

OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis

Case Title: Sinusitis – Telemedicine

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Time Allotted for Case: 10-13 minutes (+5 minutes of feedback)

Scenario: Patient with a cold seeking antibiotics and worried about osteoporosis.

Objectives:

- Utilize telemedicine video technology to clinically assess a patient with sinus and bone density concerns
- Avoid prescribing antibiotics for acute mild to moderate sinusitis unless symptoms worsen or are >7 days
- Don't use DEXA in women younger than 65 or men younger than 70 without risk factors

SOM Assessed Competencies: Act in a consultative role, including participation in the provision of clinical care remotely via telemedicine (ICS8)

Room set up: Students will enter a room set up utilizing video conferencing. The actor will be in a separate location. If students and faculty are remote (not on site), they will also connect to the scenario utilizing the videoconferencing software.

Props for the room:

- Computer, tablet, or smart phone with video connectivity for actor
- Strong Wi-Fi reception for all remote participants, landline connectivity for on-site
- Videoconferencing and teleconferencing capability (land line voice connectivity and monitor for video)
- Software to simulate Video conference (Zoom for example)
- Student scenario

Case setting	Family Medicine outpatient office
Patient name	Wanda or Wayne Locke
Age of actor	Able to play someone 55 years old
Gender	Per SP, anywhere on spectrum
Occupation	Part time food service

**OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis
Actor Script**

CHARACTER: Wanda/Wayne Locke, 55

DRESS: Casual, you are at home

SETTING: At your home, connecting to your doctor via telemedicine from your home device to your clinic. Note – this scenario may use Zoom for videoconferencing with the student having a document with the attachments, OR it may utilize the Epic telemedicine software. The SP will utilize the same connection either way.

Affect: You feel very congested and are sure you have a sinus infection (rhinosinusitis is the medical term). You wish to have antibiotics prescribed. This is the third time you've had a sinus infection in the past several months and you know antibiotics will help because they were prescribed the last two times at urgent care.

While you are speaking with the physician you also want to request a bone density test. You were browsing the Internet the other night and came across an article on osteoporosis and you think you might have this.

You've never met this doctor but yours is out of town.

You are concerned about both of your issues and want to make sure they both get taken care of.

You are a bit stuffy due to the congestion but it is not severe.

OPENING LINE: "I have a sinusitis again and I need more antibiotics. While I got you, I also think I need a bone test for that Osteoporosis."

CHIEF COMPLAINT: Sinus infection

Background of Chief Complaint:

Yesterday you woke up congested, again. Today you are a bit worse despite trying a cold medicine yesterday and you know you need to get back on antibiotics. You were sick with similar symptoms two times last year (last one was 3 months ago) and each time you were given an antibiotic. If the student thinks it is the same illness, clarify that the last one was 3 months ago and you were fine since then.

You were feeling fine two days ago, only a bit tired. Yesterday you were congested and today, you have pressure on your face bones just under your eyes and lots of clear runny snot coming from your nose. You set up the appointment because last time you had these symptoms you were given antibiotics and you want to catch it before it gets worse.

You do not have a car and take public transportation to go to your clinic (up to an hour one way). You work two jobs and that makes getting in to the doctor's office difficult. You will express gratitude that you are able to "be seen for a doctor's visit" using your phone. It's so much easier than the trek to the office. There is a Walgreens down the street for prescriptions.

While you are meeting with the physician, you also want to talk to the doc about a bone density test. Your friend has osteoporosis and you have been reading on the Internet and you are worried that you have this too. You read that a DEXA scan was needed and want to get that ordered. You walk a lot because you do not have a car and you work waiting tables and you recently landed a second job. If you are a cis-gender female, you are still having periods (not post-menopausal).

The student may assess your risk for osteoporosis:

- You are a smoker (about a quarter pack per day), (you are not ready to quit right now)

OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis

- No one in your family has had problems with weak bones or broken hips (osteoporosis),
- You are not on any steroid medications,
- You get plenty of exercise through walking (you walk everywhere because you do not have a car)
- Your diet has lots of calcium (you love yogurt).
- You are not overweight, nor are you considered petite: you are 5'7" and about 145 pounds.

Symptoms:

- Hearing is like you are under water
- No ear pain
- No fever
- No headache or neck pain
- No skin changes
- No cough or breathing issues
- No hand or joint pain other than your back after a long day
- No gland swelling
- No bowel or bladder issues
- No weight loss, no thirst issues, normal mood and appetite

PAST MEDICAL HISTORY:

High blood pressure treated with a medication that you can't pronounce. No sprains or broken bones other than your nose as a child when you were hit by a baseball. You are healthy and seek care to stay that way. You have had a normal cholesterol test last year, normal colon cancer poop test, and normal pap and mammogram 2 years ago. You get your flu shot yearly.

You have had your wisdom teeth pulled but no other surgeries.

MEDS: you take a blood pressure drug "hydro something". "I don't remember the dose, but I think your assistant typed in that information and put it into the computer". You do not take any supplements or vitamins or calcium or vitamin D.

