

Oral Presentations in Emergency Medicine

This guide is designed to help medical students establish and refine their presentation skills, with a focus on the emergency medicine presentation. Please note that there are two key elements to giving presentations: good feedback and flexibility of presenting style. You should make sure to use this guide in concert with feedback you get from your attending and should realize each attending will be slightly different. With the ability to modify your presentation based on feedback, we are certain you will develop the skills needed to communicate the critical information of a medical presentation both concisely and completely.

Objectives of the EM Oral Presentation

1. Tell the patient's story < 3 min in order to start diagnostic tests and treatment quickly.
2. Only state pertinent information.
3. Presentation must be fluid, flowing from one section to another with no hesitation and done with confidence.

The Oral Presentation Outline






1. Chief Complaint (CC)
2. History of Presenting Illness (HPI)
 - a. One liner
 - b. 
 - c. 
 - d. 
 - e. 
 - f. 
 - g. **PERTINENT** Past Medical History (PMH)/ Past Surgical History (PSH)/ Social History (SocHx)/ Family History (FmHx)
3. Review of Systems (ROS)
4. All medications
5. All allergies
6. Physical Exam (PE)
7. Summary Statement
8. Problem Assessment
9. Plan

Figure A

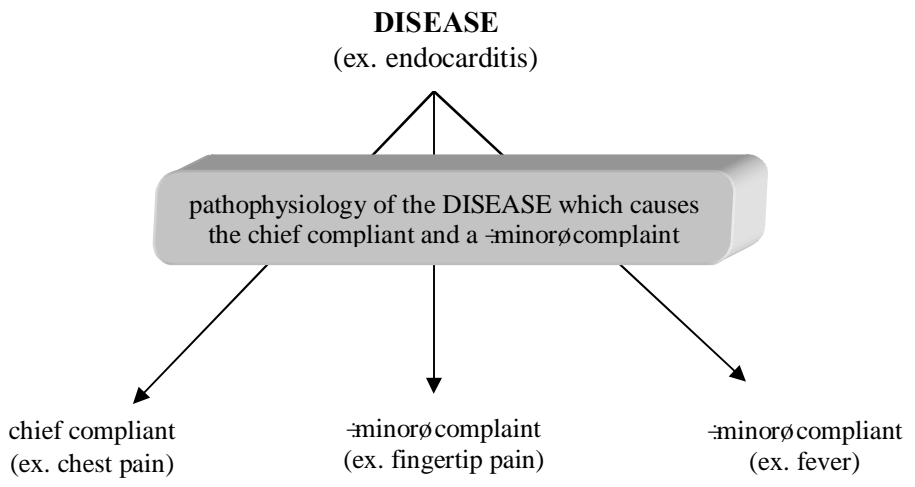


Figure B

Chronological Order of the Chief Complaint

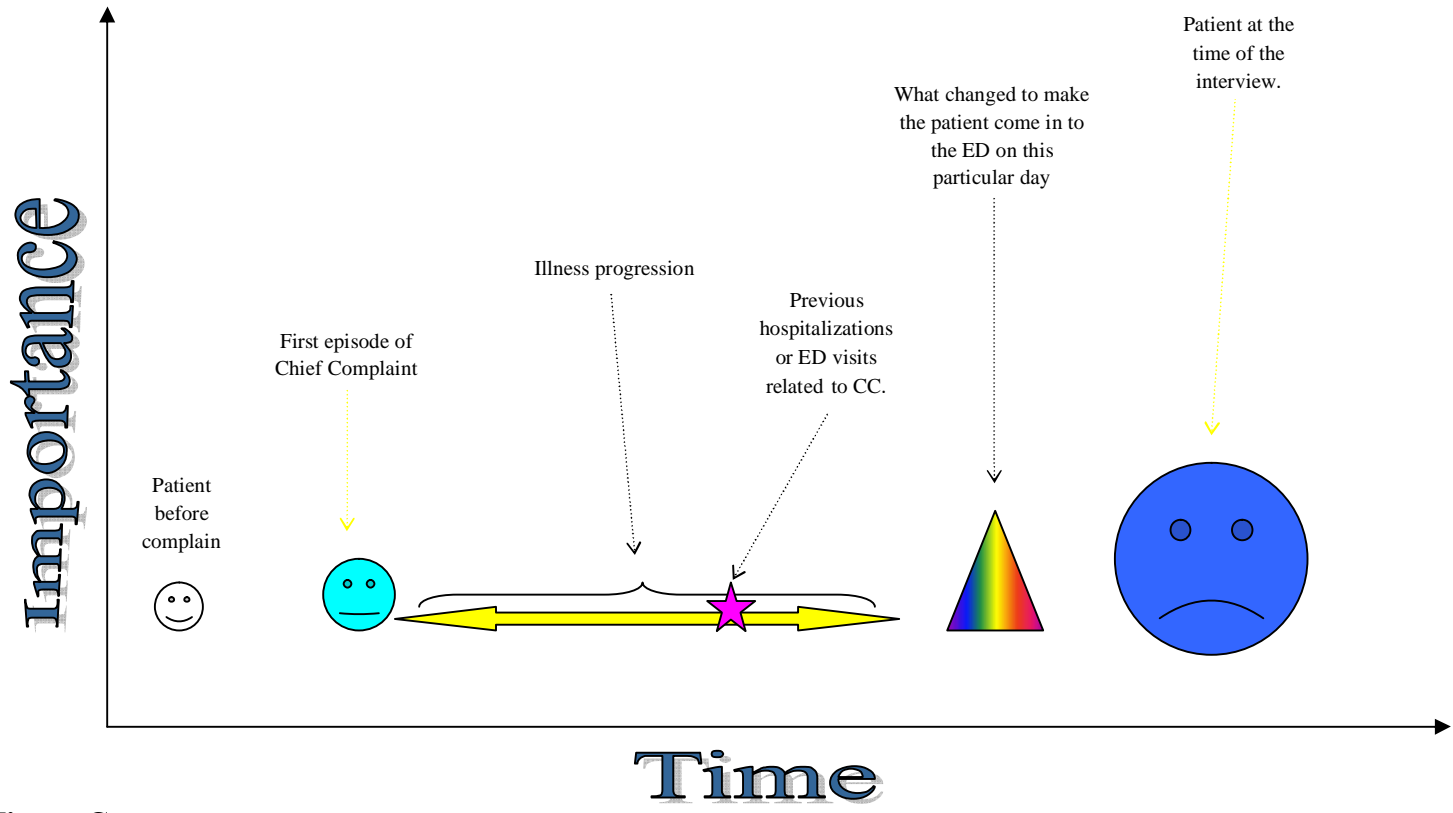
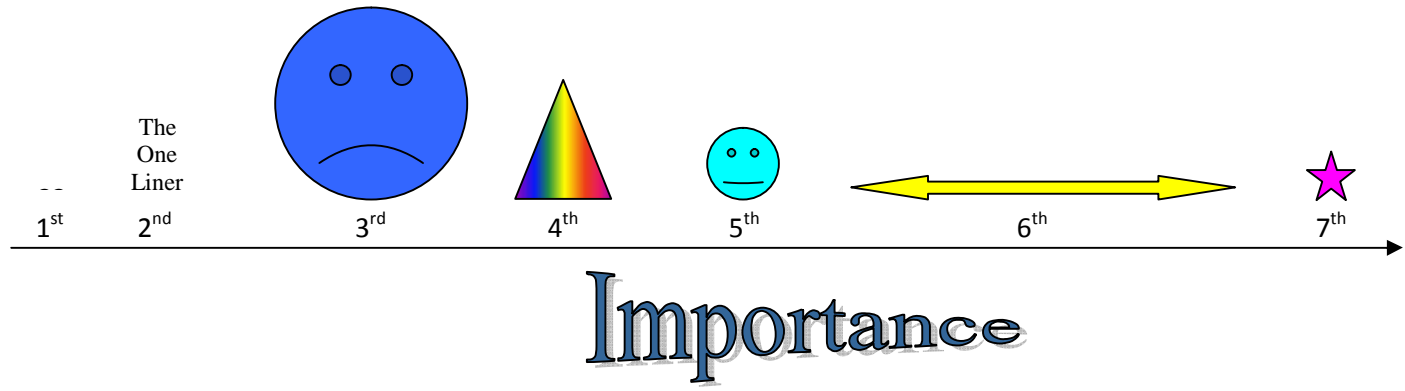


Figure C

Order of HPI in the Oral Presentation



Intro

The overall feel for oral presentations in the emergency department is to give concise sentences in a bullet-point like fashion—taking this mentality will hopefully rid you of extra words and phrases. Most importantly is using a format that makes sense, which will increase fluidity and confidence of oral presentations.

