

## **11. Modified Mini Mental**

### **11.1 Rationale for Measuring Cognitive Function in the Frequent Hemodialysis Network**

Cognitive impairment is common in hemodialysis patients, and may adversely affect quality of life. Frequent hemodialysis, through its effects on a number of biological and psychosocial factors may positively affect cognitive function.

The Mini-Mental State Examination is a widely used test of cognitive function among the elderly. The 3MS exam, or Modified Mini-Mental State Exam<sup>1</sup> is an expanded 100-point version of the original designed to increase the sensitivity and specificity of the test as a screen for dementia. Compared to the Mini-Mental State Exam, the 3MS covers a wider range of difficulty levels and enhances the reliability and validity of the scores while maintaining the brevity and ease of administration of the original. Individual items on the 3MS will be scored by test administrators; the total score is derived by computer algorithm. The test administrator should not attempt to score the test during the testing of the study participant.

In the Frequent Hemodialysis Network (FHN), the 3MS will be administered at baseline, 4 months, and at 12 months in the Daily Trial and baseline, 5 months, and at 14 months in the Nocturnal Trial. Although there are alternate forms available for repeated administration, a single version of the 3MS will be used in the FHN study.

### **11.2 Equipment and Supplies**

- Number #2 pencils with eraser
- Stop watch
- "Close your eyes" (Card # 1) (See Appendix A)
- Several pieces of blank paper
- Intersecting pentagons card (Card # 2) (See Appendix A)

### **11.3 Safety Issues and Exclusions**

None.

### **11.4. Participant and Exam Room Preparation**

The 3MS should be administered in a quiet place, with minimal distractions, at a desk or table the participant can use as a writing table. If any temporary condition that may detract the participant from their optimal performance cannot be removed, the participant should be moved to another location; if this is not possible, reschedule the exam. Ask the participant if they are comfortable. Reassure them that this is a routine test of concentration and memory that will be done several times during the course of the study.

### **11.5 Detailed Measurement Procedures**

#### **11.5.1 General Issues**

Examiners should thoroughly familiarize themselves with the testing procedures and the scoring criteria before using the 3MS test in formal assessment. While the 3MS form contains condensed information from the manual, misunderstandings of this information can easily occur. In the

administration of the 3MS exam, give at least 2 seconds for a response, but do not converse or offer extra help. If the participant says "I don't know" or is unable to give an answer, the examiner may prompt once with the statement, "Please try," or "Give it a try." When a participant gives an incorrect answer the examiner scores accordingly and proceeds to the next item. If the participant asks how they are doing, say, "We appreciate your effort." Although time limits are set for some items, they are used only for guiding the examiners in pacing the administration and in scoring. The participant should never be told of any time limit on any item. The stopwatch should always be kept out of the participant's view.

### 11.5.2 General Scoring Issues

The 3MS examination asks the participants to provide information and to perform specific tasks as instructed by the examiner to assess cognitive function. Based on the response or performance of the task, the interviewer marks the appropriate level of "correctness" of the response.

The 3MS version of the exam broadens the final range of scores from 0-30 to 0-100 and exhibits greater sensitivity in screening participants for dementia. The 3MS scores will be generated by a computer algorithm after data entry.

The test administrator should not attempt to score the exam during the actual patient testing phase.

- 1) If you cannot determine how to code the response, record notes in the left-hand margin so that the scoring can be reviewed later. Bring ambiguities to the attention of the *clinic quality control officer*.
- 2) If a task is not attempted due to a physical limitation such as vision or hearing impairment, severe arthritis, or illiteracy, that task is scored "Not Attempted/Disability". If a task is scored "Not Attempted/Disability", the reason the task was not completed must be specified in Item 24 on Form 231. - Special Problems. Please indicate the questions that were affected.
- 3) Check "error/can't do/refused" if the task is not successfully completed for any other reason. This includes errors due to cognitive dysfunction, refusals when no physical or functional disability is present, lack of response, or the participant says they can't remember.
- 4) Let the participant attempt all tasks unless you determine that the participant cannot do the task. In these cases, score the question "Can't do/refused". This includes instances in which you perceive:
  - the participant is unable to do the task;
  - the participant appears to be experiencing excess stress; or
  - no response is received from the participant after a reasonable time period.
- 5) If the participant answers the question correctly but not within the specified time limit (if a time limit is given), the question remains incorrect (scored can't do/refused). Quick self-corrections are OK as long as they are within the specified time limit. In these as in all cases, continue on to the next question without delay.

