Date: August 4, 2021

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Standardized Patient Educator: Lee Kiszonas

Name of Case: Chest Pain Case

Name of educational and or assessment activity: Telemedicine Chest Pain Case

Patient Name: Elaine/Ethan Butterfield

Chief Complaint: chest pain

Most likely Diagnosis and Differential with rationale from history and/or physical exam:

Most Likely Diagnosis: Acute MI

Differential:

Acute MI

Unstable Angina

GERD

Challenge question: Important – approximately 5 minutes into the interview, the patient will have an occurrence of the chest pain. The SP should be in clear discomfort, bending forward with their left hand clenched over their chest, with obvious shortness of breath. This affect remains consistent throughout the rest of the interview.

Domains: Check all that apply

Professionalism

Communication and Interpersonal skills

Medical History

Physical exam

Shared Decision Making

Patient Education

Clinical Reasoning

Documentation

Handoff

Presentation

Other:

Type and level of learner: Third-year medical student

Case Objectives: please list specific objectives for each of the domains you have checked above:

1. Understand the limitations of the telemedicine examination
2. Recognize a potentially unstable patient and triage appropriately
3. Discuss potential circumstances that care may need escalated
4. Describe management options for patients that are potentially unstable

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| SETTING: | Outpatient |
| PATIENT PROFILE: | |
| Age range | 45+ yo |
| Religious/spiritual background | Non-religious |
| Sex (e.g., male, female, intersex, transwoman, transman) | Female |
| Sexual Orientation (e.g., heterosexual, lesbian, gay, bisexual, pansexual, queer, asexual) | Straight |
| Gender expression (e.g., man, woman, gender queer) | Woman |
| Race/ethnicity: | Any |
| Physical description (e.g., BMI, height range) | Overweight |
| Physical limitations | None |
| Patient appearance (e.g., disheveled, hospital gown, business casual, casual) | Casual |
| Moulage + location (e.g., none, bruises, scars, body piercing, tattoos) | None |
| Affect (e.g., pleasant, cooperative) | Slightly anxious. Speech should not be affected by respiratory rate until episode. |
| Family group (e.g., who is family, who they live with) | Lives with husband; feels safe at home |
| Education | Completed college |
| Level of health literacy | Average |
| Employment, if any - present and past, noting any current stresses | Interior designer |
| Home/homeless - type of dwelling, number of stories, owned or rented | Lives in a house with husband |
| Financial situation- any current stresses | None |
| Insurance Status (e.g., un/under/insured, public/private, HMO/PPO) | HMO/PPO |
| Habits (i.e., diet, exercise, caffeine, smoking, alcohol, drugs) | Drug Use (past and present. Recreational and medications prescribed to other people): Marijuana in their 20s  Tobacco Use (past and present. response to suggestions to quit): 1 ppd tobacco use since age 16  Alcohol Use (past and present. response to suggestions to quit): Drinks 3-4 beers on the weekends  Diet: Mostly convenience foods; high in fats and low in fruits and vegetables “My doctor told me to eat better and exercise, but it’s hard to find the time.”  Exercise: “I’m on my feet all day at work and by the time the day is done I’m in no mood to cook.” |
| Activities (i.e., hobbies, sports, clubs, friends) | Watching television |
| Typical day - what is the usual daily routine | Works during the day, spends evenings and weekends with husband at home |

