

# Improving Resident Teaching Skills: Teaching Residents to Teach

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## **Issues to consider when designing a teaching program**

1. Learning objectives
2. Timing
  - Incoming second year residents are eager/anxious to take on their new role as team leader.
  - Rising third year residents have some experience teaching and can provide practical tips for upcoming residents as well as further refine their own skills
3. Number of sessions
  - a. One full day session (retreat)
  - b. Two 2-3 hour sessions
  - c. 5-6 one hour lectures
4. Format of sessions
  - a. Lecture
  - b. Small-group
5. Techniques for teaching
  - a. Videotape
  - b. Roleplay
  - c. Case vignettes with reflection
6. Resident coverage for participants
7. Evaluation

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## **Background**

Studies have estimated that residents spend up to 20% of their time on teaching activities, regardless of their department or future career plans<sup>1</sup>. Residents recognize they have responsibility for teaching medical students as well as fellow residents. In fact, resident surveys demonstrate that residents enjoy teaching and consider it a critical component of their own experience and education<sup>2</sup>. Studies also show that resident teaching roles are complementary to attending teaching roles and that residents conduct more teaching at the bedside<sup>3</sup>. Additionally, one survey of medical students found that students estimated that one-third of their knowledge could be directly attributed to housestaff teaching<sup>4</sup>.

Despite their significant teaching responsibilities however, many residents receive no formal instruction on how to teach effectively. Although some residents have natural teaching and leadership abilities, others struggle with the transition from intern to ward resident. Despite the fact that “residents-as-teachers” curricula are becoming more common in residency training programs, surveyed program directors still express the need for more resident instruction in teaching skills<sup>5</sup>.

Previously reported interventions to improve residents’ teaching skills suggest that even brief, formal instruction in teaching allow residents to be more effective educators and derive greater satisfaction and enjoyment from teaching<sup>6</sup>. Formal teaching instruction has also been shown to improve resident teaching evaluations and resident ability to provide feedback<sup>7</sup>.

<sup>1</sup> Greenberg LW, Goldberg RM, and Jewett LS. Teaching in the clinical setting: Factors influencing residents’ perceptions, confidence and behavior. *Medical Education* 1984;18:360-5.

<sup>2</sup> Apter A, Metzger R, et al. Residents’ perceptions of their role as teachers. *Journal of Medical Education*, 1988;63:900-905.

<sup>3</sup> Treemonti LP and Biddle WB. Teaching behaviors of residents and faculty members. *Journal of Medical Education*, 1982;57:854-859.

<sup>4</sup> Bing-You RG and Sproul MS. Medical students’ perceptions of themselves and residents as teachers. *Medical Teacher*, 1992;14(2/3):133-138.

<sup>5</sup> Morrison EH, Friedland JA, et al. Residents-as-teachers training in U.S. residency programs and offices of graduate medical education. *Academic Medicine*, 2001;76(10):S1-S4.

<sup>6</sup> Spickard A III, Corbett EC Jr, Schorling JB. Improving residents’ teaching skills and attitudes toward teaching. *J Gen Intern Med*. 1996;11:475-80

<sup>7</sup> Bing-You RG and Harvey BJ. Factors related to residents’ desire and ability to teach in the clinical setting. *Teaching and Learning in Medicine*, 1991;3(2):85-100.

### **What Makes a Good Teacher?**

- Enthusiasm!
- Ability to connect with learners, involve them and have fun.
- Knowledge of learner, of patients, and of subject matter.
- Provides clarity and organization.
- Models desired skills.
- Gives frequent, specific feedback.
- Ability to create a positive learning climate.

*Think about an outstanding teacher you've had in the past. What qualities made him/her an excellent teacher?*

### **Creating a Positive Learning Climate**

- Be an enthusiastic teacher.
- Set aside time for teaching.
- Treat learners with respect.
- Role-model the behaviors you think are valuable.
- Interact with learners and ask questions.
- Admit when you do not know something. A positive learning climate is created when the teacher is not seen as all knowing.

*How did your "outstanding teacher" (above) create a positive learning climate? What can you do to create a positive learning climate when you are leading a team?*

### **Non-Facilitating Teaching Behaviors**

- Does not stimulate further discussion.
- Treating others disrespectfully.
- Insufficient wait-time before answering your own question.
- "Low-level" questions, or requests for facts only.
- Non-specific feedback given.

### **Psychological Size**

Definition: how you and your role are perceived by others.

*What is the "psychological size" of a teacher who is autocratic, talks loudly, and criticizes others when they give an incorrect answer? Is it large or small?*

*How does one's psychological size affect teaching/learning?*

*How can you change your psychological teaching size?*

### References:

Irby DM. What clinical teachers in medicine need to know. *Academic Medicine*, 1994;69(5):333-342.

## **Microskills of Teaching**

There are many teaching skills described in the literature. However, residents have multiple patient-care responsibilities and clearly have limited time for teaching. Thus, any educational methods used by residents should be succinct and easily conveyed in order to be effective. The teaching microskills presented here fit into a “five-minute” model and can easily be transported to a clinic or hospital-based setting.

Additionally, any teaching that directly involves patients will improve learning as patients make lasting impressions on students and will fix an experience in the student’s memory.

### General Factors that Improve Teaching Effectiveness

- Create a positive learning climate for learners. Be enthusiastic!
- Be aware of time management and teachable moments.  
Ask yourself if this is a good time to teach? Assess the needs of your learners.
- Ask your learners what their goals are for the rotation and what they would like to learn. This will help to tailor your teaching efforts.
- Model self-directed learning.  
Encourage learners to identify their knowledge limitations. Encourage learners to ask questions, read, and obtain consultations.

