PHASE 7 — Mini-Mental State Examination (MMSE)

I am going to ask you some questions now which have to do with your concentration and memory. Some of them may seem rather easy, others may be difficult, but we need to ask everyone the same questions.

1. ORIENTATION

Time

(a) **"What day of the week is it?"** MMM_ORA | Incorrect 0
Correct 1   Not asked 9

(b) **"What is the date today?"**
Day   MMM_ORBD | Incorrect 0
Correct 1   Not asked 9

Month   MMM_ORBM | Incorrect 0
Correct 1   Not asked 9

Year   MMM_ORBY | Incorrect 0
Correct 1   Not asked 9

(c) **"What is the season?"** MMM_ORC | Incorrect 0
Correct 1   Not asked 9
(write season __ MMM_ORS1 __)

Allow flexibility when season changes, eg:-

March	=	Winter/ Spring
June	=	Spring/ Summer
September	=	Summer/ Autumn
December	=	Autumn/ Winter

Place

(d) **"Can you please tell me which county or borough you live in ?"**
MMM_ORD | Incorrect 0
Correct 1   Not asked 9

(e) **"Can you tell me where we are now ? For instance, What is the name of this town?"** Incorrect 0
Correct 1   Not asked 9
MMM_ORE

(f) **"Now, can you tell me if we are north or south of the river Thames ?"**
MMM_ORF | Incorrect 0
Correct 1   Not asked 9

(g) **"What floor of the building are we on?"** | Incorrect 0
Correct 1   Not asked 9
MMM_ORG

(h) **"What is the name of this building?"** | Incorrect 0
MMM_ORH | Correct 1   Not asked 9

2. REGISTRATION

"I am going to name three objects. After I have finished saying all three, I want you to repeat them. Remember what they are because I am going to ask you to name them again in a few minutes."

Name the following three objects taking 1 second to say each: **apple, table, penny**.
Tick items which are correct on the first attempt and enter number correct under total.

Apple **MMM_RGA**
Table **MMM_RGTA**
Penny **MMM_RGP**
Total **MMM_RGTO**   Not asked   9

If any errors or omissions are made on the first attempt, **repeat all the names** until subject learns all three (maximum of five repeats). Record number of repeats (record 0 if all correct on first attempt)
                                    MMM_RGAT

First attempt:__   Repeat 1: __   Repeat 2:__   Repeat 3:__   Repeat 4: :__   Repeat 5:__

3. ATTENTION/ CONCENTRATION

	Subject		
		Response	Correct
"Now I would like you to take 7 away from 100.	93	**MMM_ACAR**	**MMM_ACAC**
Now take 7 away form the number you get.	86	**MMM_ACBR**	**MMM_ACBC**
Now keep subtracting 7 until I tell you to stop."	79	**MMM_ACCR**	**MMM_ACCC**
Record answers. Score 1 point each time the	72	**MMM_ACDR**	**MMM_ACDC**
difference is 7, even if a previous answer was	65	**MMM_ACER**	**MMM_ACEC**

incorrect.
Maximum score = 5 points   Total ____   Not asked
                                                    MMM_ACTO

Say **"Spell the word "WORLD"**.   (subject's response)_____
(you may help subject to spell world correctly)   Incorrect   0
            MMM_ACWD   Correct   1   Not asked   9
(If the subject cannot spell "world" even with assistance - score 0.)

Say **"now spell it backwards please"** (subject's response)_____
Allow 30 seconds to spell backwards.
            MMM_ACDW   Incorrect   0
                        Correct   1   Not asked   9

4. MEMORY RECALL

"What were the three objects I asked you to repeat a little while ago?"

Tick each item answered correctly   Apple **MMM_MRA**
and enter number correct under total   Table **MMM_MRTA**
                                Penny **MMM_MRP**
                                Total **MMM_MRTO** Not asked   9

5. EXPRESSION: NAMING

Accurate naming is needed; descriptions of function or approximate answers are not acceptable. Some items may have more than one correct name, as has been indicated. Errors include description of function (eg:- 'used for telling the time' for watch).
In the case of approximate answers, you should say 'Can you think of another word for it?'

Tick each item correctly named and enter number correct under total.

	Show pencil				Correct
(a)	**"What is this called?"**	(write response_____)	Pencil		**MMM_ENPL**
	Show wristwatch				
(b)	**"What is this called?"**	(write response_____)	Watch		**MMM_ENWH**
			Total		**MMM_ENTO**

6. EXPRESSION: REPETITION

Only <u>one presentation</u> is allowed so it is essential that you read the phrase clearly and slowly, enunciating all the S's

"I am going to say something and I would like you to repeat it after me:
'No ifs, ands or buts'

| **MMM_ER** | Incorrect | 0 | | |
| | Correct | 1 | Not asked | 9 |

7. LANGUAGE: READING COMPREHENSION

Show card that says "CLOSE YOUR EYES". It is not necessary for subject to read aloud. If subject reads instruction but fails to carry out action, say **'Now do what it says'**.

"Read this page and then do what it says. "

| Close your eyes | **MMM_LRC** | Incorrect | 0 | | |
| | | Correct | 1 | Not asked | 9 |

8. PRAXIS: IDEATIONAL

Read the following statement and then hand to the subject a sheet of paper. Make a point of handing to the subject's mid-line.
Do not repeat instructions or coach. Score a move as correct only if it takes place in the correct sequence. Tick each correct move and enter number correct under total. Maximum score = 3 points. (Note 0 if not done or not done correctly; 1 if correct).

"I am going to give you a piece of paper.	Right hand	**MMM_PIRH**		
When I do, take the paper in your right hand.	Folds	**MMM_PIF**		
Fold the paper in half with both hands,	On lap	**MMM_PIOL**		
and put the paper down on your lap."	Total	**MMM_PITO**	Not asked	9

9.   PRAXIS: COPYING AND DRAWING

The subject should draw and write on the sheet of paper provided. Each pentagon should have 5 sides and 5 clear corners and the overlap should form a diamond.

"Copy this design" (show card with pentagon)   Incorrect   __

MMM_PCD   Correct   __   Not asked   9

Staple the pentagon sheet to the MMSE questionnaire and make sure study number is on it.

10. WRITING

The subject should write on the sheet of paper provided. The sentence should make sense. Ignore spelling errors.   Allow 30 seconds.

(Hand subject a pencil and paper)
  "Write any complete sentence on that piece of paper"

Incorrect   0

MMM_WRIT   Correct   1   Not asked   9

Thank the participant.

Staple the sheets with the pentagon and the sentence to the MMSE questionnaire and make sure study number is on all items.