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| CASE INFORMATION | |
| Chief Concern: What the patient will say when greeted by the student. The patient’s primary reason for seeking medical care often stated in his/own words. | Chest pain  “I’ve been starting to worry about these chest pains I’ve been having” |
| Additional Concerns: Other, if any, concerns the patient has today (i.e., symptoms, requests, expectations, etc.) that will become part of set agenda. | Impact on patient’s life: Limiting activity  What do you think this is?: “Something with my heart, probably .”  Concerns/fears: Worried it’s a heart attack  Spouse encouraged them to make this appointment  Expectations for the visit: Reassurance |
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| THE PATIENT STORY: The SP will be asked to tell their symptom story and the personal and emotion impact for each of their concerns. You will want to write this is the patient voice. The symptom story should be able to answer this question: “Tell me more about [chief concern/additional concern], starting at the beginning and bringing me up to now.”    The personal context should be able to answer questions concerning the broader personal/psychosocial context of symptoms, especially the patient beliefs/attributions.    The emotional context should be able to ask how are you doing with this, how does this make you feel, how has this affected you emotionally? IMPACT: How has this affected your life? How has this been for your family? | “I’ve been having this chest pain for weeks, but it seems to be happening more frequently”  “For the past couple of weeks, I’ve had this squeezing feeling on the left side of my chest. At first, I just noticed it after I climbed stairs, but now I even feel it sometimes just when I’ve been watching television.”  Started 2 weeks ago; chest pressure with exertion (“I ran up to the third floor to get my phone and had to sit on the bed for a few minutes and rest.”) Happened once or twice per day at first (“Like when I was carrying a big vase of flowers up a flight of stairs or when I was rushing out of Starbucks late for an appointment”); about three days ago started happening with minimal exertion (“All I did was shift a couch a few feet.”); now occurring 4-5 times per day even when at rest. (I was just doing some case file clean up on my computer and it happened.” |
| HISTORY OF PRESENT ILLNESS: Although some of the HPI will be given in the patient’s symptom story, the learners will expand the story during the direct question section. Below describe the detailed history, usually about the chief concern, which the student must develop in order to make a useful assessment of the problem: | |
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| Onset (when; gradual or sudden) | 2 weeks ago |
| Setting (what was going on or where was patient when symptoms first noticed?) | Started 2 weeks ago; chest pressure with exertion (“I ran up to the third floor to get my phone and had to sit on the bed for a few minutes and rest.”) Happened once or twice per day at first (“Like when I was carrying a big vase of flowers up a flight of stairs or when I was rushing out of Starbucks late for an appointment”); about three days ago started happening with minimal exertion (“All I did was shift a couch a few feet.”); now occurring 4-5 times per day even when at rest. (I was just doing some case file clean up on my computer and it happened.” |
| Duration (how long) | A few minutes each time |
| Time relationships (frequency, constant or intermittent) | At first, was once or twice per day.  About three days ago, happening with minimal exertion  Now, more frequently, 4-5 times per day |
| Location | Left side of the chest |
| Radiation | Yes, to both shoulders and up my neck. Radiation to both has been present since the onset. |
| Quality | Squeezing chest pressure |
| Amount | Severity 6-7/10 at the worst |
| Aggravated by what | Exertion caused it, but now it comes on even at rest |
| Relieved by what | Tums haven’t helped, nothing makes it better |
| Associated with what | Shortness of breath, diaphoresis (sweating) |
| Attitude (what does the patient think is the problem, and how does he/she feel about it) | What do you think this is?: “Something with my heart, probably .”  Concerns/fears: Worried it’s a heart attack |
| Overall course | Worsening, becoming more frequent |
| REVIEW OF SYSTEMS: Significant positives and negatives | |
| Positive for chest pain (not pleuritic), shortness of breath, diaphoresis (sweating)  Also positive for aching, cramp-like pain in her legs/feet that occurs with ambulation and that is relieved by rest. If male SP used, also has erectile dysfunction. | All other ROS negative |
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| Past medical history |  |
| Medication allergies (Name and reaction) | None |
| Environmental allergies (Name and reaction) | None |
| Illnesses | Elevated blood pressure and cholesterol diagnosed 4 years ago.  Prediabetes 2 years ago. Never told he/she needed medication for it. Told to watch diet and exercise more.  Last seen one year ago and told she was doing alright. |
| Vaccinations | Up-to-date |
| Surgeries | Appendectomy at age 16 |
| Accidents/ injuries/ trauma | None |
| Hospitalization | Appendicitis at age 16 |
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| Inclusive sexual and reproductive history | |