What does ‘pertinent’ really mean?

Before discussing the individual sections of the oral presentation, the vague term of ‘pertinent’ must be clearly defined. Often students are interrupted during their oral presentation by the listener who says ‘only give me the pertinent information’ or ‘tell me what I need to know to treat this patient’. These interruptions are likely due to the listener’s frustration with the medical student’s regurgitation of too many facts. Therefore, it is critical for medical students to become more proficient dividing all the facts into 2 categories: pertinent and non-pertinent information. The skill of labeling information as pertinent or non-pertinent requires a significant level of clinical knowledge; therefore, students will naturally have limited abilities. When students receive non helpful phrases such as ‘only give me info that is related to the chief complaint’, you should respectively ask the educator for specific explanations as to why a given piece of data is or is not ‘pertinent’.

Of note, students should generally not duplicate presentations of senior residents or attending, because these instructors have mastered the oral presentation and might not use the same format as required by medical students.

Table 1. Illustrates one way how ‘pertinent’ patient information is determined.

| Complaint | Possible etiologies of complaint | Pertinent questions | Example phrases to be stated in the HPI* |
|------------|----------------------------------|--|--|
| Chest Pain | Acute Coronary Syndrome | Have you ever had this type of chest pain before? | <i>Patient had similar chest pain a year ago.</i> |
| | | Does the chest pain increase with walk? | <i>Chest pain increases with ambulation but decreases with rest</i> |
| | | Is the chest pain sharp, dull, or burning in nature? | <i>Chest pain is dull and substernal with radiation down left arm.</i> |
| | Pulmonary Embolism | Do you feel short of breath? | <i>Patient does not have shortness of breath</i> |
| | | Does the chest pain change when you breathe? | <i>Chest pain is non-pleuritic</i> |
| | | Have you ever had blood clots before? | <i>Patient has never had a deep venous thrombosis.</i> |

***The responses to the pertinent question column are pertinent by association and thus should be stated in the HPI section, not the ROS section, of the oral presentation**

Another way to determine pertinent information is as follows (depicted in Figure A): if you believe a symptom/complaint could be caused/explained by the same pathophysiology that could be causing the CC, then by definition that information is pertinent. Let's say the patient has chest pain for a chief complaint. During the review of system questioning, the patient also complains of fingertip pain. Is the fingertip pain important enough to mention in the presentation? If you believe the fingertip pain is related to the chief complaint (therefore pertinent information) then it is stated in the HPI. On the other hand, if you believe the fingertip pain is NOT related to the chief complaint (therefore non pertinent information) then it is mentioned in the ROS. Since you have limited clinical knowledge (for now), **all** complaints should be mentioned because experienced clinicians might be able to connect the pieces together that students can not do yet.

Let's say the previously mentioned finger pain resulted during a basketball game. Since the mechanism causing the fingertip pain (trauma during a basketball game) could not also cause the patient's chest pain the fingertip pain is NOT pertinent to the chief complaint. Therefore, fingertip pain should be mentioned in the ROS. However, if the medical student believes there is a way the finger trauma could cause the chief complaint of chest pain, then the fingertip pain is pertinent information and should be mentioned in the HPI. Of note, any information mentioned in the HPI should NOT be repeated in the ROS.

Now let's say the patient is febrile and an intravenous drug user. Now you believe the patient has endocarditis which is causing the chest and the fingertip pain. Since endocarditis can cause the chief complaint (see Figure C) of chest pain and cause fingertip pain (Osler's nodes), fingertip pain is pertinent information and should be mentioned in the HPI and not in the ROS. In other words, if you believe any "minor" complaints (which the patient usually mentions during ROS questioning) are being caused by the underlying process that could also cause the CC, then mention the "minor"(pertinent) complaints in the HPI. If the "minor"complaints are not caused by the underlying process that's causing the CC, then the "minor"(non-pertinent) complaints should be mentioned in the ROS. In summary, students should mention all patient complaints in the oral presentation. However, the difficulty is in what section should state the complaints (in the HPI or in the ROS).

