

Telehealth Simulation
Cognitive Assessment Administering MOCA
**indicate telehealth focused content*

A. Cover Sheet/Overview of Case

Case Author(s):

Sara McCumber, DNP, APRN, CNP, CNS
The College of St. Scholastica

Date of case development:

12/19/2020

***Case purpose (e.g., brief description of the patient case and telehealth integration)**

The purpose of this case is to assist the learner to utilize telehealth for care delivery from clinic to patient home or clinic to remote clinic demonstrating the ability to complete a cognitive assessment, Montreal Cognitive Assessment (MOCA) and clinical reasoning to evaluate and diagnose a patient with cognitive impairment complaints. The case is primarily for an APRN student to administer a cognitive screening tool with a patient, but the case can also be adapted for nursing students, nurses and clinical assistants to complete.

The case will illustrate telehealth care delivery tools that can be adapted for:

- 1) Telehealth visit using Zoom or other synchronous video conferencing, including a telemedicine cart.
- 2) Telehealth visit utilizing telephone only to administer the MOCA blind version.

***Learner's prerequisite knowledge and skill:**

- Use of telehealth videoconference platform and telehealth peripherals
- Knowledge of troubleshooting telehealth equipment at an originating and distant site
- Telehealth professionalism during the visit and when counseling patient/caregiver(s)
- Identification, evaluation and management of cognitive impairment in adults.
- Knowledge of the appropriate administration of the Montreal Cognitive Assessment (MOCA).
- Knowledge of the results of the MOCA and follow-up required.

***Telehealth Technology Addressed:**

Synchronous

Asynchronous (Store and Forward)-if the drawings are completed a remote clinic site or home and are sent to originating clinic

***Telehealth Technology Included in Case: (Select all that apply)**

Computer, iPad, iPhone,

Videoconferencing platform such as Zoom for health care or doxy or

Store and Forward-optional of drawings of trail making, copying of cube and clock drawing

***Scenario requirements:**

- Standardized older adult patient (65 years or older)
- Computer and Zoom for healthcare for connection between provider and patient

- Two different setting/areas needed: Distant site for provider, clinic setting for tele-presenter and SP, or home site for SP if administered at patient home
- MOCA forms, specialized instructions and tools for administering the MOCA via Audio-Visual Conferencing available at <https://www.mocatest.org/> (faculty will need to register, log in and complete certification training to obtain necessary forms and supporting documents)
- MOCA forms need to be communicated or transmitted to the patient in advance of appointment.
- SP will need blank paper and writing utensil.
- Tele presenter which could be a medical assistant, nurse or nursing student if MOCA is performed with provider in remote setting and SP is in the clinic
- Phone if needed to reach patient.

Case Complexity Adaption:

- Beginning student: This can be used can be used with beginning students learning the role of tele presenter in telehealth care delivery. A beginning student could focus on how to initiate the visit and orient the patient who is using telehealth for the first time. Depending on the site of origination the focus could be on gathering initial history, orienting the SP to the purpose the visit, and assisting with administering portions of the MOCA test such as the trail making, copying cube and clock drawing and transmitting the results to the provider
- Intermediate/mastery student: This case can be adapted to a higher-level student using the Zoom or video conferencing connection to the SP home or clinic, providing for follow-up pharmacological management for dementia and anxiety, referral to community resources and development of a more detailed management care plan with family members.
- The scenario is adaptable to the university's resources and level of student.

B. Case Information for Learners

Case Scenario Brief

** You are the nurse practitioner provider who has an appointment with a (standardized) patient who lives in a rural area 150 miles away from you. In the town the patient is in their own home to complete the cognitive assessment via Zoom for health care connection and the patient has access to WIFI broadband. The patient understands how to access the ZOOM visit platform through their electronic health care record. In the town there is a primary care clinic with a tele presenter (medical assistant or nurse) who knows how to use the ZOOM for health care connection and there is WIFI broadband available. Patients have an option to stay in their home as the originating site of the visit or come to the primary care clinic.*

The goal today is to work with the patient administering a standardized cognitive screening MOCA, interpreting the results and developing a follow-up plan of care via telehealth. At a minimum there should be a review with the patient of a focused history, including performance on the Mini-Cognitive screening, verifying their understanding of the purpose of the visit and interpreting the MOCA results and developing a follow-plan. The choices for the visit are:

- Videoconferencing with the patient in their home
- Videoconferencing with the patient in the primary care clinic with telehealth connection and tele presenter with patient to assist in MOCA administration.