| Sexual practices  Sexual partners  Protection: Use of safer sex practices  Use of birth control if appropriate  Risk of intimate partner violence | Sexually active with husband only  Lifetime sexual partners: 3  Safety in relationship: No concerns |
| Ob/GYN HISTORY | G0 |
| Medications | takes HCTZ 25 mg, atorvastatin 40 mg  the patient is not consistently adherent, and will state she “just forgets” sometimes. “I run out of the house late some mornings and I know not to double up.” |
| Immunizations | Tetanus  Flu  Hepatitis  Pneumovax  HPV |
| Tobacco products:  Cigarettes  Cigar  Pipe  Chew  E-cigarettes | Never  Past- year started/year quit  Current  o   Quantity: 1 PPD  o   # of years: since age 16 |
| Alcohol  Beer  Wine  Liquor  Other | Never  Past- year started/year quit  Current  o   Quantity: Drinks 3-4 beers on the weekends  o   # of years: since age 20s |
| Drugs  Weed  Cocaine  Heroin  Meth  Other  IV  Inhalants  Other | Never  Past- year started/year quit:   * Marijuana in their 20s   Current  # of years: since age 20s |
| Diet (describe) | Mostly convenience foods; high in fats and low in fruits and vegetables “My doctor told me to eat better and exercise, but it’s hard to find the time.” |
| Exercise (describe) | “I’m on my feet all day at work and by the time the day is done I’m in no mood to cook.” “My doctor told me to eat better and exercise, but it’s hard to find the time.” |
| List any other important social history or information important to this case |  |
| Family history |  |
| Mother, Father, Siblings, Grandparents, and other significant findings. | Father died of MI at 56, mother passed away from lung cancer at 76; brother with MI at 45, and is not doing well. |
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| Physical Exam- List exam maneuvers expected for this case and any abnormal findings that SP will simulate. (tenderness, hyper-hypo reflex, rebound, weakness etc.)  General: Approximately 10 minutes into interview, patient will have an occurrence of chest pain. During “attack”, the SP should be in clear discomfort, bending forward with their left hand clenched over their chest, with obvious shortness of breath, which makes them unable to speak in complete sentences.  Other exam not expected to be obtained. If performed, everything is normal except mild respiratory distresss | |
| PHYSICAL EXAM FINDINGS |  |
| 1)          Written in layman’s terms | Approximately 10 minutes into interview, patient will have an occurrence of chest pain. During “attack”, the SP should be in clear discomfort, bending forward with their left hand clenched over their chest, with obvious shortness of breath, which makes them unable to speak in complete sentences. |
| 2)          General appearance- affect, appearance, position of patient at opening (i.e. sitting, laying down, holding abdomen etc.) | Sitting  During “attack”, the SP should be in clear discomfort, bending forward with their left hand clenched over their chest, with obvious shortness of breath, which makes them unable to speak in complete sentences. |
| 3)          Vital signs | Not expected to obtain |
| 4)          Specific findings and affect | Worried, but looking for reassurance  During “attack”, the SP should be in clear discomfort, bending forward with their left hand clenched over their chest, with obvious shortness of breath, which makes them unable to speak in complete sentences. |
| 5)          Response to certain physical movements | Chest pain occurs with minimal exertion  During attack, afraid to exert self due to chest pain and SOB |
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| DIAGNOSIS AND DIFFERENTIAL |  |
| Diagnosis with support from positive and negative history and PE findings | Acute MI – adult patient with multiple cardiovascular risk factors and strong family history of MI presenting with typical chest pain, currently having an acute episode |
|  | Unstable angina - adult patient with multiple cardiovascular risk factors and strong family history of MI presenting with typical chest pain, that now occurs with rest |
|  | GERD – chest pain may be radiating from epigastric region |
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| MANAGEMENT OR DIAGNOSTIC PLAN | Since unable to evaluate patient with labs (troponin) and EKG in a telemedicine visit, should recommend patient be evaluated in ER. Different ways to coordinate this – can advised patient to call EMS, student can call EMS to go to where patient is, if husband is home, he can drive patient to hospital |
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| PROFESSIONALISM ISSUES OR CHALLENGES: | Concern for MI and need for escalation of care  Telemedicine skills:   * Confirm patient identifiers and obtain location information * Appropriately set up telemedicine encounter and confirm that patient’s technology is working * Confirm SP’s videocall functionality   Medical History, Physical Exam:   * Obtain targeted history and limited physical exam (mostly visual inspection)   Clinical Reasoning:   * Recognize that history and physical exam are concerning for cardiac chest pain, likely MI * Recognize need to escalate care, have patient be evaluated in ER/hospital   Communication and Interpersonal Skills:   * Clearly communicate to patient regarding concerns about the chest pain being cardiac in nature, and possibly and like a MI * Ensure patient understands and agrees with recommended management plans and next steps   Problem-Solving, Systems-Based Practice:   * Student needs to help coordinate escalation of care for patient |