### 11.5.3 Administration

1) Introduce test to participant.

**Examiner Script:** “Are you comfortable? I would like to ask you a few questions that require concentration and memory. Some are a little bit more difficult than others. Some questions will be asked more than once.”

2) Read each question from the form and mark the appropriate level of response.

3) Always read scripts exactly as written.

4) Give at least 2 seconds for the participant to initiate an answer.

5) Always be discreet with the use of the stopwatch.

#### 11.5.3.1 Date and Place of Birth

**Question 5** is a measure of long-term memory. It is assumed that everyone has had repeated opportunities to learn and report their date and place of birth.

**Question 5a to 5c** - When were you born?

1) Fill in the month, day and year reported by the participant; then in the adjacent space enter a “1” if the answer is correct, and a “0” if the answer is incorrect.

2) If partial or unrelated information is given, clarify the question by telling the participant you are looking for the month, day and year in which they were born.

3) If no response is given, record a “0” in the space provided.

**Question 6a to 6b**- Where were you born?

1) If the participant gives only a partial answer (e.g., only the city/town), ask for the missing information.

2) If an unrelated answer is given (e.g., hospital name), clarify the question by telling the participant you are looking for the city/town and state or country in which they were born.

#### **Scoring:**

- If the participant gives a response, record the city/town and state/country reported by the participant. Since we have no independent source for determining the accuracy of the response, the question is repeated in Question 23. When the participant's responses on both occasions are the same, the answer is considered correct and a “1” is recorded in the corresponding space. This

method assumes that when the participant does not remember, it is unlikely that the two responses will be identical.

### 11.5.3.2 Registration

**Question 7** - "I am going to say three words for you to remember. Repeat them after I have said all three words: **shirt, blue, honesty.**"

- 1) Make sure the participant is attentive when beginning the question.
- 2) Say the three words distinctly at the rate of 1 to 2 seconds per word.
- 3) The participant may repeat the words in any order.
- 4) If the participant repeats after each word is read by the examiner, at the end of your presentation say, "Tell me the three words again" and mark the score according to the responses to this request.
- 5) Do not repeat the words for the participant until after the first trial. When there are errors on the first trial, repeat the items up to six times until they are all learned. (Total of seven presentations.)
- 6) Be sure that the correct suffix of the word is repeated. For example, do NOT accept "shirts" for "shirt" or "honest" for "honesty". The exact form of the word must be repeated.
- 7) Record the number of presentations necessary for the participant to repeat the sequence (up to seven). If still not learned after seven presentations, record "error" for each word not learned and "7" in box 7d.

### 11.5.3.3 Mental Reversal

This item has two parts: counting backward from 5 to 1 and spelling WORLD backward. For each part, ask the participant to do the forward version first; coach once when needed. Only one attempt per question is allowed.

#### **Question 8:**

(first part): "I would like you to count from 1 to 5." *Wait as the participant counts.*

(second part): "Now I would like you to count backwards from 5 to 1."

- 1) If the participant cannot count forward to 5, prompt with "Say 'one, two, three, four, five'" at the rate of 1.5 seconds per digit.
- 2) Coach only once, then continue with the second part of Question 8 even when the performance in counting forward is not perfect.

### **Scoring:**

- Write the numbers in the sequence given in the blanks provided. If no response is given, record an '\*'(asterisk) for each missed digit. The database will allow you to enter the asterisks and will score this item automatically once the participant's responses are entered.
- The computer will score a “2” if the participant accurately counts backwards, a “1” if the participant has 1-2 errors, and a “0” if the participant has >2 errors. Only question 8b will be scored.

### **Question 9**

(first part): “Spell ‘WORLD’.” *Wait as the participant spells.*

(second part): “Now spell ‘WORLD’ backwards.”

- 1) If the participant cannot spell "world" forward, prompt with "It is spelled W O R L D" at the rate of 1.5 seconds per letter.
- 2) Coach only once, then continue with the second part of Question 9 even when the performance in spelling forward is not perfect.

### **Scoring:**

- Write the letters in the sequence given in the blanks provided. If no response is given, record an '\*'(asterisk) for each missed digit. The database will allow you to enter the asterisks and will score this item automatically once the participant's responses are entered.
- The computer will score the number of correct responses in 9b. For example, if the participant names 3 letters in the correct sequent, the score for 9b will be a “3”.

