

# DEL-S (Delirium Severity) Short Form Instrument

## Training Manual and Coding Guide

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## **INTRODUCTION AND BACKGROUND**

Delirium is a common, preventable, and morbid complication among older adults, associated with prolonged hospital stay, institutionalization, and increased risks for subsequent dementia and death. An estimated 12 million older Americans experience delirium each year, with excess annual healthcare costs of >\$164 billion attributable to delirium. To date, instruments to assess delirium have focused on the presence or absence of delirium. Here, we propose a new instrument designed to quantify the severity of an episode of delirium.

The ability to quantify delirium severity is of critical importance for clinical care and research. Delirium severity represents an important outcome measure for clinical trials, biomarker development, and prognosis studies. Further, delirium severity can be correlated with clinical outcomes, serving as a powerful, nuanced prognostic predictor. In our prior work, increasing delirium severity was directly and strongly associated with poor hospital and post-hospital outcomes (e.g., cognitive or functional decline, length of stay, institutionalization, death within 90 days, costs, and long-term cognitive decline.) Delirium severity can also be used to facilitate risk stratification to identify high-risk patients to enroll in intervention programs or trials. Validation of biomarkers against delirium severity measures will be essential to advance mechanistic understanding and speed development of pathophysiologically-based treatments. Moreover, delirium severity measures are already used clinically to estimate clinical care staffing needs and potential costs of care.

The DEL-S is a brief assessment tool that can be used to rate the severity of delirium symptoms. The DEL-S has a short and long form that incorporates responses and observations into a summary score. The DEL-S was developed with support from the National Institute on Aging. Rigorous measurement development methods were used to determine the best assessment items for scoring delirium severity. Using item response theory, our research team selected specific items derived based on an expert panel assessment of key domains of delirium severity. Our expert panel comprised of 9 experts from general internal medicine, geriatric medicine, geriatric psychiatry, cognitive neurology, gerontological nursing and social work. These experts refined the questions to be included in the final DEL-S tool through a rigorous adjudication process. The final items were evaluated using biostatistical methods to develop the scoring procedure.

The DEL-S can be completed in less than 3 minutes on average, and demonstrates high reliability and construct validity for prediction of relevant clinical outcomes. This manual explains how to use the DEL-S for both clinical and research purposes. We hope that this systematic, reproducible method for objectively rating delirium severity will help to advance clinical care and research in delirium.

