Use this link to submit Homework - Session 1. Due by 5pm CST the day of the next sync session (June 28).

Please answer the following essay questions:

1. **What is meant by a "chief complaint?"**

   In the process of a patient encounter between a patient and physician, the “chief complaint” is the reason the patient presents to the physician for diagnosis. It is the problem or symptom that is being brought to the visit to be considered that is troubling the patient’s health or well being. It is an understanding of the issue from the patient’s point of view.

   In the example given in the text from pages 6-8, the chief complaint of the patient is that they are experiencing a “shortness of breath”

   In the interview between the patient and physician both respectively has a responsibility. The patient is the subject and as such is responsible to provide pertinent facts about their condition. The physician is the problem solver and is responsible eliciting feedback and guiding the interview. As discussed in lecture from session 1, an attending physician would let the dialogue take place and guide the interview. A intern might follow a checklist approach to gather the medical history.

   In the process, and through a question and answer process, the complaint will be considered and further refined by better limiting the pertinent data that is presented. All that is gathered help set the agenda for the day’s visit.

   Sources:
   - Problem Solving in Clinical Medicine, pp 6-8
   - Session 1 Lecture
   - Article “Setting the Agenda for the Clinical Interview”

2. **What are some of the issues related to capturing a chief complaint electronically within an emergency room environment?**

   Often in an emergency room environment it is a quick pace environment. As such, time may or may not exist to capture the relative data electronically quick enough. As opposed to a physician practice, an emergency room environment is not as structured. Chaos is often introduced.

   Another challenge is that patients may present in various states. For example the patient might be unconscious or otherwise unable to speak for the chief complaint themselves. In situations such as this, the physician is left to determine the chief complaint from input from the paramedics that may have brought the patient in or from

whoever is responsible for bringing the patient for care.

Also, the medical history of the patient may not be available in the hospital environment. The patient's electronic medical history could be with their primary provider. So when the physician or nurses review the medical history, it could be incomplete or unavailable. In other words, they have an incomplete picture.

3. **What is the difference between narrative and structured content and when should each be used in the context of physician documentation?**

Narrative content is as suggested in the term itself. It is taken in free form and is often more verbose in what is captured. It is more expresive and easier to read when being accessed in subsequent recalls through the application as it follows natural symantecs. Narrative content can be captured through dictation and then transcribed for further editing. Dictation is a preferred method of capturing this type of content by most clinicians. It can also be captured through direct entry.

Structured content is driven from pick lists, sticky notes, tagged content etc. The purpose is to preserve the input in a way that can be easily accessed and shared with other systems. It centers for the most part on standardizing the data to accomplish its purpose.

Each have their own applications. It might be more appropriate for a physician to use narrative entry when there is a lot of information in detail that needs to be captured in a note type format. Structured might be utilized to fill in the routine parts of the encounter where standard information is taken.

4. **When is it appropriate to use open-ended versus closed-ended questions?**

Open ended questions are used to elicit more information from a patient. They are used to encourage the patient to elaborate further so that further information can be obtained. If the patient hits a area and you need to go into it, the physician might ask, "So you mentioned that you are experiencing a shortness of breath, can you describe for me when this started? What if anything makes agitates the condition? What makes the symptoms better?" A question that prompts for further information and cannot be answered with a simple yes or no. It would be appropriate then to ask open ended questions when you need the patient to elaborate to obtain a more thorough history.

Close ended questions can be used to confirm facts or understanding on information already given. An example might be, "So you first started experiencing this shortness of breath 2 days ago, is that correct?" "You have no history of asthma?: The purpose of these questions is to generate a short response to confirm a fact.

Sources:

- Problem Solving in Clinical Medicine, pp 12-14
- Session 1 Lecture
- Article "Setting the Agenda for the Clinical Interview"

5. **How might capture of chief complaints electronically assist with bioterrorism surveillance?**

   Although this was not discussed in the chapter or assigned article readings this week, I can see myself how electronically captured chief complaints might help assist in bioterrorism surveillance.