### **11.5.3.4 First Recall of Three Words**

**Question 10** - What three words did I ask you to remember earlier?

- 1) The words may be repeated in **any** order.
- 2) For each word not readily reported, provide the category (for instance, "it is something to wear") followed by multiple choices when necessary. Do not wait more than 3 seconds for spontaneous recall and do not wait more than 2 seconds after giving the category before providing the next level of help.
- 3) If the participant gives an incorrect answer in the correct category (e.g., says "socks" or "coat" instead of "shirt"), provide the three alternatives for them to choose from, and score 1 when the choice is correct.

4) If the participant repeats an incorrect form of the correct word, e.g., "shirts" for "shirt" or "honest" for "honesty", a code has been added to reflect this answer ('correct word/incorrect form'). In these cases it is very important to repeat the word with the correct ending back to the participant for the subsequent recall.

Scoring: For each word, provide the response in the space provided:

- spontaneous recall;
- incorrect form of the correct word;
- correct recall after cueing with category;
- correct identification from the three alternatives;
- "unable to recall" when an inaccurate response was given after both prompts, or if the appropriate time limit has elapsed.

Example:

Examiner: "What three words did I ask you to remember earlier?"

Participant: "Shirt....." (3 second pause)

Examiner: "Another word is about a color."

Participant: "Blue!"

Examiner: "Good. Another word is about a good personal quality."

Participant: "Modesty?"

Examiner: "I'll give you three words to choose from - honesty, charity, modesty."

Participant: "Modesty!" (Or: No response for 2 seconds)

Examiner: "No. The word is 'honesty'."

For the above example the scores are "spontaneous recall," "after 'a color'", and "unable to recall" respectively for shirt, blue and honesty.

### **11.5.3.5 Temporal Orientation**

**Question 11a through 11c** - What is today's date?

1) Ask for the date. Fill in the month, day and year reported by the participant, and enter the corresponding numerical score for each response. For example, if the participant is within 1 month of the correct answer, score a '1' for question 11a.

2) If no response is given, record 'X' in each space provided.

**Question 11d** - "What day of the week is it?"

Fill in the day of the week reported by the participant, and enter the corresponding numerical score for each response. If no response is given, record an 'X' in the space.

**Question 11e** - What season of the year is it?

1) Since distinctions between seasons can be difficult during certain months, the following schedule has been created. For months with two seasons listed, either answer is correct.

<u>Month</u>	<u>Correct Response</u>
January	Winter
February	Winter
March	Winter or Spring
April	Spring
May	Spring
June	Spring or Summer
July	Summer
August	Summer
September	Summer or Fall (Autumn)
October	Fall (Autumn)
November	Fall (Autumn)
December	Fall (Autumn) or Winter

**11.5.3.6 Spatial Orientation**

1) For **questions 12a through 12c**, Fill in the blanks that were reported by the participant, and enter the corresponding numerical score for each response. If no response is given, record an 'X' in the space.

**Question 12a** - What state (province) are we in?

**Question 12b** - What county (parish) are we in?

**Question 12c** - What (city/town) are we in?

**Question 12d** - Are we in a clinic, store or home?

This question assumes that the test is being administered in a clinic setting. When the correct answer is not among the three alternatives (e.g., test is being conducted in a hospital or nursing home), substitute the correct response for the middle alternative (store).

2) If the participant responds that neither "clinic", "store" nor "home" is the correct answer, ask them to make the best choice out of the three options.

**11.5.3.7 Naming**

This set of questions tests whether or not the participant can promptly name the two objects and the five body parts.

**Question 13a to 13b** - What do you call this part...?

- 1) Ask each question while pointing to the appropriate part on your own body.
  
- 2) Correct responses for each item are:
  - c. forehead or brow
  - d. chin
  - e. shoulder or shoulders
  - f. elbow or elbows
  - g. knuckle or knuckles
  
- 3) If the participant gives a scientific or medical version of the name for any of the body parts (i.e., 'medicalese'), ask them to provide the common name.
  
- 4) If the participant cannot name the item within 2 seconds or gives an incorrect answer, do not help or question again. Check "Error/refused" and continue with Question 14.

**11.5.3.8 Four-Legged Animals**

**Question 14** - What animals have four legs? Tell me as many as you can.

- 1) Record each animal named in the spaces provided.
  
- 2) If the participant says "All animals have four legs", say "tell me their names."
  
- 3) Discontinue after 30 seconds. Record the total number of correct responses.
  
- 4) If the participant gives no response in 10 seconds and there are still at least 10 seconds remaining, gently remind them (once only): "What (other) animals have four legs?"
  
