

## **Professor's Rounds – An Explicit Teaching Exercise in Clinical Reasoning**

Problem: Students are frequently criticized that they cannot “synthesize” the case. Many have difficulty with localization. Creating a comprehensive, concise, and prioritized differential can be a challenge. They may not have gotten the complete history because they approached the interview in a passive or superficial manner. Our expectations are high. We should teach our students how to do this *explicitly*.

Solution: Teach them how to:

- 1) Use the “approach” method with the chief complaint to generate localizations, diagnoses, and necessary questions. For example, the approach to memory loss, the approach to vertigo, the approach to hemiparesis...
- 2) Construct the history and exam proactively and based upon hypothesis testing, keeping an open mind while trying to narrow your focus.
- 3) Prioritize information as to not get side-tracked on red herrings
- 4) Localize and construct a comprehensive list of diagnoses while assigning probabilities based upon gathered information.

Teaching Objectives:

- 1) Create an atmosphere of discussion based upon a presented neurological case.
- 2) Professor's Rounds should go deeper than discussions on work rounds.
- 3) Explicitly discuss the approach to such a complaint, at each step of the process. The thought process should be put forth in detail, directed specifically at the student level of knowledge, and assuming that not all the students possess fundamental knowledge of neurology at this early stage of their clerkship.
- 4) The conference is not about pimping the presenter, but engaging the entire group. If the presentation is less than optimal, you can also teach the elements of a good presentation, or *help* lead the presenter.
- 5) At the end, even if the diagnosis was straight-forward or unknown, students should feel like they better understand the thought process of diagnoses.

Learning Objectives:

- 1) Prepare a patient case presentation, to be discussed by the attending and others. The presenting student should know everything about the case and present it succinctly for discussion to ensue.
- 2) Feel more comfortable with the clinical approach to a common symptom or problem
- 3) Understand how the history is used to make and test hypotheses.
- 4) Approach the exam with *a priori* hypotheses and localizations.
- 5) Synthesize the available data to construct a prioritized and complete differential diagnosis.
- 6) Order labs and tests based upon prioritized differential, key questions, and to optimize short and long-term management.

Teaching Techniques:

- 1) Stop after the chief complaint and basic identifying information. Spend 10-15 minutes reviewing the possibilities and constructing a preliminary differential.
- 2) Introduce them to a mnemonic for the problem or differential.
- 3) Have students generate questions which specifically test items on the differential.
- 4) Emphasize key pieces of information which really help to prioritize.
- 5) Highlight how localization leads to better organization and focus.
- 6) If the diagnosis is not clear by the end of the history, discuss the gaps and why they are needed prior to the physical exam.
- 7) Explain why key exam findings need extra attention and scrutiny *a priori*.
- 8) Review test and imaging results in depth. If you can open Clin Desk, give an overview on how to approach the MRI. NCS, EMG, VEP, EEG, LP would all benefit from some explanation.
- 9) Teach to your strengths and knowledge, and keep it broad and general when on less sure footing. You don't need to go deep into pathophysiology or nuances of disease variants.