ALLERGIES: None that you know of

SOCIAL HISTORY:

Lives with: alone in North Portland

Children: One child and 2 grandchildren who live in Portland

Work: Underemployed, part time in restaurants

Exercise: Walk everywhere as you do not have a car

Hobbies: Supporting high school sports

Tobacco Use: Pack a day for 40 years, now ½ pack per day

Alcohol Use: 5 beers a week

Drug Use: None

Sexual History: One partner for 3 years, prior had sex with men and women

FAMILY HISTORY:

Father: Died of heart attack in his 60s

Mother: Died of stroke 10 years ago, was 70

Siblings: None

Other: None

IMPORTANT NOTES:

- At the start of the encounter, have your face situated off the camera so the student would only be able to see a small part of your face. If the student does not say anything ask them if they can see you OK. Even if not directed eventually move the camera so that your full face is visible.
- You know what is wrong with you medically and will provide the student details of the sinus issues in one full explanation right off the bat after introductions (no fever, walking around fine, stuffy nose, etc.). Your motivation is to get the antibiotics for the sinus infection and move on to a discussion of the DEXA scan. (You provide the fuller story at the start so the student has enough time to get the story about your request for a bone density test).
- You do not need to share this, but as a back story: sometimes you feel like doctors think you are stupid. This is why you do so much research and don't merely trust what the doctors say.
- If the doctor asks you to push on your face to see if it is painful, you will tell them this does not hurt. Similarly, if the student asks you to touch parts of your neck you will not have pain there either.
- If the doctor seems dismissive of your concerns, without explaining why you do not need antibiotics push back and say in an irritated voice: "I know I'm sick and need to get better. I got two jobs to get to!"
- If the student explains your condition and explanation well, you will be fine with whatever recommendation they have for your sinus congestion.
- If the student has not gotten to your request for a bone test by midway through, steer the conversation there: "I want to make sure I don't forget to talk about the bone density test that I want."
- If the student says you need to be seen in the office for an examination, you will push back and let them know that you do not have a car so you can't get to their office before your second job starts. If the student is insistent that you need to be seen, then you will tell them you can go to the emergency department after work about 10pm.
- Even though you want the antibiotics and the bone density test, if the student does a good job in honoring your concerns and giving you a good reason why you don't need them then you will be thankful of their time and ability to explain things.
- At one point during a student's explanation, simulate dropping/moving your phone or computer to break up the flow of the conversation. This will test the student's ability to ensure that you heard their explanation.

PHYSICAL EXAM: None, amenable to pushing on your face if student asks

OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis

Telemed Room Setup:

Speakerphone found in cupboard. Sitting on rolling table, closet to computer cart.



Cart: Pull from storage room in the hallway.

Stool

Rolling Cart

OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis

UPLOAD THE FOLLOWING SHEET TO THE COMPUTER – Via WORD document OR on the Epic Train Telemedicine Software – do not have the following sheet outside of the room (the student must be able to access it in the computer)

Patient Name: W. Locke

Medication List

Hydrochlorothiazide 25mg, one tablet, once daily.

Allergies

No known drug allergies

Recent health maintenance

Fecal Occult Testing – normal 7 months prior

Cholesterol Screening - normal 7 months prior

Flu Shot – This past fall

Student Scenario

You are doing a telemedicine consult. Your clinic implemented telemedicine to better serve patients without consistent transportation as well to decrease non-urgent emergency and urgent care visits.

You will be caring for Wanda/Wayne Locke, a 55 year old who has a chief complaint of “sinusitis”. The last clinic note is for the same issue *a few months ago* (See next page). You have not worked with this patient before. This patient’s regular primary doctor is out of town in Salem working on school lunch legislation.

Your task at this station is to take a pertinent history of the patient’s concern, review medications and risk factors, and recommend management for the two issues they bring up. You do not have to do an exam, but have files available.



Note from Last Clinic visit (3 months ago)

Patient Name: W Locke

Med. Rec. No.: 432 121 1598

S: Delightful 55-year-old in with “sinusitis”. Symptoms for 2 weeks total with URI last week, better later in the week, worse over the weekend now with significant left facial pain and a fever started last night. Seen at urgent care 4 times this year as she does not have car - not able to get to clinic easily.

PMH: Hypertension

Habits: Smokes about 5-10 cigarettes/day. No recreational drugs.

Family history: One adult daughter with two kids who lives in Reno, Nevada.

Social History: part time shifts mainly in food service. Lives alone in apartment.

O: T: 102.2F, BP: 136/78, P100, R: 12

Congested, with fever.

HEENT: Significant left maxillary sinus pain. No heat redness and no facial swelling. Oral: Teeth in good repair without sign of infection. Posterior pharynx with no exudate or swelling. Neck: supple normal ROM, mild cervical Lymph swelling bilaterally. Heart RRR, Lungs Clear.

A/P

Sinus infection possibly bacterial in nature given duration and fever. Treat with Trimethoprim Sulfa DS Twice Daily x 10 Days. Return if worse.

HTN, smoking, up to date on vaccines, counseled on quitting, labs next year.