- 5) The first time an incorrect answer is provided, say, "I want four-legged animals." Do not correct for subsequent errors.

**Scoring:**

- Score one point for each correct animal.
  
- Different names for the same animal of different age or sex count as one animal. For example:
  - kitten/cat
  - puppy/dog
  - deer/doe



- Those animals with similarities but true technical differences may be counted as two separate animals; e.g., pony and horse may be counted as two; mule and donkey may be counted as two; but ass and donkey are the same animal and must be counted as one.

Example:

Examiner: "What animals have four legs? Tell me as many as you can."

Participant: "Dog....Cat....Bird....."

Examiner: "I want four-legged animals."

Participant: "Oh, OK! Elephant...." Ten seconds pass and there are still ten seconds left of the 30 seconds.

Examiner: "What other animals have four legs?"

Participant: "Hippo....Dog....Kitten....Cow....Pig.... Chicken....Sheep...." Thirty seconds is up.

Score: 7

A set of abbreviations may be helpful for writing the animal names quickly.

### **11.5.3.9 Similarities**

This question is designed to measure abstract or conceptual thinking. In general, 2 points are given for conceptual similarities which are primarily pertinent for both members of the pair. Always accept the first answer given. If two concepts are given simultaneously (i.e., within the first statement provided back by the participant), score the higher value of the two concepts.

**Question 15a** - In what way are an arm and a leg alike?

If the initial response is scored "Lesser correct answer" or "Error/refused", coach the participant by saying "An arm and a leg are both limbs or extremities" to reinforce the correct answer.

*Coach only for Question 15a.* No other prompting or coaching is allowed.

#### **Scoring:**

- Check "Limbs, extremities, appendages" when the response is that they are both:
  - limbs
  - extremities
  - appendages
- Check "Lesser correct answer" when the response is that both:
  - are body parts
  - bend
  - move
  - are long

- have joints
- other similar responses

• Check "Error" when the participant gives an incorrect similarity, tells how they are different, says "They are different" or "I don't know", or refuses to answer. Other examples of "Error" answers:

**Question 15b** - In what way are laughing and crying alike?

**Scoring:**

• Check "Expressions of feelings, emotions" when the response is that they are both expressions of:

- feelings
- emotions

• Check "Lesser correct answer" when the response is that both are:

- sounds
- expressions
- both have tears
- both are satisfying to you
- you cry with both
- other similar responses

• Check "Error/refused" when the participant gives an incorrect similarity, tells how they are different, says "They are different" or "I don't know", or refuses to answer.

Other examples of "Error/refused" answers:

- when you laugh, you laugh; when you cry, you cry

**Questions 15c** - In what way are eating and sleeping alike?

**Scoring:**

• Check "Necessary bodily functions, essential for life" when the response is that they are both are:

- necessary bodily functions
- essential for life

• Check "Lesser correct answer" when the response is that both are:

- body functions
- relaxing
- good for you
- other similar responses

• Check "Error/refused" when the participant gives an incorrect similarity, tells how they are different, says "They are different" or "I don't know", or refuses to answer.

### 11.5.3.10 Repetition

**Question 16** - Repeat what I say: *I would like to go out.*

Pronounce the individual words distinctly but with normal tempo of a spoken sentence.

**Scoring:**

- Check "Correct" when the sentence is repeated exactly.
- Check "1 or 2 words missed" when one or two incorrect words are given.
- Check "3 or more words missed" when three or more incorrect words are given, there is no response or the participant refuses.

**Question 17** - Now repeat: *No ifs, ands or buts.*

Pronounce the individual words distinctly but with normal tempo of a spoken sentence.

- Check "Correct" for each part (e.g., *ifs, ands, buts*) correctly repeated; give no credit if the participant misses the "s".
- Check "Error/refused" when the word is not correctly repeated (including when the "s" is not pronounced), no response is given or the participant refuses.

### 11.5.3.11 Read and Obey

**Question 18** - Hold up Card # 1 and say, "**Please do this.**"

- 1) If the participant does not close their eyes within 5 seconds, prompt by pointing to the sentence and saying "**Read and do what this says**".
- 2) If the participant has already read the sentence aloud spontaneously, simply say, "**Do what this says.**" Allow 5 seconds for the response.
- 3) As soon as the participant closes their eyes, say: "**Open**".
- 4) Check "Closes eyes without prompting" when participant performs the command spontaneously.

