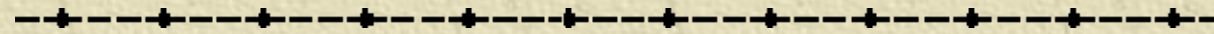


# Cognitive Assessment and Mini Mental Status Exam for Nurses



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Seniors Mental Health Capital

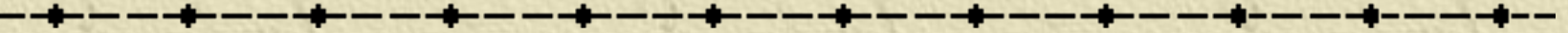
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# Objectives

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- ✦ An understanding of what makes up a cognitive assessment.
- ✦ A review of the MMSE
- ✦ An understanding of the scoring of the MMSE
- ✦ An understanding of what the MMSE score represents (and does not represent)

# Scoring the MMSE (The Nova Scotian Style)



✦ The QEII/Capital Health form was revised in 2002 by a joint committee involving geriatric medicine and geriatric psychiatry with an understanding that the score ceases to become meaningful if the tool is not applied and scored in a standardized manner.

✦ Based on Folstein & Folstein (1975)

# Scoring (Nova Scotia)

✦ Molloy (1999)

✦ Murphy, Freter & Chisholm (2001)



# Scoring (Nova Scotia)

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✦ Mrs Crumble

✦ What year is this?

- 2000 0

✦ 0 accept only the exact answer for year

# Scoring

✦ Mrs Crumble:

- ✦ What season is this?

- Spring

- ✦ 0 this is a hard one in NS—in March it is not spring here. The guidelines say that during the last month of the old season and the first month of the new season you can accept either.

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ What month of the year is it?

- March

✦ 1 You can accept the correct month. On the last day of the month or the first day of a new month you can accept either month



# Scoring (Nova Scotia)

✦ Mrs Crumble:

- ✦ What is today's date?

- 0

- ✦ You can accept previous or next date (ie if it is the 7<sup>th</sup> you can accept 6<sup>th</sup> , 7<sup>th</sup>, or 8<sup>th</sup>)

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ What day of the week is it?

• 0

✦ Accept only the exact day

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ What country are we in?

• 1

✦ Accept exact answer only

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ What province are we in?

• 1

✦ Accept exact answer only

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ What city are we in?

• 1

✦ Accept exact answer only

# Scoring (Nova Scotia)

✦ Mrs Cumble:

- ✦ What is the name of this hospital/place? (You may wish to use the persons address if you are doing a home visit)

- 0

- ✦ Accept the correct answer

# Scoring (Nova Scotia)

✦ Mrs Crumble:

- ✦ What floor are we on now? (Alternatively you may want to use what is your room number/what room are we in?)
  - 0 (I have no idea)
- ✦ You can accept only the correct answer.

# Scoring (Nova Scotia)

✦ Mrs Crumble:

✦ Three words. Can be repeated maximum 5x.

Ball/Car/Man

Ball man car

3 Score one point for each correct word-no matter the order



# Scoring (Nova Scotia)

✦ Mrs Crumble:

- ✦ Spell the word WORLD
- ✦ Spell WORLD backwards

- D L O R W

- 2 Count the number of correct letters before the first mistake.

# Scoring/ Nova Scotia

✦ Mrs Crumble:

- ✦ Show your wristwatch and ask “what is this called?”
  - 1
- ✦ Accept wristwatch, watch. Do not accept timepiece, clock, time.

# Scoring/Nova Scotia

✦ Mrs Crumble:

- ✦ Show pencil (pen). Ask “What is this called?”
  - 1
- ✦ Accept correct answer only

# Scoring/Nova Scotia

✦ Mrs Crumble:

- ✦ Ask pt to repeat “No ifs ands or buts”

- 0

- ✦ Repetition must be exact. If pt has significant hearing deficit note this on the MMSE sheet.

# Scoring/Nova Scotia

✠ Mrs Crumble:

- Instruct pt to read the words on the page and do as it says. Show the enlarged words “CLOSE YOUR EYES”.
- 1
- Score only if they close their eyes. Can repeat instructions up to 3X.

# Scoring/Nova Scotia

✦ Mrs Crumble:

- Ask pt if they are right or left handed; Use *NonDominant Hand* for this task.
- Ask pt “Take this piece of paper in your ----- hand, fold it in half using both hands, then put the paper on the floor”
  - 2
  - She took it in the correct hand and placed it on the floor—but she repeatedly folded it (perseveration) so lost 1 point.

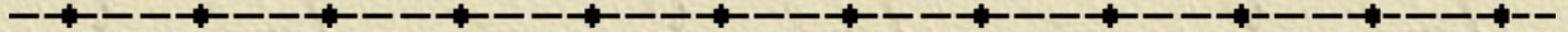
# Scoring/Nova Scotia

✦ Mrs Crumble:

✦ Ask pt to write a sentence:

- “This is all quite silly.”
- 1 Score 1 point for a complete sentence that makes sense; ignore spelling errors, handwriting.

# Scoring/Nova Scotia



✠ Mrs Crumble:

- Copy this design
- 0 Score point only if there are two 5-sided figures intersected to create a 4-sided figure. Rotation does not matter.



