

DSR 1 Orientation

Introduction

The Triad + Teaching

The Doctoring Skills Rotation (DSR) involves a myriad of different training techniques and opportunities for unique learning. No two DSR blocks are exactly the same. At the rotation's core, however, exists 3 primary objectives:

- Demonstration and evaluation of bedside interview technique and behavior
- Physical examination skills training
- Development of medical literature appraisal aptitude

The PGY 1 resident (intern) undergoes a 3-week teaching course to develop competence and confidence in teaching .

Bedside Interview

Every learner on DSR will have a supervised bedside interview. Interns will usually complete 2-3 during the rotation. Good patients to interview are those who are English-speaking and willing to participate at bedside and are procured by the interns one or two days prior to an interview day. Interns are encouraged to maintain an active log of inpatients throughout the course to ensure patients are available for interview rounds.

Physical Examination

Patients are procured by the interns on the rotation the day prior to the physical examination activities.

Pulmonic

The lungs are another classic examination at the bedside for the learner to complete. Instructors again must be sure the learners are conducting a thorough examination of the system and offering descriptions of what they are hearing to the peer audience or to the bedside physician. In fact, one recommendation would be to have all the learners listen prior to speaking about their personal findings, perhaps even write them down first to avoid contaminating the other learners' experience. Below is a list of high-yield points for the pulmonic examination.

1. Appropriately prepares examination area. (gown, bed position, etc)
2. Observes any abnormalities on the chest wall and back
3. Auscultation is symmetric and comparative between the left and right lung fields
4. Anterior examination is also conducted, particularly in the RML area
5. Palpation and percussion are used appropriately during examination
6. Egophony and other secondary examinations are also considered if necessary
7. Once completed with examination, the student is able to synthesize clinical findings into a coherent differential

Abdominal

The abdomen is a full and multifaceted examination that offers the greatest opportunity for tactile training on physical examination. Auscultation, percussion, and palpation must be observed, discussed, and evaluated at bedside. Typically the complete abdominal examination

will provide a great opportunity to also discuss the full disease process in a patient such as cirrhosis, obstructive processes, or undifferentiated abdominal pain. Take time with the abdominal examination so that all learners can demonstrate both physical exam proficiency and fund of knowledge. Below is a list of high-yield points for the abdominal examination.

1. Appropriately prepares examination area. (gown, bed position, etc)
2. Observes any abnormalities on the abdominal wall, inspection of area
3. Auscultates the bowel and vascular system of the abdomen
4. Palpates the abdomen with appropriate evaluation of the liver and spleen
5. Percussion is conducted with skill, evaluating both normal and abnormal findings
6. Examiner pays attention to the patient's possible discomfort during exam through facial expressions, guarding, and rebound tenderness
7. Special considerations and differential is synthesized from abnormal findings

Evidence-based Literature Review and Critical Appraisal

Finding articles and demonstrating competence and confidence in the critical appraisal of the medical literature is a fundamental objective of the Doctoring Skills Rotation. The course provides near-daily opportunities to obtain supportive and instructive data from the literature for real patients in the hospital. Patient-driven literature searching is certainly not a new topic and while all of us hope to provide best-practice medicine it is far underutilized. The DSR rotation offers time for investigation of the literature and reflection evidence-based medical practice. Learners are encouraged to practice EBM throughout the course and obtain faster "EBM instincts" on how to approach a patient-based learning (PBL) assignment.

Many types of articles exist within PubMed. While all articles are welcome to be discussed at bedside, the DSR encourages original research topics in the areas of etiology, diagnosis, therapy, and prognosis. Each of these represents a core component in the day-to-day treatment of patients. PICO (Patient information, Intervention, Control, Outcome) is the primary acronym of the course and will often be a mechanism by which PBL assignment topics can be encouraged. Even without the PICO format, all topics should be patient-centered and appropriately linked with recent interviews, discussions, or physical examinations in the DSR. Please see the EBM Guidebook in the Appendix for further details on critical appraisal.

The Teaching Model

DSR is conducted with the small group teaching method. The classic team is comprised of 1 attending, 3-4 interns. From 8-9AM the full group meets to discuss cases, PBL assignments, general teaching of curriculum, patient interviews and physical exam teaching. At the end of the morning the teams discuss potential topics to research in the medical literature (PBL assignments).

Throughout the morning, every experience should be considered an opportunity for evaluation and feedback. The DSR employs small pocket-sized cards for evaluating communication, physical examination, teaching, clinical synthesis, and presentation skills. The cards are simple checklists to encourage points of feedback, open discussion amongst the group about the exercise, and to provide a baseline for vetting competence in that particular area. The afternoons are free to the physicians to complete other clinical duties. The interns and

students are responsible for finding new patients for the course, researching the PBL assignment, and completing other responsibilities during the clerkship (i.e. clinical and curricular duties).

