How to Teach and Educate Residents and Students

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Neurology Clerkship

What do you need to know to be a successful teacher in this clerkship?
Stony Brook School of Medicine Competencies

- Same as the 6 ACGME competencies
Stony Brook School of Medicine Competencies

- Patient Care
- Medical Knowledge
- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice
Stony Brook Neurology Clerkship

Goals

- The student will master the principles and skills underlying the recognition and management of the neurologic diseases that a general medical practitioner is most likely to encounter in practice.

- To become proficient at obtaining a neurologic history and performing a neurologic exam.

- To become familiar with basic neurologic disease processes, their presentation, work-up, and treatment.
Stony Brook Neurology Clerkship

Objectives

- Obtain a complete and reliable neurologic history from patient and/or other sources
- Perform a complete neurologic examination including coma exam
- Deliver thorough oral presentation of a patient's history and examination
- Synthesize history, exam, laboratory findings and make an assessment of neurologic disease
- Improve communication skills
- Recognize symptoms that may signify neurologic disease
- Localize within the neuro-axis
- Formulate a differential diagnosis
- Demonstrate familiarity with the use and interpretation of common tests
  - (e.g., EEG, NCV/EMG, SSEP, MRI)
- Ideally to observe and/or participate in lumbar puncture
  - At a minimum, student must be able to explain how to perform Lumbar Puncture
- Demonstrate a systematic approach to the management of common neurologic disease
- Understand when it is appropriate to request neurologic consultation
- Review and interpret the medical literature
Neurology Clerkship Passport

- There are two Passports used in the clerkship
  - Paper Passport
    - 15 Clinical Skills that must be demonstrated
    - 10 Symptoms/diagnoses that must be seen
  - Online School of Medicine Passport
    - 4 Clinical Skills that must be demonstrated
    - 2 Clinical conditions that must be seen
      - Both conditions are seen during mandatory OSCE sessions
- Both require documentation of supervision by resident/attending
Neurology Clerkship Paper Passport

Clinical Skills Demonstrated

1. History from Patient
2. History from Family
3. Discussion w/ Family
4. Mental Status
5. Cranial Nerves
6. Motor
7. Sensory
8. Coordination
9. Gait
10. Coma Exam
11. Neuroradiologic Interpretation
12. EEG/EMG Discussion
13. Present to Attending
14. Patient Oral Summary
15. Written H+P
16. Lumbar Puncture (optional)

Symptoms/Diagnoses Seen

1. Headache
2. Focal Pain (Back, Neck, etc)
3. Focal Weakness
4. Sensory Symptom
5. Visual Complaint
6. Gait Disorder
7. Dizziness (vertigo, LH, syncope)
8. Dysarthria/Dysphagia
9. Memory Loss
10. Cognitive Disorder (neglect, aphasia)
11. Altered Level of Consciousness
12. Stroke/Cerebrovascular
13. Seizure
14. Neuromuscular Disorder
15. Psychogenic/Conversion
16. Cranial Neuropathy
17. Movement Disorder
Neurology Clerkship Online Passport

**Clinical Skills Demonstrated**

1. Interpretation of Head CT
2. Interpretation of CSF findings
3. Perform complete Mental Status Exam (beyond just MMSE)
4. Explain how to perform Lumbar Puncture (students are not required to actually perform)

**Clinical Conditions Seen**

1. Altered Level of Consciousness
2. Stroke
Mid-Clerkship Feedback

- By Clerkship Site Director
- Need *weekly* student evaluations
- Written Feedback
Great Past and Future
Teachers of Neurology

Insert photo of your Chairperson here

Insert photo of your well loved faculty member here

Prof. Jean M. Charcot

Insert photo of your current resident here
Teaching is Tough

- Time constraints
- Clinical responsibilities
- Patient relationships
- Reserving judgment
- Adjusting teaching to different skill levels, sometimes simultaneously
- Teaching without intimidating or annoying
The One-Minute Teacher: Six Microskills for Clinical Teaching

1. Get a commitment
2. Probe for supporting evidence
3. Teach general rules
4. Reinforce what was right
5. Correct mistakes
6. Identify next learning steps
The One-Minute Teacher:
Six Microskills for Clinical Teaching

1. Get a commitment

   *What do you think is going on?*

2. Probe for supporting evidence

   *What led you to that conclusion?*

3. Teach general rules

   *When this happens, do this…*

4. Reinforce what was right

   *Specifically, you did an excellent job of…*

5. Correct mistakes

   *Next time this happens, try this…*

6. Identify next learning steps

   *What do we need to learn more about?*
Model Concepts

- Focuses the teacher-learner encounter on the decision-making process used by the learner (i.e., diagnose the learner!).

- Teacher has access to facts the learner uses in decision-making as well as to the decision-making process itself.

- Teaching moments must be highly efficient; encounters are <5 minutes.
1. Get a Commitment

- Early into an encounter with a teacher, the learner should be encouraged to make a commitment to a diagnosis, work-up, or therapeutic plan.

- The learner feels responsible for patient care, and enjoys a more collaborative role in problem solving.

- Supportive environment of intellectual honesty required.