**Scoring:**

- Check "Closes eyes after prompting" when participant performs the command only after the prompt: "**Read and do what this says**"
- Check "Reads aloud, but does not close eyes" when participant reads the command aloud either spontaneously or after the prompt, but does not close their eyes.

- Check "Does not read aloud or close eyes" when the participant neither reads the sentence aloud nor closes their eyes, or otherwise does not respond.

### **11.5.3.12 Writing**

**Question 19** - Please write the following sentence: *I would like to go out.*

1) Hand participant a piece of blank paper and a #2 pencil with eraser. If necessary, repeat the sentence word by word as the participant writes.

2) Allow a maximum of 1 minute after the first reading of the sentence for scoring the task.

#### **Scoring:**

- NOTE: If the participant is still working at the end of one minute, allow them to complete the task for the sake of maintaining rapport and morale. Mark the 1 minute point on the product and do not credit for parts finished after 1 minute.

- Check "Correct" for each correct word, except "I".

- The following are considered acceptable:

- Printing or cursive writing
- All capital letters
- Self corrected errors

- The following are considered errors:

- Portions of sentence written after the one minute time limit.
- Spelling errors
- Incorrect mixed capitalizations, e.g., I Would Like To Go Out.

- Check "Error/refused" for each word which has any error listed above or if the participant does not respond.

#### **Right- or Left-Handedness**

Observe which hand the participant uses to write and record on the form. You will need this information later in Question 21. If this task was not performed due to a functional disability, ask the participant if they are right- or left-handed.

### **11.5.3.13 Copying Two Pentagons**

**Question 20** - Here is a drawing. Please copy the drawing onto this piece of paper.

1) Hand participant Card #2. Allow one minute for copying.

2) For right handed participants, present the sample on the left side; for left handed participants, present the sample on the right side.

- 3) Allow a maximum of 1 minute for response.
- 4) Do not allow the participant to trace the drawing.

### **Scoring:**

- **NOTE:** If the participant is still working at the end of one minute, allow them to complete the task for the sake of rapport and morale. Mark the 1 minute point on the product and do not credit parts finished after 1 minute.
- Do not penalize for self-corrected errors, tremors, minor gaps, or overshoots.
- When gaps are found in the drawing, they are permissible if the shape of the pentagon can be perceived.
- Each pentagon is scored as follows: Check appropriate box:
  - 5 approximately equal sides.
  - 5 unequal sides, and the longest:shortest side ratio is  $> 2:1$ .
  - non-pentagon enclosed figure is drawn.
  - 2 or more lines, but it is not an enclosed figure.
  - less than 2 lines or the participant refuses to do the task.
  - participant does not attempt the task due to a functional disability such as visual impairment or severe arthritis, etc.
- The intersection is scored as follows:
  - 4-cornered enclosure.
  - not a 4-cornered enclosure.
  - no enclosure or the participant refuses to do the task.
  - participant does not attempt the task due to a functional disability such as visual impairment or severe arthritis.

### **11.5.3.14 Three Stage Command**

**Question 21** - Hold up a piece of white paper in plain view of the participant but out of their reach and say: **“Take this paper with your left (right for left handed person) hand, fold it in half using both hands, and hand it back to me.”**

- 1) Refer to Question 19f to check whether the participant is right- or left-handed. Ask them to take the paper in their non-dominant hand.
- 2) After saying the whole command, hold the paper within reach of the participant.

**NOTE:** - Do not repeat any part of the command.

- If the participant requests the examiner to repeat a portion of the command and it is felt appropriate to oblige for sake of maintaining rapport, score according to the response(s) executed prior to repeating command.

- Do not move the paper toward the participant.

- Do not move your hand toward the participant as a gesture to take the paper back.

3) If the participant reaches for the paper right after hearing the first portion of the command, move your hand away from the participant so that the paper is out of reach and continue to state the next two parts of the command without interruption.

4) The participant may hand back the paper with either hand.

### **Scoring:**

- Check "correct" for each portion of the command completed correctly.

- Check "Error/refused" for each portion of the command incorrectly completed. This includes:

- First portion: Participant uses dominant/preferred hand.

- Second portion: Participant folds the paper more than once.

- Third portion: Participant puts the paper down instead of handing it back to the examiner.

- Participant refuses to do the task.

- Check "not attempted/disabled" when a physical or functional disability (such as severe arthritis) prevents the participant from answering.

### **11.5.3.15 Second Recall of Three Words**

**Question 22** - What three words did I ask you to remember earlier?

1) Administer this item even when the participant scored one or more "0's" on Question 5.