Dr. Tre Armasin

**OHSU Family Medicine Clinical Experience OSCE- Telemedicine: – Sinusitis
Observer Checklist**

Student: _____ Date: _____

Place a check in front of each task that the student accomplished correctly. Do not place a check for any tasks that were forgotten, done partially or incorrectly. If "and" is used for a task, the student must complete all tasks. If "or" is used for a task, the student must complete or address at least one of the tasks. Students will have 2 minutes to "wrap-up" the interaction, discuss follow-up, and/or provide closure without prompting.

Interpersonal and Communication Skills, Includes the Four Habits. *The student:*

- _____ 1. Builds the relationship (not rushed, introduction, eye contact, attention, empathy, asks how to address)
- _____ 2. Establishes the agenda (elicits concerns, agrees upon agenda)
- _____ 3. Facilitates understanding (speaks clearly, avoids medical jargon, high priority information)
- _____ 4. Summarize and confirm understanding (summarizes plan, elicits questions, uses teach back)
- _____ 5. Showed listening body language (leaning forward, looking at patient)
- _____ 6. Used empathetic techniques (repeat feelings, legitimize concerns)
- _____ 7. Appropriately admitted uncertainty, and, if applicable, offered to get more information for patient
- _____ 8. Voices understanding of patient's context (cost, transportation)

Medical knowledge. *The student:*

- _____ 9. Asks osteoporosis risk factors: Asks if patient takes any other medications other than blood pressure or specifically if they take a steroid medication
- _____ 10. Asks osteoporosis risk factors: Asks patient if they have had a broken bone in the past
- _____ 11. Asks osteoporosis risk factors: Asks if they have a family history of a hip fracture
- _____ 12. Asks osteoporosis risk factors: Asks if they have rheumatoid arthritis
- _____ 13. Asks osteoporosis risk factors: Asks if patient smokes AND offers to assist with cessation
- _____ 14. Advises the patient regarding methods to prevent osteoporosis using Calcium/Vitamin D/exercise
- _____ 15. Avoids prescribing antibiotics for the patient's viral symptoms
- _____ 16. Provides a clear accurate explanation of why antibiotics are not recommended
- _____ 17. Avoids agreeing to order a bone density DEXA scan for a person at low risk for fracture
- _____ 18. Provides a clear accurate explanation of why a bone density test is not recommended.

Use of Technology: *The student*

- _____ 19. Asked the patient if he could see and hear with the technology (before asked by the patient).
- _____ 20. Makes any necessary adjustments for technologic issues (coaches patient to move camera).
- _____ 21. Accessed medical history
- _____ 22. Verbalized what he/she was doing when not focused on the patient (e.g., while looking at meds).
- _____ 23. Remained patient-centered despite distractions (Keeps the focus of the visit on the patient rather than the technology)

Comments for the student:



Follow-up: Would any further learning activities be helpful to this student? Yes/No

Specific skills to address:

Evaluator Name: _____

EDUCATIONAL NOTES:

Choosing wisely has gathered recommendations on common medical problems from all the different specialists.

Sinus Infections

There are sinuses behind the cheek bones and smaller ones above the eyes and next to the nose. Sinuses are pockets in the bone usually filled with air. The sinuses are lined with skin and when the skin of the sinuses can get swollen and trap secretions in the sinuses Pain and pressure in the sinus areas is most often caused by a virus. The virus causes an increased amount of nasal discharge which can collect in the sinus pockets causing a sensation of significant pressure or pain. Antibiotics are used to kill bacteria not viruses, so antibiotics do not help with most sinus infections.

Occasionally sinus infections are or become infected with bacteria. Then there is a high fever, severe facial/cheek pain (many patients describe as though it feels like an ice pick through the face – not just pressure) or upper tooth pain (the roots of the teeth are seated just at the bottom of the sinus cavity). Antibiotics are considered to be appropriate treatment if decongestant medications over the counter are not working and there is signs a bacterial infection (greater than 10 days of symptoms especially if there was improvement then severe worsening, fever, severe face pain and or tooth pain).

Using antibiotics too much when there is a viral infection can cause bacteria to become “resistant”. The bacteria can evolve so that future strains of the bacteria are not killed by the antibiotic.

Osteoporosis

Osteoporosis is a condition that weakens the bones through loss of the structure of the bone. It can lead to breaks in bones of the hips and back and elsewhere with very little force apparent cause. Usually severe bone loss occurs in elders and we routinely test for osteoporosis in women over 65 and men over 70.

It is considered to be unnecessary to do bone density tests for those who are younger unless a person is at risk for early osteoporosis. While smoking contributes to bone loss, it alone, is not a good reason to do a bone density testing. There is a fracture risk calculator that can be used to determine which patients need early bone density testing. Certain medicines (such as steroids used in severe arthritis) can cause bone density issues. Other risks for early bone loss include a lack of weight bearing exercise (a person who uses a wheel chair), a family history of early hip fractures, and a lack of calcium or ability to absorb calcium. Osteoporosis is diagnosed using a Dual-energy X-ray Absorptiometry test (DEXA or DXA).