An Example of a History, Physical Examination, Presentation and Problem Solving Practical Examination Station

(Department of Internal Medicine, The University of Texas Medical Branch)

This packet contains an example of a History, Physical Examination, Presentation and Problem Solving (HPPP) practical examination station couplet used in the Internal Medicine Inpatient Clerkship at The University of Texas Medical Branch. The station format is described in more detail in (Rosebraugh CJ, Speer AJ, Ainsworth MA, Solomon DJ, Callaway MR. Developing a presentation and problem-solving station in a multistation standardized-patient examination. Acad. Med. 1996;71(1):S102-4). The format consists of two eight minute stations. The student is required to perform a focused history and physician examination on a standardized patient during the first eight minute station. The students are evaluated by the patient on their history taking, physical examination and patient interaction skills using a checklist. Students are required in the second stations to present the patient to a faculty member who then assesses their presentation and problem-solving skills using a structured interview format. The student is evaluated by the faculty member based on a detailed set of standards using a rating form.

A number of stations using this format have been developed. In this particular example, the patient presents in a physician’s office complaining of recurrent chest pain. The diagnosis is unstable angina. Faculty members in the Department of Internal Medicine are currently conducting research on the reliability of the faculty ratings and validity of the format. The packet contains:

- Patient script
- Patient checklist
- Faculty rating form
- Door signs, instructing the students what to do in each station
- Faculty rating standards

The following faculty members were instrumental in the development of the HPPP format:

Michael A. Ainsworth, M.D., Mark D. Holden, M.D., Steven A. Lieberman, M.D., Curtis J. Rosebraugh, M.D., Alice J. Speer, M.D. Karen E. M. Szauter, M.D.,

For further information, contact:

Curtis J. Rosebraugh, M.D.
4.140 McCullough Bldg. (0772)
The University of Texas Medical Branch
Galveston, TX 77573-0772
CASE 113A
Chest pain - Mr Jones

Stem for student: This patient presents to you complaining of discomfort in the chest. Proceed with your FOCUSED HISTORY for this problem.

Chief Complaint: "I have been having chest pain lately."

STOP

Can you tell me more about it? or similar open question?

About six months ago I started having this pain (a squeezing, pressure sensation) in my chest. It was right under the breastbone (patient hold right fist to breastbone), and only lasted a few minutes. It happened two or three times when I was angry with my son, and then it went away.

STOP

"Has the pain happened at other times?" or "Have you noticed anything different recently?" or similar open question.

For the last month the pain has been more frequent. We went to Austin and I had one pain in the mall. We had a flat tire on the way back and I had the pain then (while changing the tire).

STOP

"Is there anything else you can tell me?" or "Have you had any other symptoms?" or similar open question.

For the last few nights the pain has awakened me, and it seems to be worse. I can feel it in my left arm. I got up and took some Rolaids, but they did not seem to help. Last night I broke out in a sweat and the pain lasted about 30 minutes.

STOP

If asked another vague open question, like "Is there anything else you can tell me about it?" respond with something reflective like:

"I don't know what you want" or "What do you want me to tell you?"
Responses to Specific Questions:

Has anyone in your family had heart trouble?

    My father had a heart attack and died when he was 40.

Do you smoke?

    Yes. One to two packs a day since I was in my 20's. I think maybe I have been smoking too much so I am going to cut back.

How many pillows do you sleep on?

    I sleep on one pillow.

Have you noticed any changes in bowel habits? or black stools? or blood in your stools?

    No.

Have you ever noticed the pain after a meal?

    No. A meal doesn't bring on the attack.

How far can you walk or how many flights of stairs can you climb before you have the pain?

    I can walk about 2 city blocks before the pain occurs. I haven't walked up any flights of stairs since this problem began.

Respond NO to the following:

    nausea
    vomiting
    difficulty swallowing
    cough
    shortness of breath
    weight loss
    noticed heart racing (palpitations)
    fever
    past history of hypertension
    past history of high cholesterol
    swelling of ankles or feet
    awakening with a mouth full of bitter tasting fluid (regurgitation)
Facilitation of Patient Encounter
1. Introduced self--------------------------------------->
2. Began interview with at least one open-ended question->
3. Speech and language easily understood------------------>
4. Avoided complex or leading questions------------------> 
5. Concern for patient comfort----------------------------->

Data Collection-Interview
6. Asked what the pain is like (character)--------------->
7. Asked how often the pain occurs------------------------->
8. Asked how long the pain lasts-------------------------->
9. Asked what brings the pain on/makes worse------------->
10. Asked what makes the pain better/makes it go away----->
11. Asked if the pain moves/radiates---------------------->
12. Asked if there were any other symptoms with the pain-->

Asking about the following cardiac risk factors
13. Smoking---------------------------------------------->
14. Diabetes Mellitus------------------------------------->
15. Hypertension------------------------------------------>
16. Family history---------------------------------------->
17. Menopause-------------------------------------------->

Data Collection-Examination
Inspection
18. Looked at the precordium before examining ----------->

Palpation
19. Felt for the heart’s PMI------------------------------->

Auscultation
20. Listened at all four points of the precordium -------->
Presentation of Interview and Examination
1. Began with chief complaint and patient identifiers---->
2. Speech easily understood with proper terminology------>
3. Followed logical/organized sequence---------------------
4. Information focused to appropriate organ system(s)---->
5. Included pertinent positive/negative data------------->
6. Data provided was accurate to case--------------------

Differential Diagnosis and Problem-Solving
7. Chose major problem for differential diagnosis-------->
8. Able to distinguish stable from unstable presentation->
9. Able to select initial work-up------------------------>
10. Able to select basic therapy------------------------
11. Able to identify cardiac risk factors----------------->

Summative Impression of Presentation and Comprehension
Proficient ="A"; Competent ="B"; Not competent ="C"------->
Station 1
BLUE

This patient presents with chest pain.