Teamwork in Training

The Faculty

The faculty members involved in the DSR are the program directors or chief residents. The primary physician is in charge of ensuring the interns meet all of the curricular needs during the course and allows the conduct of the course to have a familiar face for the learners.

The Interns

The interns are the engine of the DSR; finding patients, and organizing teaching assignments and presenting at journal club. They are not only responsible for completing the triad of interviewing, physical examination, and critical appraisal, but must also complete the teaching curriculum during the course. During the weeks of the DSR the interns undergo training in the teachable moment and observe and practice giving feedback at the bedside.

Problem-based Learning (PBL) and Critical Appraisal Discussion

Small Group Discussion

At the beginning of the rotation, the interns receive a small group discussion introducing the topics of medical literature review and critical appraisal of the medical literature. The focus of the talk involves increasing the familiarity and comfort with asking a patient-focused PBL question, researching the question, and developing an answer to that question by critically appraising an article.

In this small group talk we discuss usage of the abstracts and the PubMed ID (PMID) to return to PubMed to retrieve an article. By offering this mechanism of retrieval the students and interns become far more invested into retrieving the article not just reading the review in UpToDate. Further discussion involves use of UpToDate in daily medical rounds. UpToDate is another incredible resource we have all grown accustomed to using.

Medical Statistics

The second half of the discussion is a review of common medical statistics found in the literature. This is by no means a complete course on the topic and the goal of the review is to refamiliarize the learners to common mathematical practices in medicine and to explore appraisal methods to evaluate the article's "strength". The table below highlights a few of the topics in the lecture. A PowerPoint and Keynote presentation is available for use by any attending.

These 9 concepts represent a core set of statistics that can assist in the critical appraisal of a article.

1. Sensitivity
2. Specificity
3. Positive predictive value
4. Negative predictive value
5. Relative risk reduction

6. Attributable risk reduction
7. Likelihood ratios
8. Prevalence/Incidence

Journal Club

During each 3-week rotation each intern is required to critically appraise and present articles in the residency journal club. Both interns present each session and begin the discussion for the hour. The format is as follows:

12-12:10 – the 1st intern discusses the article and gives an opening critique of the methods, results, and conclusions from the paper

12:10-12:30 – Open discussion among the audience 12:30-12:40 – The 2nd intern presents the second article

12:40-1PM – Further discussion, debate, and conclusions complete the journal club with final wrap-up

Overall, the journal club is designed to be a comfortable discussion format. It is relatively low-stakes and promotes understanding about general topics or discrepancies in medical practice.

The interns turn in their critical appraisals to the host-physician to be included in their residency file. An evaluation of each intern should be completed at that time.

Teaching Sessions

Introduction

Goal: To introduce the interns into the teaching role.

What makes a good teacher good?

Why is a teacher a good teacher? Ask the interns to think of a wonderful example of a teacher they had in the past. This could be in school, a coach, anyone really. Then ask the interns to explain what characteristics within that individual helped them teach so effectively.

The conversation usually involves words such as “humor,” “held me to high but reachable expectations,” and “taught at my level.” The conversation can even open up to a quick brainstorming session about great characteristics in teachers. Have the interns rank the top 3-5 in the list. Discuss.

What is pimping?

One of the fundamental paradigms medical education must defeat is the act of malignant questioning. It generally defeats team-based discussion and commonly belittles a learner’s knowledge. Ask the interns to explain pimping and its effects on team learning and morale. Perhaps even role-play a session with the group.

Once pimping has been discussed the next question is how to change the learning environment. How do we avoid pimping? Ask the interns to brainstorm on the idea and discuss. General concepts to be taught include querying the audience for knowledge and encouraging exploration of current understanding. If a limitation in current knowledge is found

then a teachable moment can be initiated.

What is a teachable moment?

A teachable moment can happen anywhere and involve just about anything. Given the apprenticeship style of learning common between intern and student, senior resident and intern, or attending and team, many instances will occur when the learners can gain new knowledge from in a brief period of time – the teachable moment. In fact, it should be emphasized that the teacher need not be the expert. Interns interact with students more often than any other doctor on service. They are the teachers and they can be very effective teachers throughout their training.

