

Mini mental State Examination

As a resident in psychiatry you have the sufficient clinical skills to assess the cognitive status of a patient. Primary source of your assessment comes from systemic neurological examination and mental state examination. In addition you need to apply specific test that can be used both in bedside and also in OPD. At this point Mini Mental State Examination (MMSE, Folstein et al 1975)) is commonly use, that also known as Folstein Test.

MMSE assesses 6 domains: orientation, registration, attention and concentration, recall, language and construction. To assess these domains there are a series of verbal and performance tasks specifically for each domain. How to use it, assess the scores and interpretation are given below.

Use:

MMSE is used both for qualifying and quantifying cognitive status of the patients. The total scores and sub scores indicate the severity and areas of deficits.

MMSE is mostly used in Dementia to assess degree, severity and pattern of cognitive deficit and indicative of areas of involvement in all types of dementia. Thus it helps to decide whether anti-Alzheimer's or other nootropic drugs are indicative. It is also use to assess the degree of progressiveness of the disease, response of drugs and outcome of intervention.

MMSE is also use in Delirium due to any cause to assess its severity, prognosis and outcome.

MMSE is also used in any other neurocognitive disorders for the same purpose.

It is also use in intellectual disability for considering educational placement.

Further related knowledge and skills:

To know name of other tests used for cognitive state assessments and how to use these test

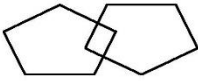
To know lobar functions and features abnormalities in lobar dysfunctions and how to assess lobar functions.

To know the causes of delirium am dementia and how to elicit possible cause in clinical setup

Mini-Mental State Examination (MMSE)

Patient's Name: _____ Date: _____

Instructions: Score one point for each correct response within each question or activity.

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day? Month?"
5		"Where are we now? State? County? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then the instructor asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible.
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.) 
30		TOTAL

Interpretation of the MMSE:

Method	Score	Interpretation
Single Cutoff	<24	Abnormal
Range	<21	Increased odds of dementia
	>25	Decreased odds of dementia
Education	21	Abnormal for 8 th grade education
	<23	Abnormal for high school education
	<24	Abnormal for college education
Severity	24-30	No cognitive impairment
	18-23	Mild cognitive impairment
	0-17	Severe cognitive impairment

Interpretation of MMSE Scores:

Score	Degree of Impairment	Formal Psychometric Assessment	Day-to-Day Functioning
25-30	Questionably significant	If clinical signs of cognitive impairment are present, formal assessment of cognition may be valuable.	May have clinically significant but mild deficits. Likely to affect only most demanding activities of daily living.
20-25	Mild	Formal assessment may be helpful to better determine pattern and extent of deficits.	Significant effect. May require some supervision, support and assistance.
10-20	Moderate	Formal assessment may be helpful if there are specific clinical indications.	Clear impairment. May require 24-hour supervision.
0-10	Severe	Patient not likely to be testable.	Marked impairment. Likely to require 24-hour supervision and assistance with ADL.

Source:

- Folstein MF, Folstein SE, McHugh PR: "Mini-mental state: A practical method for grading the cognitive state of patients for the clinician." *J Psychiatr Res* 1975;12:189-198.