You have eight minutes in this room to complete

A focused interview for chest pain; and

An examination of the patient's precordium

This patient's BP is 124/82; pulse 90 beats/minute
Station 2
BLUE

In this station you will continue your activity from the preceding station.

First 4 minutes

Proceed with an oral presentation of your interview and exam from the preceding station

Second 4 minutes

Faculty will ask you questions about the case
## Chest pain (unstable angina)-Scoring Criteria

<table>
<thead>
<tr>
<th>Item</th>
<th>“A” criteria</th>
<th>“B” criteria</th>
<th>“C” criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Began with chief complain and patient identifiers</strong></td>
<td>includes name, age, gender, and chief complaint</td>
<td>Includes chief complaint and 2 of the 3 other identifiers.</td>
<td>Anything less than “b”</td>
</tr>
<tr>
<td><strong>2. Speech easily understood with proper terminology</strong></td>
<td>Always understood, always uses proper terminology</td>
<td>Occasional slang or lay language</td>
<td>Frequent slang or lay language, or frequently difficult to understand</td>
</tr>
<tr>
<td><strong>3. Followed logical/organized sequence</strong></td>
<td>Proceeds logically through presentation, clustering elements of HPI, cardiovascular ROS, physical exam.</td>
<td>Skips out of order once or twice</td>
<td>Skips out of order more than twice</td>
</tr>
<tr>
<td><strong>4. Information focused to appropriate organ system(s)</strong></td>
<td>Addresses the cardiovascular system and the GI system</td>
<td>Addresses only the cardiovascular system</td>
<td>Focuses on neither the cardiovascular or GI system</td>
</tr>
<tr>
<td><strong>5. Included pertinent positive and negative data</strong></td>
<td><strong>POSITIVE DATA:</strong> 1) Substernal Chest Pain; 2) occurs with exercise/emotion; 3) occurs at rest/nocturnal; 4) associated with diaphoresis, left arm pain; 5) describes positive risk factors. <strong>NEGATIVE DATA:</strong> 1) not associated with nausea or vomiting; 2) not relieved with antiacids or meals</td>
<td>All <strong>POSITIVE DATA</strong> Only one Group of <strong>NEGATIVE DATA</strong></td>
<td>Incomplete <strong>POSITIVE DATA</strong> No <strong>NEGATIVE DATA</strong></td>
</tr>
<tr>
<td><strong>6. Data provided was accurate to case</strong></td>
<td>All information is provided and is accurate</td>
<td>misses one item or mentions it wrong</td>
<td>misses two items</td>
</tr>
<tr>
<td><strong>7. Chose major problem for differential diagnosis</strong></td>
<td><strong>PROMPT QUESTION:</strong> 1) What is your primary diagnosis; 2) If student answers with CAD, ask them to be more specific i.e. stable vrs. unstable</td>
<td>Unstable angina; r/o MI acceptable</td>
<td>Prompt to unstable angina</td>
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</tbody>
</table>
### 8. Able to distinguish stable from unstable angina presentation

**PROMPT:** 1) can ask twice “anything else?”

<table>
<thead>
<tr>
<th>Need 3 out of 3</th>
<th>Everything but one</th>
<th>Misses two</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Increase frequency, severity and duration of pain; 2) Nocturnal/rest; 3) Pain lasting longer (30 minutes)</td>
<td></td>
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### 9. Able to Identify initial work-up

**PROMPT QUESTIONS:** 1) what is your initial work-up? 2) Should this patient be assessed as an inpatient or outpatient; 3) EKG is not helpful, what further testing would you do.

<table>
<thead>
<tr>
<th>1) Hospitalize; 2) catheterization or stress test; 3) Rule out MI also acceptable</th>
<th>no middle answer acceptable</th>
<th>wrong diagnosis or treatment</th>
</tr>
</thead>
</table>

### 10. Able to identify basic therapy

**PROMPT:** The patient stabilizes and evaluation reveals CAD amenable to medical management:

1) What medical therapy do you recommend? 2) What non-pharmacological therapy do you recommend?

<table>
<thead>
<tr>
<th>Need 4 out of 4</th>
<th>need 3 of 4</th>
<th>2 of 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Aspirin; 2) Anti-anginals; 3) evaluate lipid profile; 4) risk modification (smoking)</td>
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### 11. Able to identify cardiac risk factors

**PROMPT QUESTION:** Is there a difference for female patients

<table>
<thead>
<tr>
<th>Need 6 out of 7</th>
<th>Need 5 out of 7</th>
<th>4 or less</th>
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<tr>
<td>1) family history of premature death (M&lt;55 or F&lt;65); 2) smoking; 3) Cholesterol; 4) diabetes; 5) HTN; 6) Post-menopausal; 7) Age (M&gt;45, F&gt;55)</td>
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