2) The words may be repeated in **any** order.

3) For each word not readily given, provide the category followed by multiple choices when necessary. Do not wait more than 3 seconds for spontaneous recall and do not wait more than 2 seconds after category cueing before providing the next level of help.

### **Scoring:**

- If the participant repeats an incorrect form of the correct word, e.g., "shirts" for "shirt" or "honest" for "honesty", a code has also been added to reflect this answer ('correct word/incorrect form').

- If the participant gives an incorrect answer in the correct category (e.g., says "socks" or "coat" when the correct answer is "shirt"), provide the three alternatives for them to choose from, and score 1 if the choice is correct.
- If the participant cannot get the correct answer even after multiple choices, check "unable to recall/refused".
- Check "unable to recall/refused" if an incorrect response is given after both prompts, or when the appropriate time limit has elapsed.

### **11.5.3.16 Validation of Birthplace**

**Question 23** - Would you please tell me again where you were born?

- 1) Ask this question only when a response was given in Question 6a and 6b.
- 2) Score the response by checking against the response in Question 6a and 6b.

### **11.5.3.17 Special Problems**

**Question 24** - If physical/functional disabilities or other problems exist which cause the participant difficulty in completing any of the tasks, mark the box coded 'yes' and record the nature of the problem from the following problems codes:

- vision
- hearing
- writing problems due to injury or illness
- illiteracy/lack of education
- language

- If no special problems were noted, check '0'. The way to determine the above listed disability or problem will be by examiner's observation or participant's self-report. For example, if the participant has an obvious difficulty hearing the examiner, or clearly says, "I can't see," the examiner would mark the appropriate box next to the listed problem.

## **11.6 Alert Values/Follow-up/Reporting**

When the interview is completed, thank the participant and tell them they did well, without offering specific feedback on their performance. You might say, "Thank you for doing this interview. You did just fine."

There are no alert values.

## **11.7. Quality Assurance**

### **11.7.1 Training Requirements**

The examiner requires no special qualifications or prior experience to perform this assessment. Training should include:

- Read and study manual
- Attend FHN training session on techniques (or observe administration by experienced examiner).
- Practice on volunteers
- Discuss problems and questions with local expert or QC officer

### **11.7.2 Certification Requirements**

- Complete training requirements
- Explain how to score a question if:
  - Participant has a physical limitation making task impossible
  - Participant has cognitive limitation
  - Participant does not respond or can't remember
  - Participant answers correctly but not within time allotted

### **11.7.3 Quality Assurance Checklist**

- Exam performed in quiet, private area without interruptions
- \_ Correct instructions given in clear, slow speaking voice
  - \_ Stopwatch used discreetly
  - \_ Missing parts of dates and birthplace asked for
  - \_ List of 3 objects read slowly and evenly
  - \_ 3 objects repeated until learned, up to 6 times
  - \_ WORLD spelled out slowly, about 1 second per letter
  - \_ Waiting for spontaneous recall no more than 3 seconds
  - \_ Waiting for prompted (w/category) recall no more than 2 seconds
  - \_ Standard pencil used for naming
  - \_ Individual words and "s's" in phrase "NO IFS..." clearly enunciated
  - \_ Pentagon drawing held ON LEFT SIDE for RIGHT-HANDED participant and on RIGHT SIDE for LEFT-HANDED participant
  - \_ Pentagon drawing correctly scored



\_ Paper for Three Stage Command Q21 held out in front of participant, NOT TO RIGHT OR LEFT

\_ Responses correctly coded (QC officer should independently fill out scoring sheet)

\_ Special problems (impairment, illiteracy, etc.) recorded in exam comments

\_ Reviews form for completeness

\_ Correctly completes form

### **11.8 References**

1. Teng, Evelyn Lee, and Helena Chang Chui. 1987. The Modified Mini-Mental State (3MS) Examination. J. Clin. Psychiatry 48:8 pp 314-318.

### **11.9 Timing of Tests**

The coordinator may split up the bedside tests onto 2 or more separate days. Irrespective of whether they are done on the same day or on different days, the order of the tests should be set:

- 1) Feeling Thermometer (this is done first to avoid mental and physical exhaustion from other tests affecting mood).
- 2) MiniMental
- 3) Trailmaking B
- 4) Physical Function Tests (these are done last to avoid physical exhaustion affecting ability to do cognitive tests).

**CLOSE YOUR EYES**

