

## Multiple Choice Test Form B Answers (please refer to the training manual for further explanations)

1. A patient spontaneously starts singing at the top of their lungs.
  - Impulsivity.
2. When asked to copy a square on a piece of paper, they keep tracing over their lines over and over.
  - Motor perseveration, in that the person is perseverating in the same sequence of movements.
3. When asked to keep their arms outstretched and resist upward movement, the patient's arms easily rise with slight upward pressure from the examiner.
  - Mitgehen.
4. A patient is standing at the nurse's station and spontaneously kicks the patient standing next to them.
  - Combativeness. This is spontaneous, non-premeditated aggression directed toward a person. On the Bush-Francis Catatonia Rating Scale, impulsivity cannot involve aggression toward people.
5. A patient keeps raising their fork to their mouth to eat, but they do not put the food in their mouth.
  - Ambitendency.
6. When asked to sit down, the patient hurriedly sits down.
  - Automatic obedience.
7. As an arm is passively extended, the resistance/muscle tone increases throughout the range of movement proportional to the applied force such that the arm cannot be fully extended.
  - Gegenhalten.
8. Speaking fewer than five words per minute during the course of the interview.
  - Mutism.
9. Whispering that is intelligible.
  - Not mutism. This is manneristic speech, similar to talking in a robotic voice or with a foreign accent.
10. Speaking so softly that words are unintelligible.
  - Mutism.
11. The patient talks to themselves yet does not respond to any questions during the interview.
  - Not mutism. This is negativism because the patient can clearly talk but chooses not to do so in conversation.
12. A patient with autism who is nonverbal barely speaks during the interview.
  - Not mutism. There is a pre-existing neurodevelopmental disorder that accounts for this finding.
13. Repeating the exact expression over and over like a broken record (e.g. "What time is it? What time is it? What time is it?").
  - Verbigeration.
14. A patient who speaks in words that rhyme (e.g. "It's time, here's a dime, I'm fine, Sunshine").

- This is not a catatonic feature. This is clanging associations (from *Ger* “klang” for “sound”), which can be seen in psychotic illness or mania.
15. Speaking with a much deeper tone of voice than the patient ordinarily uses.
    - Manneristic speech. The speech is bizarre but purposeful.
  16. When asked a series of questions, the patient gives his dog's name as the answer to all of them, even when this was only the correct answer to the first question.
    - Verbal perseveration. The patient is stuck on a topic rather than talking like a skipping record, which would be verbigeration.
  17. Repeating what the examiner says.
    - Echolalia.
  18. The patient repeatedly returns to the topic of wanting a coloring book even though they are told they can have it after the exam is complete.
    - Verbal perseveration.
  19. A patient takes off his shirt, whirls it around his head, and incidentally hits the examiner.
    - This is not combativeness. This is impulsivity because the impulsive act was not aggression directed toward a human. Hitting the examiner was incidental.
  20. A patient watching TV in the common space shouts, "Shut up!" and throws the remote control at another patient who has been talking loudly.
    - This is not combativeness. The patient has a rationale for this aggressive act. Combativeness on the BFCRS is purposeless.
  21. A patient throws a chair through a window.
    - This is not combativeness. Combativeness is aggression directed at a human being.
  22. As the examiner is checking a patient's muscle tone, the patient kicks him in the shins. When asked why, they say, "I don't know."
    - Combativeness. It is an impulsive, aggressive act directed at a human without a clear purpose.
  23. Attempts to open a patient's jaw are met with resistance, yet the patient talks freely during the rest of the evaluation.
    - Negativism. The patient has clearly demonstrated that they can move their jaw. The resistance to movement is volitional.
  24. A sitting patient keeps their legs raised off the ground after being positioned by the examiner.
    - Catalepsy. Catalepsy is when a patient maintains a position placed in by the examiner. Posturing is a position that the patient has assumed themselves.
  25. Passive extension of a patient's leg is initially met with resistance/stiffness but then quickly releases to allow the examiner to move the leg.
    - Waxy flexibility. Of note, this differs from the definition of waxy flexibility in the *DSM-5*, which describes it as a mild resistance throughout the whole range of movement. In the BFCRS, this would be scored as rigidity only.
  26. Attempts to move a patient's leg are met with increased tone throughout the whole range of motion, such that the passive movement feels like bending stiff clay.
    - Rigidity. This differs from the *DSM-5* definition, which would describe this as waxy flexibility.