Chief Complaint

Quickly stating the CC, prior to stating the one liner of the oral presentation, orientates the listener. If not mentioned, the listener becomes frustrated due to not having a reference point and thus stops paying attention. It's like going to lecture and not being told what the lecture is about. Example "The chief complaint is abdominal pain".

History of Presenting Illness (HPI)

The HPI can be one of the most difficult sections for students due to the great variability of styles. Therefore, Figure B and C were created to illustrate the difference between the patient's chronological story (Figure B) and the oral presentation story (Figure C). There are 3 general ways to present the HPI in the oral presentation:

1. In order of importance
2. Chronologically
3. No organization

For most attendings and complaints, method (1) is the best way to deliver the HPI, because there are 2 unwritten but important rules in oral presentations:

- i) listeners have limited memory space

ii) listeners have short attention spans

Method (1) takes in account both of the above rules by having the most important information (☹ and ▲) located at the beginning of the oral presentation illustrated by Figure C.

The second most common and entirely acceptable method is method (2). The reason for method (2)'s less popularity is that (2) does not address the previously mentioned unwritten rules of oral presentations. When presenting in chronological order, by the time the speaker gets to describing the CC (☹) the listeners (with their short attention spans and limited memory space) will not remember as many important facts. On the other hand, in some situations method (2) will work better than method (1) but unfortunately only experience will help the medical student decide when to use method (2).

Method (3) is how many medical students give oral presentations. All the information is in the HPI but in no particular order. No attending wants to hear an unstructured oral presentation. Please avoid method (3) as much as possible!

Most importantly, by keeping Figure C in your head, when you get interrupted with questions you will not lose your place and you will know what section to mention next.

a. The One Liner

The point of the one liner is to state important patient specific stats to help clinicians stratify certain disease risks in the patient. The items always included in the one liner are: the patient's age, sex, pertinent medical history relating to the CC, and the CC. Do NOT use diagnostic terms to describe the chief complaint. If the patient complains of chest pain, the CC = chest pain. The CC does NOT = angina, which is a diagnosis. In my experience there are two pathologies that should be in the one liner almost all of the time: Diabetes Mellitus (DM) and Hypertension (HTN). Why? Because DM and HTN are very common in the general population and over time they can affect every organ. However, DM and HTN can be left out of the one liner in situations where the CC could not be caused by DM or HTN.

Example of the one liner: "The patient is a {age} year old {sex} with a history of {pertinent PMH} who presents with {CC}"

b. ☹

The blue sad face represents the patient at the time of the interview. The CC should be fully evaluated (location, radiation, what makes it better or worse). Also this is where all the positive and negative pertinent information goes. In other words, mention any complaints YOU think are related to the CC. And do not list any complaints if YOU believe they are not related to the CC they go under the ROS section. For example, "The chest pain is dull, substernal with radiation only to the left arm. Chest pain gets worse with ambulation and improves with rest and sublingual nitroglycerin. The pain began this morning with three out of ten and now is eight out of ten."

Examples of common Chief Complaints

PAIN: "The patient describes the pain as {#} out of ten and is located substernally/hip/big toe... The pain is sharp/dull/pressure/throbbing in nature which is exacerbated by exercises/inspiration... but is alleviated by exercise/rest/medications..."

DIARRHEA: "The patient complains of diarrhea for the past {#days} with approximately {# episodes/day}. The stool is {color} with {no} hematochezia/melena. The diarrhea is {not} associated with food. The patient does {not} complain of being ill prior to diarrhea."

HEADACHE: "Pt. complains of {unilateral, bilateral} headache which began approximately

{#days} ago. The headache is {throbbing, continuous} which is {not} associated with {any} facial symptoms such as tears, facial numbness... No vision changes during episodes. Patient can not recall any triggers. Headache is {not} preceded by auras or exacerbated by exercise.”

c. 

