and helps differentiate between Alzheimer’s type dementia and multi-infarct dementia.

Administration

Patients are scored according to the following clinical features.

Give a score of 0 or 2 for each of the following:

(There is no intermediate score)

- Abrupt onset of dementia
- History of stroke
- Focal neurological signs
- Focal neurological symptoms

Give a score of 0 or 1 for each of the following:

- Stepwise deterioration
- Somatic complaints
- Emotional incontinence
- Hypertension (past or present)

Scoring

A score of 2 or less is typical of Alzheimer’s disease. The higher the score, the greater the risk of vascular dementia.

A total score of 4 or more was used by Rosen as the cut point in the validation studies.

Ref. Rosen WG, Terry RD, Fuld PA, et al. Pathologic verification of ischemic score in differentiation of Dementias. *Ann Neurol* 1980;7:487.

**Time and
Change Test
(T&C)**

This cognitive screening tool is accurate in identifying patients who need further evaluation for possible dementia. It is reliable for patients of various educational levels and ethnic and cultural backgrounds.

Administration

The test involves two tasks:

1. A large clockface with hands set at 11:10 is held 14 inches from the participant's eyes. He or she is given two tries to tell the time within a 60-second period.
2. An assortment of change (three quarters, seven dimes, and seven nickels) is placed on a well-lighted tabletop. The participant is given two tries within a 3-minute period to make a dollar in change.

Scoring

If the participant is not able to complete either or both tasks, the test is positive, indicating possible dementia and the need for further evaluation.

Reference: Froehlich TE, Robison JT, Inouye SK. Screening for dementia in the outpatient setting: The Time and Change test. *J Am Geriatr Soc.* 1998;46:1506-11.

**Mini-Cog
Assessment
Instrument for
Dementia**

Another brief screen for cognitive impairment is the Mini-Cog. It takes approximately 3 minutes to administer. It has minimal language content, which reduces cultural and educational bias. The Mini-Cog combines a 3-item recall component with a Clock Drawing Test (CDT).

Administration

Note: A clock should not be within the patient's view when administering this test.

1. Make sure you have the patient's attention. Instruct the patient to listen carefully to and remember 3 unrelated words and then to repeat the words back to you, so you will know they heard the words correctly.
2. Instruct the patient to draw the face of a clock, either on a blank sheet of paper or on a sheet with the clock circle already drawn on it. After the patient puts the numbers on the clock face, ask him or her to draw the hands of the clock to read a specific time (11:10 or 8:20 are most commonly used and are more sensitive than some others).

These steps can be repeated, but no additional instructions should be given. If the patient cannot complete the CDT within 3 minutes, move on to the next step.

3. Ask the patient to repeat the 3 previously presented words (See step 1).

Scoring

Recall

A score of 0 to 3 is given for the recall test. A point is given for each recalled word after the CDT distracter.

**Mini-Cog
Assessment
Instrument for
Dementia,
continued**

Scoring

Clock Drawing Test (CDT)

A score of 0 or 2 is given for the CDT test. Two points are given for a normal CDT. No points are given for an abnormal CDT.

For a normal CDT, all numbers must be depicted, in the correct sequence and position, and the hands must readably display the requested time.

Mini-Cog Score

To obtain the mini-cog score, add the recall and CDT scores

0-2 indicates positive screen for dementia.

3-5 indicates negative screen for dementia.

References: Borson S, Scanlan JM, Brush M, et al. The Mini-Cog: a cognitive “vital signs” measure for dementia screening in multi-lingual elderly. *Int J Geriatr Psychiatry* 2000; 15(11):1021-27; Borson S, Scanlan JM, Chen P, et al. The Mini-Cog as a screen for dementia: validation in a population-based sample. *J Am Geriatr Soc* 2003; 51(10):1451-4; Borson S, Scanlan JM, Wantanabe J, et al. Improving identification of cognitive impairment in primary care. *Int J Geriatr Psychiatry* 2006; 21(4):349-55.

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***Mini-Mental
State
Examination***

One of the most widely used cognitive assessment tests is the Mini-Mental State Examination (MMSE). It is a brief, quantitative measure of cognitive status in adults that assesses all cognitive domains. It can be used to screen for cognitive impairment, to estimate the severity of cognitive impairment at a given point in time, to follow the course of cognitive changes in an individual over time, and to document an individual's response to treatment. The MMSE has some educational and cultural bias.

Current copyright does not permit reproduction of the MMSE in this tool kit. Copies of the MMSE can be purchased from Psychological Assessment Resources, Inc. (PAR) at www.parinc.com.

For a quick link to information on ordering the MMSE go to <http://minimental.com/>.