In this case things the provider can demonstrate are: clinical judgement skills; orienting the patient to the purpose of the visit; implementing best practices for telehealth; effectively administering a cognitive screening instrument (MOCA) via telehealth; review the MOCA results and recommended follow-up with the patient; and demonstrate problem solving if the patient becomes anxious with the MOCA results.

*Learner's task(s) to be completed

- Initiate videoconferencing with patient in their home.
- Initiate videoconferencing with patient at the primary care clinic with tele presenter.
- Establish the reason for visit, verify patients understanding of reason for visit
- Consent or verify consent of the patient
- Secure the environment (i.e. HIPAA/Confidentiality/Security)
- Identify participants
- Obtain HPI
- Administer the MOCA, score the MOCA and interpret the MOCA results in context of patient history and clinical setting.
- Review with the patient the MOCA results, meaning of score and develop follow up plan.
- Have patient confirm their understanding of MOCA results and response to the findings.
- No specific physical exam is completed, but note patient's level of alertness, affect, mood, ability to follow directions and comply with the MOCA, other pertinent components of the Mental Status Exam. Also note any tremors, tics, unusual movements and gait.

Patient Name: Maverick Allen

Age: 65- 77 years old

Gender: either gender

*Setting Rural area with primary care clinic, WIFI and ZOOM or other videoconferencing platform
Patient in home setting or home care setting.

History Patient failed Mini-Cog (score of 2) two weeks ago during Medicare Annual Wellness Exam.

CC: “Here to get additional memory testing.”

HPI: I’m worried I might have Alzheimer’s as I am having trouble remembering things.”

PMH: History of heart attack 7 years ago, hypertension, diabetes mellitus-non-insulin dependent, arthritis
Past surgical history; hernia repair 20 years ago.

Social HX: Retired factory worker, quit school at grade 11, married, three grown children and 6 grandchildren. For pleasure enjoys working the garden, playing cards with spouse. Lives in own home with spouse. No financial difficulties. Former smoker

FMH: parents both deceased, neither of them had memory problem. Father deceased age 72 from heart attack, mother deceased age 79 from stroke. Maternal grandmother and two aunts had senility. Two siblings who are alive, without memory problems

Medications:

Lisinopril 10 mg once daily for high blood pressure
Toprol XL 50 mg once daily for history of heart attack.
Aspirin 81 mg once daily, for history of heart attack
Amlodipine 10 mg once daily for high blood pressure
Amitriptyline 50 mg at bedtime for sleep
Metformin 1000 mg twice daily for diabetes
Tylenol 1000 mg three times daily for arthritis.

Allergies:

None

Physical Exam (If applicable)—You are not required to complete a specific physical exam. What do you observe that the patient is doing or not doing, i.e. tremors, speech rate and tone, eye contact, extremity movements, ability to walk.

Vital signs -none

Lab results none

*You will administer the MOCA to the patient, you will need to interpret the MOCA findings within the context of history the patient provides you. You will need to explain to the patient what the MOCA results mean, develop plan for additional work up and monitoring

C. Content for Standardized Patients

Case summary/presenting situation: (include age, gender, summary statement, background info related to health care issue)

- *Visit format choices
 - ZOOM or other videoconferencing platform
 - ZOOM or other videoconferencing and choice of equipment (telehealth cart/peripheral tools, Tytocare, Backpack, or travel kit) (Adapt Case accordingly)
- Opening Statement: “Here to get additional memory testing.”
- General Appearance (e.g., make up, how hair is worn):
 - Neatly groomed, hair is tidy and well kept, if a woman you can have appropriate, tasteful make up on.
- Dress (e.g., patient nightgown, socks okay):
 - Neatly dressed in casual clothing appropriate for age
- Presentation and resulting behaviors (e.g., body language, non-verbal/verbal characteristics):
 - Mildly anxious, you are worried that you have Alzheimer’s. Look worried sometimes as responding to the questions and act worried if you are not able to complete the answers correctly.
- Mood/Emotions:
 - Mildly anxious, you get more worried as the testing goes on and you miss some things. Keep focusing on that you are worried about having Alzheimer’s and that you want the student to assure you that you do not have Alzheimer’s
- Dealing with open-ended questions and guidelines for disclosure: SPs will answer naturally to open ended questions.

History of Present Illness (Please answer these questions, only if asked.)