Why the patient came into the ED is an important piece of information that is often forgotten by medical students. Since the beginning of the patient's illness, the patient has not sought medical assistance, but what happened to the patient to compel him/her to come to the ED. Patients sometimes volunteer the information right away – “I started having chest pain this morning, which I never had before, so I decided to come in or I have had a headache off and on for the past five years but last night the headache was totally different and woke me up. It is apparent in the previous two examples what changed to make the patient seek medical advice – new chest pain and different headache, respectively. But what about the following example: “I have been having diarrhea for the past three days. It might be easy to stop here and say she came in because she's having diarrhea for 3 days, is tired, and wants treatment. But if no one asked specifically why she came into the ED today and not yesterday or 2 days ago, the medical student would not find out that the patient noticed some blood in her stool this morning but has not had one since and therefore did not mention it until specifically asked. Then the patient gets really emotional and states that colon cancer runs in her family and her father died around her age due to undiagnosed colon cancer. Yes, you might get this info later on in the interview such as FmHx BUT you might not.

Example—“Patient came to the ED today because of _____ {pain became more severe, pt could not take it any longer, family persuaded pt to come in, medication stopped working}”.

d. 

Every listener wants to know how long the patient has had the chief complaint. The CC duration is important because the ranking of the differential diagnosis will change depending if the CC has been going on for 2 days versus 2 years. Keep it short and sweet.

Example—“The {chief complaint} started approximately {time} ago.”

e. 

The progression of the chief complaint is useful to relay how rapidly the CC is changing. Keep it big picture, do not give too much detail. The listener wants to know if the CC is getting worse, better, or unchanging. If the CC is getting worse tell how it's getting worse (it's lasting longer, becoming more frequent, does not respond to meds now). Like wise if the CC is getting better quickly explain how.

Example—“Since the first episode, the CC has been getting {worsening/improving/unchanged} due to {reason why CC is worse/improved}.”

f. 

Briefly mention previous hospitalizations or emergency department visits IF the prior encounter is pertinent to the present CC. What should be included is: Prior CC related to today's CC, date of hospitalization/ED visit, pertinent test results (CT, MRI, stress test), pertinent lab results (cbc, lipase, LFTs, Alci), and discharge treatment.

Example—“The patient was previously hospitalized for a similar chief complaint of chest pain 2 months ago. Patient had ST elevation and elevated troponins. Discharge diagnosis was Acute

Myocardial Infarction with medical management”

—“*The patient had a previous emergency department visit for a similar complaint of right upper quadrant abdominal pain 2 days ago. Right upper quadrant ultrasound then was normal. Patient sent home with the diagnosis of Abdominal Pain of Unknown Etiology with ibuprofen for pain.*”

What about the PMH, PSH, SocHx, and FmHx

One might notice the lack of Past Medical History (PMH), Past Surgical History (PSH), Social History (SocHx), and Family History (FmHx) from the above list. Their removal is necessary for a speedy and efficient oral presentation in EM. If all sections were included, the speaker would be tempted to add non-relevant information to fill in the sections. By decreasing the number of sections, the speaker is compelled to discard non-relevant information. If done correctly, there should be no formal mention of titles like PMH, PSH, SocHx, and FmHx. The less medical knowledge one has the less ability to determine what data is pertinent and not. Therefore, students should err on the side of safety and include questionable pertinent information.

ROS

For beginners, all complaints get mentioned— it’s just figuring out if the complaint goes in the HPI or ROS. However, resident training and higher have enough clinical knowledge to leave out mundane complaints. Right now assume you don’t know enough to leave out complaints. There might be a connection between the CC and a lesser complaint that an attending can make but a student might miss.

If there are no complaints that should go in the ROS then use the following phrase: “*Review of Systems is as previously mentioned in the HPI.*” If there are complaints in the ROS then use the following phrase: “*Review of Systems is as previously mentioned in the HPI but also includes...{non pertinent complaints}*”

There are situations where some non-pertinent complaints are serious enough to be relabeled as a second chief complaint. For example, the patient’s chief complaint is a leg injury but further questioning also reveals the patient to have dysuria, back pain, fever and chills which is concerning for pyelonephritis. If the patient is allowed only one chief complaint, then dysuria, back pain, fever and chills are not pertinent data and by definition should be stated in the ROS. However, at times, complaints in the ROS get forgotten or even ignored. Therefore, dysuria should be moved from ROS and added to the HPI as a second chief complaint— “*The patient is a 45 year old female who come to the ED complaining of a traumatic leg injury and dysuria.*” Then you should divide the patient’s history into two HPIs— one telling the pertinent information of the leg injury, the other telling the pertinent information of the dysuria.

