Battery For ECT Related Cognitive Deficits (B4ECT-ReCoDe)

B4ECT-ReCoDe Questionnaire

I understand that you are receiving ECT. I would like to see how this has influenced your memory. For this, I would like to ask you some questions over the next few minutes.

1. AVLT shorter version (Recent memory) (Score 1 point each for items remembered in IR and DR)

1. Instruct the patient, "I will be reading out some words. Please listen to them carefully. After I finish saying the words, you have to say aloud as many words as you remember. You can say the words in any order."

2. Read out the 5 words from list A one at a time at the rate of one word per second.

3. Instruct the patient to tell the words that he/she can remember. Do not give any cues. Mark the words which are told correctly.

4. Repeat this 3 times and mark the correct answers each time. Inform the patient that the list is being repeated as part of the evaluation and not because he/she does not remember.

5. Trial number 4 – instead of list A, give words from list B and ask patient to recall words from List B.

6. Thereafter, ask the patient to recall words from list A and mark the correct answers (Do not read out list A again). (Immediate recall – IR)

7. Administer tests number 2, 3, 4 and 5(this will take 15 minutes approximately).

8. 20 minutes after immediate recall of list A, again ask patient to recall words from list A and mark correct answers. (Delayed recall – DR)

List A – Arm, Cat, Axe, Bed, PlaneList B – Boot, Monkey, Bowl, Cow, Finger

2. **Subjective memory questionnaire**(Score the ability remaining and not the disability)
   Ask these questions to the patient and caregiver:

   1 Do you think your/ his/ her memory has been affected by ECT? If so, how much has it decreased? How much is remaining on a scale of 0-100? Can you give some examples?

   2 How is your/ his/ her ability to search through the mind and recall memories that you /he/ she know(s) are there?

   3 How is your/ his/ her ability to remember names and faces of people you/ he/ she meet(s)?

   4 How is your/ his/ her ability to remember events that have happened more than a year ago?

   5 How is your/ his/ her ability to make sense of what people explain to you/ him/ her?

   6 How is your/ his/ her ability to recall events that happened a few minutes ago?

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3. **Orientation** (Score 1 if correct response and 0 if incorrect response)

    1. Is it morning or afternoon or evening?

    2. What day of the week is today?

    3. What is the date today?

    4. Which month is today?

    5. Which place is this?

4. **Autobiographical memory**: (10 points – question 5 has 2 points) Corroborate with relative if possible

    1. Name of patient's elementary school

    2. Name of any one schoolmate/ teacher of the patient.

    3. Name of any family friend known to the patients for > 5 years

    4. Details of events (in the patient's life) on the day Indira Gandhi (if > 40 years)/ Rajiv Gandhi was assassinated / or any other major public event.

    5. Name and details of any 2 television/ radio programmes broadcasted in the last 5 years and which are not being aired currently.

    6. Details of the patient's most recent job/ most liked job.

    7. Events that occurred on the day of Holi/ Ugadi/ Onam/ Pongal/ Durga Puja/ Ganesh Chaturthi/ Christmas/ Ramzan in the previous year.

    8. Account of a recent death/ funeral/marriage of a relative or friend of the patient.

    9. Events that occurred just before the patient was brought for admission to the hospital.

5. **Digit symbol substitution test** (score from the 14th square – one point for each correct answer)

Instruct the patient that, "There are four rows of digits on the sheet. Beneath each row of digits there is a blank row. You have to substitute a symbol for each digit. You have to go row by row. Do not skip boxes"

(The principle of substituting symbols for digits is explained using the table below. Demonstrate substitution of first 3 digits to the patient.)

"Now please start. Do as fast as you can."

Practice is given for the first ten squares (during practice, the patient can be stopped and corrected in case of errors). Start timing after practice items are completed. Stop the test after 3 minutes are over.

1	2	3	4	5	6	7	8	9
△	⊥	⅃	L	U	O	⋏	X	=

6. **Visual Retention** (Score 1 for correct location and 1 for correct object in the final attempt)

Now please try to remember the words which you heard repeatedly in the beginning. Recall as many words belonging to the first list as you can (AVLT delayed recall) … do you recall any more words from that list?

    1. Four objects of daily use (list given below) are shown to the patient and placed at specific locations (list given below) in front of the patient.