- Onset: Two weeks ago, but when you are pressed you note that your spouse has been noting problems with your memory for the past 3 years, you are forgetting conversations at times
- Duration: 3 years
- Characteristics/quality: You have forgotten some family birthdays and special events and lost track of what you are saying in the middle of conversations and this really bothers you
- Intensity: Happening several times a day
- Alleviating factors (what makes it better): If you write things down and make lists for shopping
- Aggravating factors (what makes it feel worse): Worse with anxiety and when trying to do too many things at once
- Precipitating factors (what seems to bring it on): When you are anxious or worried it is harder to remember things and come up with words
- Treatments: Nothing but you wonder if taking Prevagen which you saw on TV would help
- Significance (impact on patient’s life): You are embarrassed as you sometimes forget the names of people you don’t see often. Your children tell you that are repeating stories sometimes when you call them
- Associated/other symptoms: Recent vision problems which you wonder if could be associated with your memory problems
- Pertinent negatives (if on SP checklist or other evaluation instrument) If asked:
 - You are able to do all your personal cares such as bathing, dressing and grooming without problems.

- You are able to take your medications independently.
- You are managing the checkbook and family finances without overdrawing the account, bouncing checks or missing any payments.
- You are able to do shopping and cooking and household chores without any problems
- You are worried as there is a history of memory problems in your mother's family, you are concerned that you have Alzheimer's and ask the provider several times during the exam if you have Alzheimer's.

Review of Systems (e.g., pertinent positives and negatives)

- No fever, no chest pain, no dyspnea, no headaches. Otherwise well.

Past Medical History:

- Illnesses/injuries: Had attack 7 years ago; Hypertension; Type 2 Diabetes; Arthritis
- Hospitalizations: For heart attack and hernia surgery
- Surgical history: Hernia repair 20 years ago
- Immunizations: Up-to-date on all vaccinations for age
- Current Medications (prescription, over the counter, supplements): Lisinopril 10 mg once daily for high blood pressure, Toprol XL 50 mg once daily for history of heart attack, Aspirin 81 mg once daily, for history of heart attack, Amlodipine 10 mg once daily for high blood pressure, Amitriptyline 50 mg at bedtime for sleep, Metformin 1000 mg twice daily for diabetes, Tylenol 1000 mg three times daily for arthritis.
- Allergies (e.g. environmental, food, medication and reaction): No known drug, food or latex allergies.
- Psychiatric: None

Family History: Family tree (e.g., health status, age, cause of death)

Parents: Both deceased, neither of them had memory problem. Father deceased age 72 from heart attack, mother deceased age 79 from stroke.

Siblings: Two siblings who are alive, without memory problems.

Other: Maternal grandmother and two aunts had senility

Social History:

- Retired factory worker
- Quit school at grade 11
- Married
- Three grown children and 6 grandchildren
- For pleasure enjoys working the garden, playing cards with spouse
- Lives in own home with spouse
- No financial difficulties
- Former smoker

MOCA Administration Responses

APRN ACTIONS/BEHAVIORS	PATIENT ACTIONS/RESPONSES (SP)
<p>APRN student should begin interaction by:</p> <ul style="list-style-type: none"> - introducing self -verifying patient has given consent for telehealth -verifying patient can see and hear provider adequately -obtain information about who else in room -obtain location and contact information for patient - and confirming purpose of the visit. <p>TRANSITION TO APRN ADMINISTERING THE MOCA SCREENING ASSESSMENT:</p> <p>The student will explain to you that he/she will be administering the MOCA screening test to better evaluate your memory and thinking. The student will tell you to get a piece of paper and pencil/pen:</p> <ol style="list-style-type: none"> 1. The student will tell you “This line is going from a number to a letter in ascending order. It begins here and goes from 1 then to A then to 2 and so on. Please tell me where the arrow should go next to repeat the pattern I’m showing you. End her at E.: 2.The student will show you the cube and say, “Copy this drawing. Please tell me when you are finished.” 3.The student will tell you to , “Draw a clock. Put in all the numbers, and set the time to 10 past 11. Please tell me when you are finished.” 	<p>SP responses ready for patient interviewing:</p> <ul style="list-style-type: none"> -affirms consent for telehealth visit -provide feedback to so that can see and hear provider adequately -no one else is present for exam -patient is at home in apartment 123 Main Street, Duluth, MN , cell phone number is 123-456-7890 -you are here to find out more about your memory, because you didn’t do well during your previous memory check during your Medicare Annual Wellness Exam. -You are worried about what your memory, as you have been having trouble remembering certain things such as what you need to pick up at the grocery store. <p>Refer to MOCA 7.1/8/1 version for specific questions.</p> <ol style="list-style-type: none"> 1. <u>Make a mistake when responding</u> if possible try to show some difficulty and don’t do it too quickly. 2. <u>Make a mistake</u> -Struggle a little bit and draw a picture like on the example 3. <u>Make a mistake—</u> -Draw a clock like the example provided, (<u>refer to picture provided to show the student</u>)

The student will tell you to fold your paper in half and set it and the pen/pencil off to the side.