## DEL-S Short Form Delirium Severity Instrument

<b>Cognitive Assessment - READ: I have some questions about your thinking and memory....</b>			<i>Coding Instructions: Incorrect also includes "I don't know", and No response/non-sensical responses.</i>	
Can you tell me your full name?	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT	<i>For any 'Incorrect' or 'Yes' responses, check the box in the final column designating which feature is present.</i>	
Can you tell me why you are here in the hospital?	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me what year it is now?	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me what day of the week it is today?	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me what month it is?	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me what time of day it is? ( <i>morning, afternoon or evening</i> )	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me where we are? ( <i>What is the name of this place</i> )	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me the months of the year backwards, starting with December? [D,N,O,S,A,J,J,M,A,M,F,J] <i>may prompt with "what is month before ...." for up to 2 prompts.</i>	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Can you tell me the days of the week backwards, starting with Saturday? [S,F,T,W,T,M,S] <i>may prompt with "what is day before ...." for up to 2 prompts.</i>	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Now I am going to say some numbers. Please repeat them back to me. Begin with: "2-9-1"	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
The next is: "3-5-7-4"	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
The next is: "6-1-9-2-7"	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
Now I am going to read some more numbers. I want you to repeat them in backwards order from the way I read them to you. For instance, if I say "6-4", you would say "4-6." OK? Begin with: "7-4-2" (2-4-7).	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
The next is: "5-3-8-4" (4-8-3-5).	<input type="checkbox"/> CORRECT	<input type="checkbox"/> INCORRECT		
<b>Patient Reported Ratings - READ: I am going to ask some questions about how you have been feeling...</b>			<u>Del-S Scoring</u>	
Q. Did you see, hear, or feel things that seemed out of place? For example, did you see something that did not belong in your room, such as a family member you know was not there?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	+1 if yes	
<b>Observer Ratings: To be completed after asking the question above. If answer below is YES, check mild or marked...</b>				
1. Did the patient have difficulty focusing attention, for example asking questions to be repeated often or having difficulty keeping track of what was being said?	<input type="checkbox"/> NO	<input type="checkbox"/> YES, MILD	<input type="checkbox"/> YES, MARKED	+1 if mild +2 if marked
2. Was the patient disoriented at any time during the interview, such as thinking he/she was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?	<input type="checkbox"/> NO	<input type="checkbox"/> YES, MILD	<input type="checkbox"/> YES, MARKED	+1 if mild +2 if marked
3. Did the patient demonstrate disorganized thinking, such as conversation that was rambling or off-target, ideas that were unclear or illogical, or showing disjointed thought process that did not make sense?	<input type="checkbox"/> NO	<input type="checkbox"/> YES, MILD	<input type="checkbox"/> YES, MARKED	+1 if mild +2 if marked
4. Overall, how would you rate this patient's level of consciousness? (Code most severe level)	<input type="checkbox"/> ALERT	<input type="checkbox"/> LETHARGIC	<input type="checkbox"/> STUPOR <input type="checkbox"/> COMA	+1 if Lethargic, Stupor, or Coma
5. During the interview, did the patient exhibit an unusually increased level of motor activity, such as restlessness, pulling at lines, making frequent sudden changes of position, or rapid or pressured speech, such as unusually rapid responses to questions?	<input type="checkbox"/> NO	<input type="checkbox"/> YES, MILD	<input type="checkbox"/> YES, MARKED	+1 if mild +2 if marked
6. During the interview, did the patient exhibit an unusually decreased level of motor activity, such as sluggishness, moving very slowly or unusually delayed speech, such as unusually slow responses to questions?	<input type="checkbox"/> NO	<input type="checkbox"/> YES, MILD	<input type="checkbox"/> YES, MARKED	+1 if mild +2 if marked

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**DEL-S Short Form:  
Scoring Instructions**

<b>DEL-S Short Form Score (Points)</b>	<b>Description</b>
0	No symptoms of delirium
1	One delirium-related symptom, but subsyndromal
2-3	Mild delirium severity
4-5	Moderate delirium severity
6-12	Severe delirium severity

**DEL-S Short Form: Full questionnaire**

**Recommended for clinical reference standard and research use**

COGNITIVE ASSESSMENT

**Could you tell me your full name:** \_\_\_\_\_

1- Correct          2 – Error          7 – Refusal    8 – DK          9 – Unable

**Can you tell me why you are here in the hospital? Record answer (open-ended):** \_\_\_\_\_

\_\_\_\_\_

1- Correct          2 - Error          7 – Refusal    8 – DK          9 – Unable

**Now I'd like to ask you some questions about your thinking and memory. Don't worry if you don't know the answers.**

ORIENTATION

CORRECT    ERROR    REF    DK

**What year is it now?**

1          2          7          8

**What day of the week is it today?**

1          2          7          8

**What is the month?**

1          2          7          8

**What time of day is it?**

1          2          7          8

*(morning, afternoon or evening)*

**Can you tell me where we are?**

1          2          7          8

*(PROMPT: What is the name of this place?)*

## **MONTHS OF THE YEAR BACKWARDS (MOYB)**

**Can you tell me the months of the year backwards? Say December as your first month?**

*May prompt with: “what is the month before December? Or if the subject stops with Month X, “say what is the month before Month X? ....” This prompt may be used 2 times in total. If participant starts reciting months forward, repeat overall instructions*

