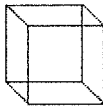


Attachment E. A Short Test of Mental Status (STMS)

"I would now like to examine your memory and related items. Please relax, pay attention to the questions I am asking, and answer them as best as you can."

STMS

| | | | |
|----|-------------------------|---------------------------------------------------------------------------------------------------------------|--|
| 1. | Orientation (8) | Name, address, current location (building), city, state, date (day), month, year | |
| 2. | Attention (7) | Digit span (present 1/sec; record longest correct span) 2-9-6-8-3, 5-7-1-9-4-6, 2-1-5-9-3-6-2 | |
| 3. | Immediate recall (4) | Four unrelated words: "apple," "Mr. Johnson," "charity," "tunnel." Number of trials needed to learn all four: | |
| 4. | Calculation (4) | 5×13 ; $65 - 7$; $58/2$; $29 + 11$ | |
| 5. | Abstraction (3) | Similarities: orange/banana, dog/horse, table/bookcase | |
| 6. | Construction (2) | Draw clock face showing 11:15 | |
| | Copy (2) |  | |
| 7. | Information (4) | President; first President; define an island; number of weeks per year | |
| 8. | Recall (4) | The four words: "apple," "Mr. Johnson," "charity," "tunnel" | |
| | Total Score: (38) | [Raw Score - (number of learning trials - 1)] | |

Instructions for Administration and Scoring of the Short Test of Mental Status (STMS)

Orientation

Each correct response is worth 1 point. The maximum score is 8. [↑ TOP](#)

Kokmen Short Test of Mental Status

Author: Kokmen E.

Purpose: To aid in the diagnosis of individuals with dementia.

Target Population: Individuals likely to develop mild cognitive impairment (MCI), various dementia disorders, or Alzheimer disease (AD).

What it Tests: The Short Test of Mental Status (STMS) tests an individual's orientation, attention, immediate recall, arithmetic, abstraction, construction, information, and delayed (approximately 3 minutes) recall.

Psychometric Characteristics: In one study, a score of 29 or less was used as a screen for dementia and a sensitivity of 92% and specificity of 91% were reached.¹ Another study found sensitivity of the test to identifying dementia is 86.4%, with a specificity of 93.5%.² Reliability and validity were unavailable.

Administration: The STMS can be administered to patients in inpatient and outpatient settings using the STMS questionnaire form. The test-giver verbally asks the questions to the patient.

Time required: Approximately 5 minutes are required for administration of the STMS.

Advantages: The STMS is better than the Mini-Mental State Examination (MMSE) at detecting those likely to develop MCI or AD.³ The STMS was compared with standardized tests of cognitive function such as the Wechsler Adult Intelligence Scale, Mattis Dementia Scale, and the Auditory Verbal Learning Test, and showed a high degree of correlation.²

Limitations: Limited information available.

Ordering/Acquisition Information: This tool is available online and easily located through a search engine. This website presents it in a .doc format that can be printed out: [www.stanford.edu/~ashford/MMSgenealogy/Several tests.doc](http://www.stanford.edu/~ashford/MMSgenealogy/Several%20tests.doc).⁴

References:

1) Kokmen E, Naessens JM, Offord KP. A short test of mental status: description and preliminary results. *Mayo Clinic Proceedings*. 1987;62;281-288.

2) Kokmen E, Smith GE, Petersen RC, Tangalos E, Ivnik RC. The short test of mental status: correlations with standardized psychometric testing. *Archives of Neurology*. 1991;48;725-728.

Attention

Usually a span of five digits is given to the patient. If the patient responds correctly, the span is increased to six and then to seven. The patient's best performance is then recorded. If the patient is able to repeat seven digits forward, the test is terminated. The number of digits correctly repeated is the score; the maximal score is 7, and the minimal score is 0. [↑ TOP](#)

Immediate Recall

If the patient learns the words on the first trial, then the next subtest is given. If the patient is unable to learn all four words, the investigator repeats them for a maximum of 4 trials and records the number of trials that the patient requires to learn all 4 words. If the patient is unable to learn all four words by the end of the fourth trial, the patient's best performance is recorded (the number of words learned and the number of trials required). Learning is scored in two parts. A point is earned for each word learned (a maximum of 4 points). One less than the number of trials (a maximum of 4) required to learn the words was subtracted from the score. Thus, the values that were subtracted were between 0 and 3. [↑ TOP](#)

Calculation

Each correct answer earns 1 point, and the maximal score is 4. [↑ TOP](#)

Abstraction

One point for each word pair is given only for definitely abstract interpretations (for example, horse/dog = animal). Concrete interpretations or inability to see a similarity earns 0 points for that word pair. The maximal score is 3. [↑ TOP](#)

Construction and Copying

The patient is able to view the diagram of a cube while drawing his or her own version. For each construction, an adequate conceptual drawing is scored as 2, a less than complete drawing earns a score of 1, and inability to perform the task earns a score of 0. The maximum score for the construction tasks is 4. [↑ TOP](#)

Information

Each correct answer earns 1 point, and the maximal score is 4. [↑ TOP](#)

Recall

At the end of the test, the patient is asked to recall the four words from the immediate recall subtest. No cues or reminders are provided. The patient earns 1 point for each word recalled, and the maximal score is 4. [↑ TOP](#)

Total Score

Total score = sum of subtest scores minus (number of trials for acquisition minus 1). For example, if a patient learned all four words on the first trial, nothing was subtracted from the sum of the subtest scores. If a patient required four [↑ TOP](#) to learn some or all four words, then 3 was subtracted from the sum of the subtest scores.

Source: Kokmen E, Naessens JM, Offord KP. A short test of mental status: description and preliminary results. *Mayo Clinic Proc* 1987;62:281-8. Copyright 1987, Mayo Clinic Foundation. Used with permission. [↑ TOP](#)