4. The student will show you pictures of animals and say, "Tell me the name of this animal."

The student will ask you to look directly at the camera and to cross your hands and put your elbows on the table or arm rests.

5. The student will say, "This is a memory test. I am going to read a list of words that you will have to remember now and later. Listen carefully. When I am through, tell me as many words that you can remember. It doesn't matter in what order you say them."

6. After you have finished say the words the first time, the student will give you a second trial. The student will say, "I am going to read the same list a second time. Try to remember and tell me as many words as you can, including words you said the first time.

The student will say to you at the end, "I will ask you to recall those words again at the end of the test."

7. The student will say to you, "Now I am going to say some numbers, and when I am through, repeat them to me exactly as I said them.

8. The student will now say to you. "Now I am going to say some more numbers, but when I am through you must repeat them to me in the backward order."

9. The student will say, "I am going to read a sequence of letters. Every time I say the letter A, clap your hands once. If I say a different letter, do not clap your hands."

The student may ask you to keep your hands crossed on the table and elbows on the table in front of you.

10. The student will say, "Now I will ask you to count by subtracting 7 from 100, and then keep subtracting 7 from your answer until I tell you to stop.

Tell the student you are worried that you are not doing that well on the test so far.

**4. Correctly name each animal:
lion, rhino, and camel.**

5. For the first trial of words, say only three of them correctly and show some difficulty with remembering the words:

**6. For the second time say four words correctly:
Say that you are worried that you will not be able to remember those words later.**

7. Repeat the numbers back exactly as they are said to you, 2,1,8,5,4

8. Repeat the numbers correctly backward, 2-4-7.

9. Clap your hands each time you hear the letter A.

10. Start off by answering 93, -then hesitate and then say 84, look like you are having some difficulty and out loud do some figuring such as 14 minus 7, - then say 77, -then say 70, and

11. The student will give you the following instructions, "I am going to read you a sentence. Repeat it after me, exactly as I say it. I only know that John is the one to help today."
12. "Now I am going to read you another sentence. Repeat it back to me exactly as I say it, the cat always hid under the couch when dogs were in the room."
13. The student will say to you, "Now I want you to tell me as many words as you can think of that begin with the letter F. I will tell you to stop after one minute. Proper nouns, numbers and different forms of a verb are not permitted. Are you ready?"
14. The student will ask you to explain what each pair of words has in common, starting with the example, "I will give you two words and I would like you to tell me to category they belong to, example an orange and a banana."
15. The student will ask you "What category they belong, train and bicycle."
16. The student will ask you, "What category do they belong to, watch and ruler."
17. The student will say to you, "I read some words to you earlier, which I asked you to remember. Tell me as many of the words as you can remember."
18. Next the student says to you, "I will give you some hints to see if it helps you remember the words. The second word was a type of fabric?"

-end with 64. Make it look like you are having a difficult time.

11. **When you repeat back the sentence make several mistakes**
12. **When you repeat the sentence back to it exactly as it was told to you**
-The cat always hid under the couch when dogs were in the room.
13. **Give the following words over one minute:**
-fall, -feather, -fox, -floor, -face, -fish
-fixture, -fire, -five, -fun, -fade, -fabulous
-falling
14. **Respond that both items are part of the category of fruits.**
15. **Respond that both items are in the category of transportation.**
16. **Respond that both items are in the category of used to measure.**
17. **Respond with the following words only;**
-face, -red
18. **Respond with the word:**
-velvet

19. Next the student will say, "The third word was a type of building?"
20. Next the student will say, "Which of the words do you think it was church, library, store?"
21. Next the student will say, "The fourth word was a type of flower?"
22. The student will say, "Close your eyes, and tell me today's date, day of the week, month and year."
23. The student will ask you, "From what institution am I calling you from?"
24. The student will ask you, "What city is our institution located in?"
25. The student may ask you to hold up your copy of the piece of paper that you were drawing on up in front of your face and so they can take a picture of it.
26. The student will take a few minutes to add up your score and report your score to you.
27. The student should conclude the visit with reviewing your test results and follow up planning.