<u>Month</u>	<u>Response</u>	<u>Correct</u>	<u>Error</u>	<u>REF</u>	<u>DK</u>
1. December	_____	1	2	7	8
2. November	_____	1	2	7	8
3. October	_____	1	2	7	8
4. September	_____	1	2	7	8
5. August	_____	1	2	7	8
6. July	_____	1	2	7	8
7. June	_____	1	2	7	8
8. May	_____	1	2	7	8
9. April	_____	1	2	7	8
10. March	_____	1	2	7	8
11. February	_____	1	2	7	8
12. January	_____	1	2	7	8

*Record response verbatim.*

*Coding Instructions: If the subject leaves one month out, total recorded = 11, if the months are reversed, total recorded = 10*

- **\*\* MOYB** → if incorrect, go to DOWB  
→ if correct, go to digit span

DAYS OF THE WEEK BACKWARDS (DOWB)

**Can you tell me the days of the week backwards? Say Saturday as your first day.**

*May prompt with: “what is the day before Saturday? or if subject stops with Day X, say “what is the day before day X? ....” This prompt may be used 2 times in total. If participant starts reciting days forward repeat overall instructions.*

<u>Day</u>	<u>Response</u>	<u>Correct</u>	<u>Error</u>	<u>REF</u>	<u>DK</u>	<u>NA</u>
1. Saturday	___	1	2	7	8	9
2. Friday	___	1	2	7	8	9
3. Thursday	___	1	2	7	8	9
4. Wednesday	___	1	2	7	8	9
5. Tuesday	___	1	2	7	8	9
6. Monday	___	1	2	7	8	9
7. Sunday	___	1	2	7	8	9

*Record response verbatim. Coding Instructions: If the subject leaves one day out, total recorded=6; if 2 days are reversed, total recorded = 5*

DIGIT SPAN

**Now I am going to say some numbers. Please repeat them back to me.**

*[SAY DIGITS AT RATE OF ONE PER SECOND]*

<u>DIGITS FORWARD</u>	<u>Response</u>	<u>Correct</u>	<u>Error</u>	<u>Unable</u>	<u>REF</u>
<b>2 - 9 - 1</b>	___ - ___ - ___	1	2	6	7
<b>3 - 5 - 7 - 4</b>	___ - ___ - ___ - ___	1	2	6	7
<b>6 - 1 - 9 - 2 - 7</b>	___ - ___ - ___ - ___ - ___	1	2	6	7

**Now I am going to read some more numbers, but I want you to repeat them in backwards order from the way I read them to you. So, for example if I said 6-4, you would say 4-6.**

*[SAY DIGITS AT RATE OF ONE PER SECOND]*

<u>DIGITS BACKWARD</u>	<u>Response</u>	<u>Correct</u>	<u>Error</u>	<u>Unable</u>	<u>REF</u>
<b>7 - 4 - 2</b>	___ - ___ - ___	1	2	6	7
<b>5 - 3 - 8 - 4</b>	___ - ___ - ___ - ___	1	2	6	7



**PATIENT REPORTED SYMPTOMS**

Next, I am going to ask you some questions about how you have been thinking during the past day (i.e., over the past 24 hours).

Just let me know if you have experienced any of these things over the past day....

**PERCEPTUAL DISTURBANCE**

**Did you see, hear, or feel things that seemed out of place? For example, did you see something that did not belong in your room, such as a family member you know was not there? *If Yes, probe for details.***

1 - Yes      2 - No      7 - REF      8 - Uncertain

**# If question above is 'Yes', please probe for frequency, duration and disruption of care and note all details below:**

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**END OF INTERVIEW**

## **OBSERVATIONAL RATINGS BY INTERVIEWERS**

*Immediately after completing the interview, please answer the following questions based on what you observed during the entire interview and cognitive function assessment, or based on reports from nurses or family members.*

### **INATTENTION**

1. Did the patient have difficulty focusing attention, for example asking questions to be repeated often or having difficulty keeping track of what was being said?