27. As an arm is passively extended, the resistance/muscle tone increases in proportion to the applied force throughout the range of movement such that the arm cannot be fully extended.
  - Gegenhalten.
28. Lying back in a chair awkwardly but not against gravity (e.g. leg draped over one arm of the armchair).
  - Immobility. This is not posturing because the position is not being held against gravity.
29. A patient's neck is fixed and cannot be turned.
  - Rigidity.
30. Leaning against a wall for an hour.
  - Mundane posturing. This is a type of posturing. Even though the position is not bizarre, it is maintained for an unusually long period of time against gravity. In this example, leaning against a wall requires leg and truncal tone that resists gravity.
31. A patient initially allows passive full range of movement of his leg, but then the leg becomes stiff and no further movement is possible despite asking the patient to relax it.
  - Negativism. In this case, we know that the patient has normal tone in his leg. It is, therefore, a volitional resistance to movement that leads to the onset of stiffness.
32. You ask the patient to wave, and they continue to wave for an additional three seconds even after being asked to stop.
  - Motor perseveration.
33. A patient repeatedly flicks their own earlobe.
  - Stereotypy. Stereotypy is a repetitive movement of a specific body part, in this case of the fingers. This is different from excitement, which involves increased movement of the whole body.
34. A patient repeatedly sticks out their tongue.
  - Grimacing. Repetitive movements, which would be called a stereotypy elsewhere in the body, are classified as a grimacing in the face.
35. A patient marches with a dramatic gait down the hall.
  - Mannerism. This is a purposeful, bizarre behavior that is odd even if performed only once.
36. A patient repeatedly blinks their eyes and furrows their brows in an exaggerated manner.
  - Grimacing.
37. A patient continuously squirms in their chair.
  - Excitement. This can look similar to akathisia; if a patient has known, pre-existing akathisia, excitement should not be scored.
38. A patient repeatedly runs their hands through their hair.
  - Stereotypy. This is a repetitive movement in one part of the body and not inherently bizarre. It is only odd in the number of times it is repeated.
39. A patient hops down the hall like a frog.
  - Mannerism.

40. A patient keeps their lips puckered.
  - Grimacing (specifically, *schnauzkrampf*)
41. A patient with serotonin syndrome is sweating profusely.
  - Not autonomic abnormality because scoring autonomic abnormality is *not* excluded in the context of an acute medical illness. Malignant catatonia is itself an acute medical illness.
42. A patient with a recent stroke is hypertensive and tachycardic.
  - This is autonomic abnormality. Even though there is an acute etiology, all acute changes in diaphoresis, temperature, heart rate, blood pressure, and breathing are scored as autonomic abnormalities in the BFCRS.
43. A patient is significantly bradycardic and hypotensive.
  - This is autonomic abnormality. Both elevated and reduced values should be scored.
44. The patient has a straight-ahead gaze even when the head is manually turned by the examiner (i.e. absent 'doll's eyes' sign).
  - Staring.
45. A patient who has been squatting for the past 15 minutes will not stand up when asked to.
  - Posturing. A finding is not considered negativism if it can be better explained by another finding.
46. The patient has not eaten in 24 hours despite being able to talk to staff and ambulate.
  - Withdrawal. The patient is clearly not immobile, so this cannot explain why they are not eating/drinking.
47. The patient who has not initiated attempts to move or eat in over 24 hours begins to eat when staff feed them.
  - Immobility. The patient hasn't eaten due to not being able to get up to eat. Therefore, it is not withdrawal.
48. A patient will not look at the face of the examiner throughout the whole interview even when asked to; however, they are otherwise able to track the movement of objects in the room.
  - Withdrawal. The patient is not blankly staring. They are actively avoiding eye contact with another human. Withdrawal better explains this finding than negativism.
49. A patient who has been reclining motionless in their chair throughout the interview will not stand up when asked to.
  - Immobility.
50. A patient's eyes remain tightly shut in response to manual attempts to open them by the clinician.
  - Negativism.

# Bush-Francis Catatonia Rating Scale

Patient: Test Patient

Date:

Time:

Examiner:

State examination

Interval examination over \_\_\_ hr.

## 1. Excitement:

Extreme hyperactivity, constant motor unrest which is apparently non-purposeful. Not to be attributed to akathisia or goal-directed agitation.

0= Absent

1= Excessive motion, intermittent.

2= Constant motion, hyperkinetic without rest periods.

3= Full-blown catatonic excitement, endless frenzied motor activity.

## 2. Immobility/ Stupor:

Extreme hypoactivity, immobile, minimally responsive to stimuli

0= Absent

1= Sits abnormally still, may interact briefly.

We would accept either answer for this one

2= Virtually no interaction with external world.