19. **Respond with the word -school (this is incorrect)**
20. **Respond with the word -church, (this is correct)**
21. **Respond with the word -daisy (this is correct).**
22. **Respond with the -current date, day of the week, month and year.**
23. **Respond with Current location or college you are working with.**
24. **Respond with City where you are located.**
25. **Hold up either the cube or the clock drawing.**
26. **Ask the student what this result means and tell the student you are worried that you have Alzheimer's. Ask the student what you need to do next.**
27. **Provide some feedback to the student in the following areas-**
 - did the student make sure that you could see and hear them
 - did the student provide adequate instructions and explanations.
 - how did the student communicate with you over the telehealth platform.
 - was there anything that the student did particularly well and are there any suggestions to help the student improve.
 - what would you recommend that the student change the next time they complete a telehealth visit or simulation.

Physical Exam Findings:

- Sitting calmly in chair, looking at computer. No excess fidgeting. Good eye contact
- Full eye movements from side to side and up and down if completed.
- No facial asymmetry.
- If you are asked to you can stick you tongue out and move it side to side without problems.
- You are able to hold your arms out in front of you with the palms facing up and then to put each index finger to your nose with your eyes closed.
- If asked to move your arms around you can do that without problems.
- You are able to move your legs up and side to side without problems/
- You have to rock several times back and forth before you can get up from the chair, if asked to get up and walk, walk leaning slightly forward, walk slowly and have good balance.
- Your breathing rate is normal, you do not have any cough or difficulty breathing.
- Your skin color is pink and you do not have any sweating.

Diagnoses should include:

Mild Cognitive Impairment

Early stage Alzheimer's, dementia

Anxiety

Adjustment disorder

Hyperthyroidism

Plan:

-Have patient complete additional evaluation which could include:

-have patient complete in person evaluation in the primary care office to complete alternative MOCA and obtain functional status from collateral contact, also complete GAD-7, and GDS or PHQ-9

-referral to neurology or neuropsychology for additional cognitive testing.

-or referral to speech therapy or occupational therapy for additional cognitive evaluation.

-Check laboratory testing including TSH, Vitamin B12, Possibly Vitamin D level

-Could consider brain imaging.

Acknowledgment

This case development was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$700,000 with 0 percentage financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

D. Post-Encounter Activities/Evaluation with focus on Telehealth*

1. Tools adapted for the evaluation of the student:

- ***Telehealth Simulation Checklist***
 - Faculty Evaluation of Student
 - Standardized Patient Evaluation of Student
 - Student Self-Evaluation
- Faculty Evaluation of Oral Report to Preceptor of Student
- Evaluation of clinical SOAP note including documentation of billing and coding data using a written note rubric
- Student Self-evaluation and Reflection for Improvement incorporating the following questions:
 - Reflect on and describe your comfort level with the learning activities in this telehealth activity and the overall telehealth simulation experience.
 - Describe how your participation during the telehealth simulation experience could potentially affect your future practice as a nurse practitioner.
 - Describe strategies you used to establish your provider relationship with the patient and family member during this telehealth experience.
 - Discuss how these strategies are similar or different to those you have used to establish your provider relationship with the patient during face-to-face clinical encounters.

2. Two-faculty debriefing in groups of students (6 students is ideal).

- One faculty member could be a simulation expert and address content addressing the actual simulation experience using best practices described in International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice: SimulationSM Debriefing (INACSL Standards Committee, 2016).
- Second faculty member with experience in pediatrics may be useful in facilitating discussion related to the atypical presentation of abdominal pain in children and considerations related to clinical management of children with telehealth.

3. Discussion questions/topics for Debrief:

- Comfort with equipment
- Comparisons, and contrasts between live and telehealth visits with regard to establishing rapport, gathering a history, performing a physical examination, diagnostic work-up, establishment a diagnosis, and probable treatment plan
- Relationship building in the virtual environment, positive and negative experiences.
- Atypical presentation of illness in a child - considerations of history taking and physical examination, inclusion of family caregiver, determining diagnosis/alternative diagnoses, considerations in clinical management, acuity of case, and referral.
- Role of simulation staff in creating separate virtual rooms to facilitate small group prebrief and debrief activities and rooms for the actual encounters.