Not present at any time during interview	- 1
Present at some time during interview but in mild form	- 2
Present at some time during interview in marked form	- 3
Uncertain	- 8

### **DISORIENTATION**

2. Was the patient disoriented at any time during the interview, such as thinking he/she was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?

Not present at any time during interview	- 1
Present at some time during interview but in mild form	- 2
Present at some time during interview in marked form	- 3
Uncertain	- 8

### **DISORGANIZED THINKING**

3. Did the patient demonstrate disorganized thinking, such as conversation that was rambling or off-target, ideas that were unclear or illogical, or showing disjointed thought process that did not make sense?

Not present at any time during interview	- 1
Present at some time during interview but in mild form	- 2
Present at some time during interview in marked form	- 3
Uncertain	- 8

### **ALTERED LEVEL OF CONSCIOUSNESS**

4. Overall, how would you rate this patient's level of consciousness? (*Code most severe level*)

Alert (Normal)	- 1
Lethargic (Drowsy, easily aroused)	- 2
Stupor (Difficult to arouse)	- 3
Coma (Unarousable)	- 4

#### PSYCHOMOTOR AGITATION

5. During the interview, did the patient exhibit an unusually increased level of motor activity, such as restlessness, pulling at lines, making frequent sudden changes of position, or rapid or pressured speech, such as unusually rapid responses to questions?

Not present at any time during interview	- 1
Present at some time during interview but in mild form	- 2
Present at some time during interview in marked form	- 3
Uncertain	- 8

#### PSYCHOMOTOR RETARDATION

6. During the interview, did the patient exhibit an unusually decreased level of motor activity, such as sluggishness, moving very slowly or unusually delayed speech, such as unusually slow responses to questions?

Not present at any time during interview	- 1
Present at some time during interview but in mild form	- 2
Present at some time during interview in marked form	- 3
Uncertain	- 8

## **Recommended Training Procedure for Clinical Reference Standard or Research Use**

We recommend the following procedure to initiate and train new interviewers to the use of DEL-S. An experienced user, Principal Investigator (PI), research coordinator or project director should provide a general overview on the DEL-S. Afterwards, we recommend the following approach:

- One-on-one sessions that pair interviewers who practice the interviews with each other. Ideally an experienced interviewer is paired with a new interviewer.
- Pilot the interviews on institutional floors with delirious and non-delirious patients (hospital, nursing home, inpatient rehabilitation). These interviews are followed up with feedback given to each other (experienced interviewer and new interviewers).
- Inter-rater reliability assessments: These are done with pairs of interviewers observing the same patient. One interviewer administers the DEL-S and the other observes. They both score the patient. On the next paired interview, the other interviewer performs the interview. Ideally, this should be done on 5 delirious and 5 non-delirious patients. This process should be repeated until they achieve an agreement of >80% on total scores on the DEL-S. Early paired ratings should be observed by the PI, research coordinator or project director. All discrepancies should be discussed and resolved.
- Special coding sessions are recommended once a month for all the interviewers with the PI, research coordinator or project director to answer questions about scoring DEL-S. In addition, the inter-rater reliability assessments are conducted every 6 months for the duration of the study.

## Specific Item-By-Item Instructions for Training

**General Instructions:** For all cognitive items, continue the interview even if the patient cannot answer. Make a note if the answer is inaccurate AND whether questioning was challenging for any reason (visitor or nurse in the room, room service bringing food tray, transport coming to take patient, etc.)

**Question: Could you tell me your full name?**

- Must give exact first and last names; confirm with patient wristband or medical record.

**Question: Can you tell me why you are here in the hospital?**

- Probe for details. Confirm with medical record.

### ORIENTATION

- If the patient answers nonsensically, or does not answer at all, code as an error. Each question can be stated twice. Be sure to note behavior on the paper and provide an explanation if the line is blank (ex: Patient did not answer). This also may help when you code your observations later.