   In order to be utilized, a national repository would have to exist where this information could be accessed. The chief complaint data would have to be taken by the EMR application used in the outpatient setting and then transmitted to the centralized repository. This in itself might be the challenge to prevent adoption. As shared in the article "Computer Technology for Effective Heath Care", data sharing and collaboration is challenging because health care data is highly heterogeneous. It requires the accumulation of many disparate systems. In this case, it is especially true as it spans across a vast geographical distance.

   As long as this data was captured in a structured manner, the data could then be searched. With the specific use of bioterrorism surveillance in mind, specific complaints could be searched and trend analysis done to identify "epidemics". Alerts could be triggered on certain complaints or symptoms. It would allow a more proactive approach and empower government agencies to get involved earlier in outbreaks.

   In addition this data as it is collected could help agencies to identify the source of bioterrorism threats as this data would show when and where a particular threat started. This would help law enforcement to narrow in and potentially capture the instigators.

6. **How does the data gathering process of experienced clinicians differ from that of students or new resident physicians?**

   The primary between an experienced clinician and that of a new resident is in the structure of how they each interact with the patient to obtain the chief complain and history of symptoms to set the agenda for the encounter visit.

   A resident physician due to their inexperience with the process is more inclined to be more rigid in their interaction and resort to a check list approach to collecting the data. An interview like this might seem less personal to the patient and they may not elicit enough information.

   An experienced physician as explained in the text uses a more "flexible approach and a

conversational style that seems to change order, bypassing some questions and asking others that are not in the traditional sequence." The physician and patient feel more natural in this interaction and the data collection is driven by the conversation and the agenda is set with the same flow. Unlike the opposite experience with the resident physician, the patient is more likely to feel a personal connection from the experience.

Sources:
- Problem Solving in Clinical Medicine, pp 12.
- Session 1 Lecture
- Article "Setting the Agenda for the Clinical Interview"

7. **What are some immediate observations a physician can make that help in the formulation of a differential diagnosis for a patient's chief complaint?**

   The text covers this quite well. Based on the chief complaint that the patient presents with, the physician can immediately make some quick observations, such as age, gender, weight, height, etc. by seeing their physical attributes. Further researching the patients history, the physician can fit the clues together and determine the liklihood of possible diagnosis in order of their relevenace.

   It is interesting how the text points out all the pieces of information that can be processed together at once. The texts example considers a 37 year old woman presenting with recurrent symmetrical polyarthritis.

   Sources:
   - Problem Solving in Clinical Medicine, pp 20-23.
   - Session 1 Lecture

8. **Describe the hypothetical-deductive method for establishing a clinical diagnosis.**

   This is the process by where a physician seeks to "rule in" or "rule out" possibilities of a the patient having a condition perceived in an initial hypothesis derived from ideas formed from the patients first interaction and explanation of their chief complaint. The physician is concentrated on proving or disproving this initial hypothesis.

   As shared in the text, "suppose a historical clue is *always* present in a certain disease; if it is not present in the patient under investigation, the disease is ruled out." The process then seeks to do this by finding supporting factors and commonalities that the patient would have to "rule in" the preconceived condition or hypothesis. Conversely, the absence of common factors supports the opposite. This structured testing of the hypothesis allows the interview and physical examination to be more focused and hypothesis driven. The interviewer is always looking for the presence or absence of clues to support his initial feeling.

It is pointed out in the text that "Very often the correct diagnosis is reached by the time the physician is only 2 minutes into the history". It seems then that this is a very effective means of narrowing an encounter.

Sources:
- Problem Solving in Clinical Medicine, pp 13.

9. **Why is it important for an outpatient physician to negotiate an agenda during an outpatient visit? How might this occur?**

It is important for an outpatient physician to negotiate an agenda as this sets the schedule for what will be discussed and investigated during the interview between the patient and physician. From initial hypothesis formed from the history collected the agenda will help structure the time available to rule in or out possible diagnosises.

An agenda can be formed by letting the natural flow of the interview formulate the schedule. An experienced clinician would use this method . A resident physician would collect and set the agenda from a predefined checklist. Both will work, but they experienced physician's method would be more natural as it flows in natural form with the conversation.

Source:
- Problem Solving in Clinical Medicine, pp 12-14
- Session 1 Lecture
- Article "Setting the Agenda for the Clinical Interview"