PE

Always mention the Vital Signs first. It doesn’t matter what order they are mentioned, but a common order is Temperature, Blood Pressure, Heart Rate, Respiratory Rate, and Oxygen Saturation. With oxygen saturation always mention modality of the oxygen delivery (room air, nasal cannula, continuous positive airway pressure). A patient with an O₂ saturation of 91% on room air is much different than a patient with the same O₂ saturation but is receiving 100% oxygen via a mask. There are some exceptions where vitals do not have to be recited individually such as minor trauma complaints like laceration, broken toes/fingers). In these

cases it is usually acceptable to say “*the vitals are within normal limits*”. However, make sure you know the specific values if asked.

For clarification, saying “*vitals are within normal limits*” does NOT equal “*vitals are stable*”. Vitals within normal limits mean that the patient’s vitals fall within a range of universally acceptable values. “*Stable*” vitals mean you have been getting serial vital values which are not changing. Furthermore, stable vitals can be “*normal*” or “*abnormal*”. Normal stable vitals signs are unchanging vitals within the normal limits. Abnormal stable vital signs are unchanging but are not within the normal range. After the vitals, only mention the pertinent physical exam findings. It is assumed that you did a complete physical exam from head to toe and that all exams (lung, cardiovascular, GI, Neuro) are normal unless otherwise specified.

Example {CC = hand laceration} “*The vitals are within normal limits. The physical exam is non-contributory except for a 2 inch laceration on the thenar eminence. The laceration was superficial, no foreign bodies identified. The first digit had full range of motion, full strength, and no loss of sensation.*”

—{CC = abdominal pain} “*The vitals are: temperature of 38.5, blood pressure of 135 over 87, heart rate of 98, respiratory rate of 16, and oxygen saturation of 98 percent on room air. The physical exam is non-contributory except for the abdominal exam which revealed a distended abdomen, hyperactive bowel sounds, diffuse tenderness to palpation but no guarding and no rebound tenderness*”

Labs/Studies

Usually there are no lab/study results to report prior to the oral presentation. However if there are labs and/or studies to report, do NOT recite all the data. For labs, only mention the abnormal values. Example—“*the complete blood count is within normal limits and the chem 7 is within normal limits except for a sodium of 125.*” For studies, only mention the overall impression the radiologist reports or your personal impression of the study.

Example “*the chest x-ray shows a left lower opacity*”

Summary Statement

The purpose of the summary statement is to give an overall clinical picture in 2-4 sentences. There are 3 main components (listed as A, B, and C) which should be included into the summary statement:

A) The one liner

Within the one liner include the following components:

- a. progression of the chief complaint—getting better, getting worse, or is static
- b. chief complaint is chronic or acute

Example “*The patient is a 50 year old male with a history of Coronary Artery Disease and Coronary Artery Bypass Graft times two who presents with **improving acute** chest pain.*”

“*The patient is a 45 year old male with no significant past medical history who presents with **worsening acute** ankle pain.*”

B) 1-2 important symptoms and/or physical exam findings.

Example “*The chest pain is similar to a previous myocardial infarction in that pain decreases with rest and sublingual nitroglycerin and also has a friction rub on exam.*”

“*The right metacarpophalangeal joint is **swollen, erythematous, and painful***”

which is similar to previous episodes occurring after drinking large quantities of alcohol.”

C) **1-2 important diagnostic studies or labs if available.**

Example ð The **electrocardiogram** showed ST segment elevation in the inferior leads and the first **troponin** is still pending.ð

ð “The ankle **radiographs** shows soft tissue swelling, no fracture and the **joint tap** has needle shaped crystals.”

Do not recite all complaints, abnormal physical exam findings, or lab values in the summary statement because they were already mentioned earlier in the oral presentation. However, do mention the most important pertinent findings to refresh the listener’s memory.

For clarification, many students are instructed to give an impression statement after the physical exam section instead of a summary statement. However, students often are not given an explanation of how the two are different. To clarify the point, the two statements have been translated into symbolic definitions:

Summary Statement = the one liner + most important symptoms/PE findings + most important studies/labs

Impression = Summary Statement + speaker’s opinion of the most likely etiology or etiologies explaining the patient’s clinical picture.