**Question: What year is it now?**

- Answer must be exact

**Question: What day of the week is it today?**

- Answer must be exact

**Question: What is the month?**

- Answer must be exact

**Question: What time of day is it?**

- Note: Options are morning, afternoon, or night

**Question: Can you tell me where we are?**

- **Prompt (Alternate question): What is the name of this place?**

*Note: Document if any answer is incorrect AND whether interview was difficult or challenging in any way.*

### MONTHS OF YEAR BACKWARDS (MOYB)

**Can you tell me the months of the year backwards? Say December as your first month.**

- If the patient does not answer after you ask him/her the question, say: "Can you tell me what month comes before December?" If the patient starts to give the months of the year backwards and stops midway through answering, encourage him/her to continue. Say, "Can you keep going? Can you tell me what comes before (say the last month that the patient gave)?" If the patient cannot continue after s/he has been prompted two times for the same month, stop prompting and proceed to the next question.

## DAYS OF WEEK BACKWARDS (DOWB)

**Can you tell me the days of the week backwards? Say Saturday as your first day.**

- Use the same prompting approach as above for months of the year. If the patient cannot continue after being prompted 2 times in total, stop prompting and proceed to the next question.

## Digits Forward

- Make sure you have the patient's attention and make eye contact. Say digits at a rate of one per second. Numbers may not be repeated. If asked to repeat, say, "I'm sorry I can only say them once. Let's try the next one."
- "Unable" should be reserved for a true inability to perform the item for physical reasons, such as complete deafness or coma. All other reasons should be coded as incorrect.

2 – 9 – 1

3 – 5 – 7 – 4

6 – 1 – 9 – 2 – 7

## Digits Backward

- Use the same approach as above for Digits Forward

7 – 4 – 2

5 – 3 – 8 – 4

## Patient Reported Symptoms: Perceptual Disturbances

**Question: Did you see, hear, or feel things that seemed out of place? For example, did you see something that did not belong in your room, such as a family member you know was not there?**

- Probe: Have you seen or heard things that you know were not really there? Example is when patient says he thought the pile of laundry was a person in his room, or heard a pager and thought it was a gunshot.
- Record all details: For this question, if the patient responds yes (1), ask for details about frequency, duration and disruption of care, rate the severity of the perceptual disturbances as either mild, moderate or severe. Record open-ended notes in section provided. If the patient hesitates and is noncommittal, such as "Well, I'm not sure, but I don't think I've had anything like that..." code as no (2). The assumption is that patients who have had this experience are sure about it and are able to describe it. If he/she responds "I don't know, I don't remember," code as I don't know (8).  
\*\*Any nonsensical responses should be coded as DK/Uncertain\*\*.
- Timeframe: If the patient reports no perceptual disturbances in response to this question but verbally reports having a disturbance later (or earlier) in the interview, rephrase the appropriate questions and ask whether the patient did actually have the experience at *any* time. For example, say, "Now let me make sure that I understand

you. Did you say that you thought you saw... ?” Then find out exactly when it happened, that is, whether it happened within the last 24 hours (including the previous night). If the response is yes, within 24 hours, then change the appropriate response category to yes (1).

- When the patient is Uncertain: If the patient does not understand the question or gets anxious, say: “Sometimes in the hospital, people feel mixed up and think strange things have happened to them. I want to know whether any of these things have happened to you.” Choose ‘uncertain’ if patient continues to states s/he is unsure or cannot answer.

### **OBSERVATIONAL RATINGS BY INTERVIEWER**

- The response **Mild** is defined as the behavior was present or observed during the interview process, but did not significantly interfere with the interview process.
- The response **Marked** is defined as behavior was present or observed during the interview process, and did significantly interfere with the interview process.
- The response **Uncertain** can be chosen when the interviewer could not assess behavior, for example, due to suboptimal conditions and/or quality was poor. For example, incomplete interview, intubation, coma, etc.