3= Stuporous, non-reactive to painful stimuli.

## 3. Mutism:

Verbally unresponsive or minimally responsive.

0= Absent

1= Verbally unresponsive to majority of questions; incomprehensible whisper.

2= Speaks less than 20 words/5 minutes.

3= No speech.

## 4. Staring:

Fixed gaze, little or no visual scanning of environment, decreased blinking.

0= Absent

1= Poor eye contact, repeatedly gazes less than 20 sec between shifting of attention; decreased blinking

2= Gaze held longer than 20 sec, occasionally shifts attention.

3= Fixed gaze, non-reactive.

## 5. Posturing/ Catalepsy:

Spontaneous maintenance of posture(s), including mundane (e.g., sitting/standing for long periods without reacting).

0= Absent

1= Less than one minute.

2= Greater than one minute, less than 15 minutes.

3= Bizarre posture, or mundane maintained more than 15 min.

## 6. Grimacing:

Maintenance of odd facial expressions.

0= Absent

1= Less than 10 sec.

2= Less than 1 min.

3= Bizarre expression(s) or maintained more than 1 min.

## 7. Echopraxia/ Echolalia:

Mimicking of examiner's movements/ speech.

0= Absent

1= Occasional.

2= Frequent.

3= Constant.

## 8. Stereotypy:

Repetitive, non-goal-directed motor activity (e.g. finger-play; repeatedly touching, patting or rubbing self); abnormality not inherent in act but in its frequency.

0= Absent

1= Occasional.

2= Frequent.

3= Constant.

## 9. Mannerisms:

Odd, purposeful movements (hopping or walking tiptoe, saluting passersby or exaggerated caricatures of mundane movements); abnormality inherent in act itself.

0= Absent

1= Occasional.

2= Frequent.

3= Constant.

## 10. Verbigeration:

Repetition of phrases or sentences (like a scratched record).

0= Absent

1= Occasional.

2= Frequent, difficult to interrupt.

3= Constant.

## 11. Rigidity:

Maintenance of a rigid position despite efforts to be moved, exclude if cog-wheeling or tremor present.

0= Absent

1= Mild resistance.

2= Moderate.

3= Severe, cannot be repositioned.

## 12. Negativism:

Apparently motiveless resistance to instructions or attempts to move/examine patient. Contrary behavior, does exact opposite of instruction.

0= Absent

1= Mild resistance and/or occasionally contrary.

2= Moderate resistance and/or frequently contrary.

3= Severe resistance and/or continually contrary.

## 13. Waxy Flexibility:

During repositioning of patient, patient offers initial resistance before allowing himself to be repositioned, similar to that of a bending candle.

0= Absent.

3= Present.

## 14. Withdrawal:

Refusal to eat, drink and/or make eye contact.

0= Absent.

1= Minimal PO intake/ interaction for less than one day.

2= Minimal PO intake/ interaction for more than one day.

3= No PO intake/interaction for one day or more.

## 15. Impulsivity:

Patient suddenly engages in inappropriate behavior (e.g. runs down hallway, starts screaming or takes off clothes) without provocation. Afterwards can give no, or only a facile explanation.

0= Absent

1= Occasional

2= Frequent

3= Constant or not redirectable

## 16. Automatic Obedience:

Exaggerated cooperation with examiner's request or spontaneous continuation of movement requested.

0= Absent

1= Occasional

2= Frequent

3= Constant

## 17. Mitgehen:

"Anglepoise lamp" arm raising in response to light pressure of finger, despite instructions to the contrary.

0= Absent

3= Present

## 18. Gegenhalten:

Resistance to passive movement which is proportional to strength of the stimulus, appears automatic rather than willful.

0= Absent

3= Present

## 19. Ambitendency:

Patient appears motorically "stuck" in indecisive, hesitant movement.

0= Absent

3= Present

## 20. Grasp Reflex:

Per neurological exam.

0= Absent

3= Present

## 21. Perseveration:

Repeatedly returns to same topic or persists with movement.

0= Absent

3= Present

## 22. Combativeness:

Usually in an undirected manner, with no, or only a facile explanation afterwards.

0= Absent

1= Occasionally strikes out, low potential for injury

2= Frequently strikes out, moderate potential for injury

3= Serious danger to others

## 23. Autonomic Abnormality:

Circle: temperature, BP, pulse, respiratory rate, diaphoresis.

0= Absent

1= Abnormality of one parameter [exclude pre-existing hypertension]

2= Abnormality of 2 parameters

3= Abnormality of 3 or greater parameters