Students should save their opinion for the Problem Assessment section in order to prevent the common mistake of only discussing one or two etiologies that can happen with using an Impression statement. As medical students gain experience, many switch to using the Impression instead of the Summary Statement which is acceptable but a more technical method.

Problem Assessment

The problem assessment is where each problem gets mentioned with you giving your analysis. The first problem mentioned does NOT have to be the patient’s chief complaint. For example, the patient complains of abdominal pain; but, since arriving to the ED the patient has started vomiting blood. The first problem mentioned should be hematemesis, not abdominal pain, even though the abdominal pain originally brought the patient to the ED. The general rule is to mention the most life threatening problem to the least life threatening problem.

Example ó 1. hematochezia

2. abdominal pain

3. headache

Within each problem you should give your assessment of the possible etiologies .

a. list the differential diagnosis

Once again there is no correct order. Since the job of the emergency department is to rule out life threatening causes you should list the most **harmful** etiologies first followed by the most **likely** etiologies. A general rule is to state 2 ó 4 etiologies from the harmful category and 2 ó 4 etiologies from the likely category. Do not mention every etiology because the presentation must be kept ideally under 3 -5minutes.

Example ð “The differential diagnosis includes...”

b. Give and explain facts that support and negate each etiology mentioned.

Use physical exam findings, labs or studies, patient’s risk factors to argue for or against each etiology mentioned.

One way to structure the Problem Assessment is as follows:

oThe most harmful etiologies are 1) _____, 2) _____ and 3) _____. 1) _____ is a possibility because of _____. However, _____ and _____ do not support this because of _____. 2) _____ is a possibility because of _____ but is less likely due to _____ and _____. 3) _____ is The most likely causes are i) _____, ii) _____, and iii) _____. I believe the most likely etiology is _____ because of _____ and _____ but _____ and _____ do not support this because of _____.”

Example — “The harmful etiologies could be a septic joint, fracture, or ligament tear. A septic joint is a possibility due to the ankle being swollen, hot and erythematous. Also the patient is an intravenous drug user which increases the risk of a septic joint. Fracture is another possibility but the patient does not remember any traumatic events, the joint is hot which is unlikely with a fracture, and there is diffuse tenderness—not point tenderness which would be expected with a fracture or ligament tears. The more likely etiology is an acute gouty episode because of a positive family history, recent alcohol use and the involved joint is the 1st metacarpophalangeal joint which is classically the involved joint for gout.”

Plan

The plan should include labs or studies to help confirm your diagnosis or eliminate possible etiologies. Generally, it is assumed the listener knows why the tests are being ordered and thus you should only give a brief explanation to the listener why each test should be ordered. Also, the plan should include how the patient should be taken care of right now. For instance, if the patient is in pain, give an analgesic. If the patient is dehydrated, give fluids.

Example o Therefore the current plan is to:

1. aspirate joint to check synovial fluid for crystals and send fluid for culture, gram stain, and white blood cell count.
2. for immediate pain relief, give 4 milligrams of morphine and give naproxen for anti-inflammation.”

Putting the Summary Statement, Problem Assessment and Plan together

“The patient is a 45 year old male with no significant past medical history who presents with worsening acute ankle pain. The right metacarpophalangeal joint is swollen, erythematous, and painful which is similar to previous episodes occurring after drinking large quantities of alcohol.”

“The harmful etiologies could be a septic joint, fracture, or ligament tear. A septic joint is a possibility due to the ankle being swollen, hot and erythematous. Also the patient is an intravenous drug user which increases the risk of a septic joint. Fracture is another possibility but the patient does not remember any traumatic events, the joint is hot which is unlikely with a fracture, and there is diffuse tenderness—not point tenderness which would be expected with a fracture or ligament tears. The more likely etiology is an acute gouty episode because of a positive family history, recent alcohol use and the involved joint is the 1st metacarpophalangeal joint which is classically the involved joint for gout

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We hope you have found this guide to be helpful. Remember, be flexible in your structure and rely on your attending or upper level residents to provide appropriate feedback. Sometimes they need encouragement, so don't be afraid to ask what you could have done better in your presentation. Also, remember that you are still a student. Your presentations still matter in terms of medical care, so err on the side of including more as opposed to less. Lastly, practice! Take advantage of every opportunity to present a patient that you can; you won't get better without trying!