# Scoring/Nova Scotia

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✦ Mrs Crumble:

✦ Score 16/30

✦ General guidelines for interpretation:

- ◆ 27-30/30 no cognitive impairment
- ◆ 20-26/30 mild cognitive impairment
- ◆ 10-19/30 moderate cognitive impairment
- ◆ 0-9/30 severe cognitive impairment

# Scoring/Nova Scotia

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## ✦ Things to remember:

- ✦ Do not provide clues to the correct answers.
- ✦ If your pt has a family member or friend accompanying them ask them not to help or answer for the pt.
- ✦ Encourage the pt to try each question.
- ✦ Remember that this is a screening tool-not a diagnostic tool.

# Cognitive Assessment

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✦ Parts of a full assessment include:

- ✦ Functional abilities
- ✦ General appearance
- ✦ Level of consciousness
- ✦ Emotional state
- ✦ Flow of speech/thoughts
- ✦ Insight/judgement
- ✦ memory

# Cognitive Assessment con't

✦ Parts of cognitive assessment:

- ✦ Language
- ✦ Attention
- ✦ Visuospatial skills

# Cognitive Assessment

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## ✦ General Appearance:

- ✦ Is the person clean?
- ✦ Are clothes clean/in good repair?
- ✦ Glasses/dentures/hearing aids
- ✦ Eye contact?
- ✦ Posture/comfort?

# Cognitive Assessment

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## ✦ Level of Consciousness:

- ✦ Hypervigilant
- ✦ Alert
- ✦ Lethargic
- ✦ Obtunded
- ✦ Comatose!!!

# Cognitive Assessment

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## ✦ Emotional State:

- ◆ What is their mood like?
- ◆ Is behavior consistent with mood state?
- ◆ Labile?

## ✦ Flow of Speech/Thought

- ◆ Spontaneous/appropriate/tangential?

# Cognitive Assessment

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## ✦ Insight and judgement:

- ◆ Understanding of current medical/social/financial circumstances?
- ◆ Understanding/awareness of functional abilities/challenges?
- ◆ Decision making abilities/strategies

## ✦ Perception/Interpretation

- ◆ Sensory deficits/neglect/hallucinations



# Cognitive Assessment/MMSE

✦ Assessment of specific domains:

- ✦ Memory
- ✦ Language
- ✦ Attention
- ✦ Visuospatial skills

# Cognitive Assessment/MMSE

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✦ Memory: ability to learn, retain and recall information.

- ✦ Different parts of the brain are responsible for receiving, encoding, storing and retrieving knowledge. Difficulties in any one area can cause profound problems in IADLs or ADLs.

# Cognitive Assessment/MMSE

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## ✦ Assessment of memory:

- ✦ Immediate—person recognizes and responds; ie can follow a command
- ✦ Short term—stored a few minutes to a few days
- ✦ Long term or remote memory

# Cognitive Assessment/MMSE

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## ✧ Language

- Spontaneous speech
- Understanding questions and can respond
- Repetition

## ✧ Aphasia: receptive/expressive/global

## ✧ Attention:

- Involves ability to focus and sustain mental activity
- Involves arousal and concentration

# Cognitive Assessment/MMSE

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## ✦ Visuospatial skills:

- ◆ Tests ability to perceive, plan, implement and organize

## ✦ Attention:

- ◆ Involves ability to focus and sustain mental activity
- ◆ Involves both arousal and concentration

# Cognitive Assessment/MMSE

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## ✦ What affects cognitive status?

- ✦ Medical illness including pain syndromes, infection, malignancies, etc
- ✦ Alcohol, medications (including prescriptions)
- ✦ Psychiatric illness (psychosis, depression, mania)
- ✦ Syndromes such as Down's, Parkinson's etc

# Cognitive Assessment

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## ✦ How do we test?

- ✦ MMSE: screening tool. Reliability and validity have been established, however must be administered and scored according to guidelines.
- ✦ Under 10 minutes

# Cognitive Assessment

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## ✦ How do we test?

- ✦ BCRS (Brief Cognitive Rating Scale) More sensitive and detailed.
- ✦ Takes more time, but gives more information.
- ✦ Couples nicely with the Global deterioration Scale and /or FAST.
- ✦ Clock drawing. Fast, reliable (also fascinating). Standardized time are more reliable.



# Cognitive Assessment

✦ How do we test?

✦ Frontal lobe tests:

- F words
- Animals
- Alternating sequence

# Cognitive Assessment

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## ✦ What does it matter?

- ✦ Ability to learn new information
- ✦ Ability to follow directions
- ✦ ability to retrieve old information (memory)
- ✦ Capacity consent to medical treatment
- ✦ Capacity to make personal care decisions

# Cognitive Assessment

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## ✦ What does it matter?

- ✦ Different conditions effect different parts of the brain and therefore show different deficits.
- ✦ Delirium can (and should) be transient and can effect mental status.
- ✦ Helpful for tracking people over time re: stability vs deterioration.

# Cognitive Assessment

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- ✦ Alzheimer's disease: consistent, predictable deterioration of several points per year on MMSE. BCRS usually consistent.
- ✦ Vascular dementia: patchy deficits in both MMSE and BCRS.
- ✦ Frontal Lobe dementia: can score 30/30 yet be completely unable to function independently.

# Summary

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- ✦ Screening tools are useful for baseline measurements and to give a snapshot impression of cognitive ability.
- ✦ Part of a full assessment, but not a full assessment in themselves.
- ✦ Information must be interpreted in the context of the whole person.
- ✦ Normative values.

# Summary

✦ A few tips:

- ✦ Putting the person at ease is helpful.
- ✦ If you can't get cooperation try the sly approach.
- ✦ If all else fails try to get a clock drawing.