- Cue: when learner presents patient facts and then stops; *resist urge to fill in the verbal blanks!*
Example questions:

- "What do you think is going on with this patient?"
- "What laboratory tests do you feel are indicated?"
- "What would you like to accomplish on this visit?"
- "For what reasons do you think this patient has been noncompliant?"
2. Probe for Supporting Evidence

- Help the learner reflect upon the mental processes used to arrive at a decision

- Identify what the learner does and does not know

- Cue: the learner commits to a stance and looks to the teacher for confirmation; *suppress the desire to pass judgment*!
Example questions:

- "What were the major findings that led you to that diagnosis?"
- "For what reason did you choose that medication?"
- "What factors did you take into account when you...?"
- "What else did you consider?"

This is not a grilling session!
"Thinking out loud" must be a low-risk adventure
3. Teach General Rules

- Keep it to 1 to 3 general rules at most
- Keep information general
  - Avoid anecdotes and idiosyncratic preferences
- Use “What if?”
- Compare to similar patients

Examples:

- “If a patient has an abscess, antibiotics absent drainage will not be curative.”
- “If a patient has a hemorrhage, tPA is never an option”.
- “What if the CSF actually showed…?”
- “How does this patient compare to that headache patient from yesterday?”
4. Reinforce What Was Done Right

- Competencies must be repeatedly rewarded and reinforced.
- Build upon the learner's professional self-esteem
- Focus on specific behaviors.

Example:

- “You considered the patient's finances in your selection of therapy. Your sensitivity to this will certainly contribute to the patient’s compliance. Good job.”
5. Correct Mistakes

- We tend to put this step first, but should not
- An appropriate time and place must be chosen
- Ask learners to critique their own performance first
- Focus on how to correct the problem or avoid it in the future

**Example:**

- “You could be right that this might be a TIA. But don’t forget to include seizure in your differential diagnosis. You should always include seizure in your differential for transient neurologic symptoms.”
6. Identify Next Learning Steps

- Fosters self-directed learning;
  - facilitate the learner identifying his/her needs
- Agree upon an action plan (e.g., homework)

Examples:

- “What do you think you need to learn more about?”
- “How will you avoid that pitfall next time?”
- “That’s a good topic to look up.”
- “Where might you look into that?”
- “Let’s agree to discuss this again at our next session together.”
Is 6 Microskills too much to remember?
SNAPPS (SL-NAPPS)

- Summarize history and findings
- (Localize)
- Narrow the differential
- Analyze the differential – compare possibilities
- Probe the preceptor – ask questions
- Plan management
- Select case-related issue for self-study
More Teaching Tips

- Have students do a formal introduction of themselves
  - Get personal
  - “Tell me something about yourself”
  - “What are you going into, and what do you want from this clerkship?”
More Teaching Tips
Educational Contract

- What do I expect of you?
- What do you expect of me?
  - “What are your needs?”
  - “How can I be of most help to you now/today/this rotation?”
More Teaching Tips, cont.
How to get students to participate?

- Make eye contact with a particular student
  - Lower your voice, talk “conversationally”

- 7 Second rule
  - Wait at least 7 seconds after you ask a question before you answer it yourself

- Ask “What do you think”
  - Especially when you are asking an opinion question rather than looking for a factoid
    - Works for “how”, “why”, or “localization” questions.
More Teaching Tips, cont.

How to get students to participate?

- Challenge the right answers too!
  - “Are you sure?”
  - “Why do you think that?”
  - Be the Devil’s advocate
  - Engage the learner!

- Say “What a great idea!” instead of “Right – you got it!”
  - Maybe there is more than 1 correct answer
  - Opens it up to let others answer as well
More Teaching Tips, cont.

How to get students to participate?

- Black-White questions vs Blue-Green questions
  - Don’t use “fake” open-ended questions that actually have a clear Right or Wrong Answer
- Get students to be involved, especially when it isn’t a “costly” question
More Teaching Tips, cont.

- Catch them doing something right!
- (confession: I don’t do this enough)
More Teaching Tips, cont.

Feedback

- Say, “Here is your feedback”
## Written Feedback

### Be Sincere

### Good narrative comments are:
- Constructive
- Concise
- Specific
- Actionable

### Review the learning objectives and desired competencies for the rotation

### What is the learner doing well?
- Describe specific skills or behaviors you observed which illustrate that the person has met expectations for 1-2 learning objectives

### What could be improved?
- Describe specific skills or behaviors you observed which you feel that the person should further develop before the next level of training

### Consider modifiers:
- **Time:** Consistent, reliable, making progress
- **Accuracy:** precise, complete, comprehensive
- **Organization:** organized, systemic, logical.
- **Presentation:** Clear, articulate, expressive
- **Lifelong Learning:** insightful, responsive, demonstrating initiative

### Avoid vague, global statements such as “great to work with” or “good student”
Written Feedback
Teaching is Tough

- Takes practice
- Will not always succeed
- Friction with trainees who develop their own opinions and styles throughout training
- Keeps teacher on their toes
- The TEACHER must be willing to constructively withstand correction/criticism
Tips and Suggestions on Teaching and Giving Feedback to Residents and Students.

Vanderbilt University Medical Center
Department of Neurology
Thank you to Vanderbilt, Johns Hopkins, and Harvard Medical School

- Tips and Suggestions on Teaching and Giving Feedback
  - Vanderbilt University Medical Center Department of Neurology
- Preparing Written Comments / Giving Feedback
  - Johns Hopkins Medicine
- Other tips
  - Principles of Medical Education: Maximizing your Teaching Skills
    - Beth Israel Deaconess Medical Center / Harvard Medical School
Let’s Go!

- Try this today!
- Try it with a Junior Resident
- Try it with a Student
- Try it on Rounds
- Try it in Conference