    2. After all four objects have been placed, the patient has to rehearse their locations immediately.

3   The patient can rehearse maximum thrice till he/she remembers all 4 locations correctly. Then, hide them once more.

4   Administer test no.7 (Letter number sequencing)

5   The patient is asked to recall the locations again after 5 minutes.

List of objects – comb, coin, key, pen, folded paper

List of locations – Drawer, under the bag, under the file, give to patient's caregiver, your pocket

7.   **Letter number sequencing** (working memory) (Score 1 for correct and 0 for incorrect response)

Instruct the patient that "I will be reading a list of letters and numbers. You have to arrange them in such a way that the numbers come first followed by letters. Letters and numbers, both, should be in correct sequence. For example, if I say 2-B-1-A, you will repeat it as 1-2-A-B" (Give more examples if required). Read out the following slowly – one word per sec (answers in brackets). Stop after failure of 3 consecutive sequences.

1.   L – 2 (2-L)

2.   6 – P (6-P)

3.   B – 5 (5-B)

4.   F – 7 – L (7-F-L)

5.   R – 4 – D (4-D-R)

6.   H – 1 – 8 (1-8-H)

7.   T – 9 – A – 3 (3-9-A-T)

8.   V – 1 – J – 5 (1-5-J-V)

9.   7 – N – 4 –L (4-7-L-N)

10.   8 – D – 6 – G – 1 (1-6-8-D-G)

11.   K – 2 – C – 7 – S (2-7-C-K-S)

12.   5 - P – 3 – Y – 9 (3-5-9-P-Y)

13.   M – 4 – E – 7 – Q – 2 (2-4-7-E-M-Q)

14.   W – 8 – H – 5 – F – 3 (3-5-8-F-H-W)

15.   6 – G – 9 – A – 2 – S (2-6-9-A-G-S)

16.   R – 3 – B – 4 – Z – 1 – C (1-3-4-B-C-R-Z)

17.   5 – T – 9 – J – 2 – X – 7 (2-5-7-9-J-T-X)

18.   E – 1 – H – 8 – R – 4 – D (1-4-8-D-E-H-R)

19.   5 – H – 9 – S – 2 – N – 6 – A (2-5-6-9-A-H-N-S)

20.   D – 1 – R – 9 – B – 4 – K – 3 (1-3-4-9-B-D-K-R)

21.   7 – M – 2 – T – 6 – F – 1 – Z (1-2-6-7-F-M-T-Z)

Now remember the 4 things hidden-tell me the name of the object and the location where I kept it (Visual recall)

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B4ECT-ReCoDe Answer sheet

1. **AVLT shorter version – 1 Points each for IR and DR**

List A	Trial1	Trial 2	Trial 3	List B	Trial 1	IR ListA	DR ListA
Aim				Boot			
Cat				Monkey			
Axe				Bowl			
Bed				Cow			
Plane				Finger			

2. **Subjective memory questionnaire (mark the ability and not the disability) Patient Caregiver**

1.
2.
3.
4.
5.
6.

0...100

Global rating of memory (mark P for patient and C for caregiver)

3. **ORIENTATION**

1	2	3	4	5

4. **Autobiographical memory questionnaire**

1	2	3	4	5A	5B	6	7	8	9

5. **Digit symbol test**

2	1	3	7	2	4	8	1	5	4	2	1	3	2	1	4	2	3	5	2	3	1	4	6	3

1	5	4	2	7	6	3	5	7	2	8	5	4	6	3	7	2	8	1	9	5	8	4	7	3

6	2	5	1	9	2	8	3	7	4	6	5	9	4	8	3	7	2	6	1	5	4	6	3	7

9	2	8	1	7	9	4	6	8	5	9	7	1	8	5	2	9	4	8	6	3	7	9	8	6

6. **Visual Retention (one point each for object and location)**

Item	Attempt1		Attempt2		Attempt3		Attempt after 5 min	
	Object	Location	Object	Location	Object	Location	Object	Location
1								
2								
3								
4								

7. **Letter number sequencing**

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

TOTAL SUBJECTIVE SCORE = Total score for patients + Total score for caregiver/Total number of questions answered   =

TOTAL OBJECTIVE SCORE = AVLT DR List A + AVLT IR List A + HMSE + Autobiographical + Digit symbol + Visual retention after 5 minutes + Letter number sequencing   =