### **INATTENTION**

#### **1. Did the patient have difficulty focusing attention, for example asking questions to be repeated often or having difficulty keeping track of what was being said?**

- Definition: Reduced ability to maintain attention to external stimuli and to appropriately shift attention to new external stimuli. Respondent seems unaware or out-of-touch with environment (example: dazed, fixated, or darting attention).
- Examples:
  - Questions must be frequently repeated because attention wanders, NOT because of decreased hearing
  - Unable to gain respondent’s attention or to make any prolonged eye contact. Respondent’s focus seems to be darting around room
  - Respondent keeps repeating answers to previous question (perseveration)
  - Respondent is dazedly staring at the television. When you ask a question, he looks at you momentarily but does not answer. Then he continues to stare at the TV.
  - Cognitive function tests during interview: errors on digit spans, days of week backwards, months of year backwards (NOTE: multiple errors needed to code as present).
- Note: Should be assessed separately from level of consciousness. A subject who is lethargic or stuporous may still have intact attention during periods of arousal.

## DISORIENTATION

### **2. Was the patient disoriented at any time during the interview, such as thinking s/he was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?**

- Definition: Impaired ability to locate oneself in one's environment, in reference to time, place or person.
- Examples:
  - During the interview in the hospital, respondent thinks she is at home
  - Respondent thinks it is night-time, during the day
  - Respondent repeatedly thinks you are her grandson (NOT due to visual difficulties)
  - Cognitive function tests: errors on orientation items

## DISORGANIZED THINKING

### **3. Did the patient demonstrate disorganized thinking, such as conversation that was rambling or off-target, ideas that were unclear or illogical, or showing disjointed thought process that did not make sense?**

- Definition: Disorganized thinking, as indicated by rambling, irrelevant or incoherent speech.
- Examples:
  - (Irrelevant or nonsense answer) You ask the respondent if they needed help with eating, and the response is: "Let's go get the sailor suits!"
  - (Illogical flow of ideas) You ask the respondent, "How tall are you?" The reply is: "Tall? I need to get to the yellow brick road. Where's the party? My, oh no....!"
- Note: Patient must be able to speak or write (example: not comatose, intubated) to assess this item. Do not score slurred or garbled speech, reversed words, or reversed letters as disorganized speech.

## ALTERED LEVEL OF CONSCIOUSNESS

### **4. Overall, how would you rate this patient's level of consciousness?**

- Definition:
  - Alert - Normal
  - Vigilant - Hyperalert, overly sensitive to environmental stimuli, startles easily
  - Lethargic – Drowsy, easily aroused
  - Stupor – Difficult to arouse
  - Coma – Unarousable
- Examples:
  - Vigilant – The respondent startles easily to any sound or touch. Her eyes are wide open.



- Lethargic – The respondent repeatedly dozes off while you are asking questions. Difficult to keep respondent awake for interview, but does not respond to voice or touch.
- Stupor – The respondent is very difficult to arouse and keep aroused for the interview, requiring shaking and/or repeated loud speaking.
- Coma – The respondent cannot be aroused despite shaking and speaking very loudly.
- Notes:
  - When entering the room and waking a patient up the first time, reduced level of consciousness should not be coded. Even if you have to prod them strongly to wake them, this first ‘wake up’ is allowed as normal.
  - A reduced level of consciousness should only be coded when there is evidence of falling asleep while you are still in the room. *This should be more than lying down with their eyes closed.*
    - To determine if someone is really asleep, you will need to be patient. If you do not get a response to a question and the patient has their eyes closed, please wait at least 20-25 seconds to see if they respond spontaneously. If they do not respond, carefully look for additional signs of sleep (eyes rolled back, head bobbing, snoring, twitching, etc.).
    - If eyes are closed with no signs of sleep, say their name and ask them if you should repeat the question or if they were ‘just thinking’ etc.
- Assessing level of consciousness: After the initial wake-up (which can require more stimuli)--to assess level of consciousness, we will utilize the following 3 successive stimuli for arousal:
  - Loud voice
  - Gentle touch (hand, then arm)
  - Loud voice and gentle shaking of one shoulder
- For scoring:
  - If patient arouses readily to voice or gentle touch, then classify as lethargic.
  - If requires loud voice and shaking repeatedly, then classify as stupor.
  - If unarousable by any of these means, classify as coma.
  - If patient’s eyes are closed, patient answers questions correctly and none of the stimuli described above are needed, score as alert.
  - Always note if any prodding was needed to get questions answered.