In your discussion with the interns discuss moments when they had great teaching at the bedside, in the call room, reviewing radiology, anywhere. Why were those sessions effective? Or, ask the opposite. Can the interns think of a time when teaching just wasn't effective at the bedside? What were the limitations? Once several examples are discussed the question can be posed, "How do I take advantage of a teachable moment and make it an effective session?" By using the 5 Microskills of Teaching an intern can engage a learner and teach with comfort. The 5E's can also be utilized in teaching specifically about a medical interview. Both methods are listed below:

The 5 Microskills of Teaching

Get a commitment:

- "What do you think is going on with this patient?"
- "What would you like to do?"
- Even a hunch or guess is better for learning than no commitment.

Probe for supporting evidence:

- "What led you to that diagnosis?"
- "Why did you choose that drug?"
- Helps preceptor identify what the learner does and does not know.
- Must be a pleasant discussion.

Teach general principles:

- "If the patient has cellulitis, incision and drainage won't help. That's for an abscess, which you recognize by fluctuance."
- Can skip if learner already knows general principles.

Reinforce what was done right:

- "It was good that you considered the patient's age when you prescribed that drug because other drug classes can cause more side effects in the elderly."
- Must reward specific competencies.

Correct mistakes:

- "You could be right that you won't harm the brachial artery when you draw a blood gas, but if you use the radial artery you won't risk cutting off the arterial supply to the whole arm."

- Have them self-critique first.
- Be specific about what the learner needs to correct.
- Best done in private if the criticism is major.

The 5 E's of Patient Interviewing

Engage

- Introduce yourself
- Sit down
- Use open-ended questions
- Clearly set agendas

Empathize

- Ensure patient's comfort
- Show you are listening
- Reflect your concern
- Touch the patient
- Admit and deal with difficulties
- Understand the meaning of the illness

Educate

- Ask what the patient knows
- Ask what the patient believes
- Teach what the patient wants
- Ensure the patient's understanding
- Define everyone's boundaries

Extend

- Extend yourself
- Extend the "system"

Enlist

- Set reasonable goals
- Form a partnership
- Contract with the patient

Bedside Presentation

Goal:

To encourage recognition of teachable moments in a preround environment and to effectively organize a morning rounds.

Assignment:

The interns are responsible for organizing a DSR prerounds with a teaching patient for each student on the team. Interns will monitor the bedside interview process, assist with organizing the student presentations, and readying the team for rounds. During this whole process interns are responsible for finding and potentially engaging in teachable moments during the prerounding session.

Briefing:

This teaching assignment is a laboratory for the daily rounds all students and residents endure on a near-daily basis. The difference is in perception of what is important. Where is the education occurring in the morning? Where can it happen? What are the topics? This is a regular favorite for both interns due to its familiarity and its complete reversal between service and education.

The discussion with the interns prior to the assignment should involve a candid discussion about prerounds in the morning. What is the agenda for the team each morning? Is teaching a priority? If so, when, and where does it happen?

Also, interns should remember and discuss what it was like to present at the bedside as a student and now as an intern. What are the advantages, disadvantages, perceptions and fears of presenting in front of the patient and the team?

Once the discussion has wound down the interns should pick a patient to preround on prior to the attendings arrival the same morning. In fact, the interns can commonly find new patients at a morning report or float signout the morning of the teaching assignment, depending on availability of English-speaking patients. Interns will introduce the student to the patient. Allow them to interview with occasional checking-in by the intern to answer questions.

Once interviews are completed the intern should discuss the case with the student and involve microskills and the 5E's. The student must be prepared to present at the bedside by 9:30 in the morning to an attending. At the end of the presentations a debriefing will occur with the students and interns to discuss the day, what were the students perceptions and fears at the bedside, and a through review of all possible teachable moments that occurred during the prerounding period. What did the interns teach during prerounds?

Bedside Teaching

Goal:

To complete a teaching session at the bedside.

Assignment:

The interns will each teach students for 10-15 on a specific physical examination at a patient bedside

Briefing:

Interns are commonly with students at the bedside each morning and throughout the day. Many interns are apprehensive about teaching at the bedside and also having others watch the teaching. Interns are to discuss the following the advantages, disadvantages, perceptions and fears about education in front of a patient and attending.

After discussing the concerns and strengths of bedside teaching the interns are responsible for finding a patient to teach about with the students the following morning. The interns can pick the topic and patient they wish to teach with at the bedside. While many teachable moments are available, physical examination tends to be a good, hands-on session and should be encouraged. Physical examination also offers the attending a more standardized session for evaluation and feedback.

Ultrasound

Goals and objectives:

- To introduce using ultrasound equipment
- To become accustomed to ultrasound probes and buttons
- Techniques to use ultrasound
- Clinical applicability of ultrasound

Simulation Sessions

Goals and objectives:

- To introduce interns how to manage airway emergencies
- Introduction to simulation environment
- Understand oral and nasal airways