### PSYCHOMOTOR AGITATION

- 5. During the interview, did the patient exhibit an unusually increased level of motor activity, such as restlessness, pulling at lines, making frequent sudden changes of position, or rapid or pressured speech, such as unusually rapid responses to questions?**

- Definition: Greatly increased level of activity as compared with the norm. These behaviors would indicate restlessness of agitation. Cardinal features include repeated or constant shifting of position, increased speed of motor responses, repetitive movements (example grasping or picking behaviors). May be voluntary or involuntary.
- Examples:
  - The respondent appears “antsy” and is constantly shifting his position in bed.
  - The respondent is repeatedly pulling at her sheets and IV tubing (note: behavior appears inappropriate and purposeless).
  - The respondent is pacing about the room during the interview.
- Note: Should be assessed separately from level of consciousness. Psychomotor agitation may be present even in the face of stupor.

### PSYCHOMOTOR RETARDATION

- 6. During the interview, did the patient exhibit an unusually decreased level of motor activity, such as sluggishness, moving very slowly or unusually delayed speech, such as unusually slow responses to questions?**
- Definition: Greatly reduced or slowed level of activity as compared with the norm. These behaviors indicate sluggishness, slowing. Cardinal features include decreased movement, slowness of motor responses, staring (but still aware of environment). May be voluntary or involuntary.
  - Examples:
    - Prolonged delay between when interviewer asks question and respondent begins to answer.
    - Respondent moves body very slowly to pick up a cup.
    - Respondent stares into space but is still aware of the environment.
  - Note: Respondent need not be lethargic (altered level of consciousness) to have slowness of response. Should be assessed separately from level of consciousness. Psychomotor retardation may be present with normal level of consciousness; also, patients with lethargy, stupor do NOT necessarily have psychomotor retardation.

### **Tips for Success: The Delirium interview**

1. The interview “begins” at the door as you observe the patient and his/her behavior on approach. It ends when you leave sight of the patient.
2. When approaching a patient, first observe patient response as he/she sees you approach. If no engagement is made, seek patient’s attention with progressively stronger stimuli: speak to patient, lightly touch, gently shake or tap, and lastly shake moderately to arouse.
3. Make sure the patient has glasses on and hearing aids in if available.
4. Speak slowly and clearly. Do not rush.
5. Each question can be stated twice. “I don’t know,” no response at all or a nonsense response all count as incorrect. “Refused” is only used if the patient actively refuses to answer a question.
6. Prepare yourself to code what you see and hear. Make no assumptions as to the cause of the behavior and take ample notes to support your ratings.
7. Jot notes describing patient behavior and performance to support observations.
8. In assessing for disturbance of behavior, remember the comparison is to the norm of human behavior. No excuses, such as the patient is in the hospital, ill, older, just got medication, etc.
9. If patient shows increasing impatience with interview and seems to be tiring of questions, offer positive reinforcement and assure that there are just a few more questions remaining.
10. Complete observational scoring sections of interview as soon as interview ends.
11. Review each item of the interview before completing the scoring.
12. The assessment of attention is key in delirium. Carefully observe patient’s ability to maintain and appropriately shift attention during both informal and formal testing items.
13. In cases of incomplete patient questioning, the observational items should still be completed.

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