### General Factors that Improve a Learner’s Retention of Teaching Subject

- Present information in a clear, organized manner.
- Emphasize key, take-home points.
- Actively involve learners.
- Use clinical experiences/patients in teaching.  
This has been shown to improve learner understanding of material.

### Microskill: Verbal modeling

Due to time constraints, observational learning—primary learning by observing others—is often the main method of learning by students and residents. Bringing observational learning to the awareness of the learner will improve retention of learning material. For example, if a teacher directly points out to learners that he/she is modeling a learning task, learners have improved recall of the material.

Verbal modeling involves “thinking aloud” for learners in order to explain and demonstrate the thought processes of the teacher. The teacher should explicitly state that he/she is going to verbalize clinical reasoning in order to teach.

*Example: “I am going to verbally walk-you-through how I like to think about resuscitation during a code situation. First, I think about the ABC’s—airway, breathing, cardiac...”*

Verbal modeling is advantageous for teaching procedures or in situations with little time for “formal” teaching.

*Case: You are the resident leading walk rounds. As you are rounding, you are called by the nurse to evaluate one of your patients who has become acutely short-of-breath. The patient is complaining of pleuritic chest pain. Her BP is 90/50 with a HR of 110. Her O2 sat is 87% on RA. Her JVP is elevated, her lungs are clear, and her heart is tachycardic. As the resident, role-play how you would teach your team members while taking care of this acute situation.*

*Case: You are the resident of a team. You are going to attempt to teach your new third-year medical student how to perform an ABG. Role-play how you would teach this procedure.*

### **Microskill: One-Minute Preceptor**

Originally designed for the out-patient setting (precepting). But, can be used in in-patient or out-patient setting.

*Involves 5 steps:*

- 1. Get a commitment.*
- 2. Probe for supporting evidence.*
- 3. Teach general rules.*
- 4. Reinforce what was done right.*
- 5. Correct mistakes.*

**STEP 1: Get a commitment:** When the learner has finished presenting the case, the learner often “stops”. Ask the learner what he/she thinks about the case. This encourages the learner to process the information gathered. If the learner can’t put together data to form an opinion, you should abandon the one-minute preceptor model as the learner is not processing the information.

*Use questions: “What do you think is going on?” or “What do you want to do next?”*

Avoid the need to gather more data—you can do this later. So, for example, avoid asking questions such as “What were the vitals?” etc.

**STEP 2: Probe for supporting evidence:** Before offering your opinion, ask the learner for evidence that supports his/her opinion. You can also ask what else he/she considered. This allows you to identify where there are gaps in knowledge.

*Ask: "What were findings that led to your conclusion?" or "What else did you consider?"*

It is important the learner not feel "grilled" by questions. Your questions serve the purpose of finding out what the learner knows/doesn't know.

**STEP 3: Teach general rules:** From what the learner has presented, a teaching point will usually become apparent. Provide general rules/concepts that are targeted to the learner's level of understanding. If the learner has performed well and there is no new information to be added, you can skip this step. General praise is not helpful. You can also model how to access resources.

*Can ask "how can I help you with this case?"*

*Example: "I haven't encountered this urologic problem before. I've found the best urologic text book is \_\_\_\_."*

**STEP 4: Reinforce what was done right:** Reinforcing correct behavior helps the behavior become firmly established. Provide positive feedback—this gives an easy segue into teaching of general rules and correcting mistakes. Comments should focus on specific behaviors rather than general praise as general praise does not reinforce a particular behavior.

*Example: "I really liked how you explained the procedure in very simple medical terms so the patient could understand." Rather than "Good job explaining that procedure."*

**STEP 5: Correct mistakes:** As soon after mistake as possible, find an appropriate time to discuss. Do be aware of whether a private setting is needed to adequately discuss mistakes. If possible, allow the learner to critique his/her performance first.

*Example: "You're right that most acute low-back pain is musculoskeletal in nature, but in order to rule out dangerous etiologies like cord compression, it is necessary to always ask about warning symptoms such as bowel or bladder incontinence."*

Practice the One-Minute Preceptor with the following cases:

**Case I**

**Student:** *"Mr. WK is a 63 yo man with a h/o heavy ETOH who presents to the ED with a 2-day history of SOB and cough. The cough is productive of rust-colored sputum. He's had some right-sided pleuritic CP and a fever to 101. On exam, BP 107/63, pulse 110, O2 sat 91% on RA. HEENT normal. No LAD. Lungs reveal bronchial breath sounds on the right with egophany and tactile fremitus. Left side is clear. CV RRR no m/r/g. Abdomen benign."*

**Resident:** *Using one-minute preceptor model (Get a commitment, Probe for supporting evidence, Teach general rules, Reinforce what was done right, Correct mistakes), how would you teach the student about this case?*

### **Case II**

**Student:** “Ms. L.C. is a 26 yo woman who presents to the ED c/o back pain for 5 days. She has had F/C x 2 days. She has nausea and poor appetite. She has no vomiting/change stools/dysuria. She is heterosexual and has a new male partner over the last 2 months. On exam, she is in NAD. T 100.6, BP 108/66, pulse 92, RR 16. HEENT is normal. Chest CTA, CV RRR no m/r/g. Abdominal exam is benign. She does have flank tenderness bilaterally. Labs show WBC 14.7, urinalysis leukocyte esterase positive, trace blood, 3+WBC, 1+RBC and 2+ bacteria.

**Resident:** Using one-minute preceptor model (Get a commitment, Probe for supporting evidence, Teach general rules, Reinforce what was done right, Correct mistakes), how would you teach the student about this case?

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Neher JO et al. A five-step “microskills” model of clinical teaching. Journal of the American Board of Family Practice, 1992;5:419-24.

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## Case-Based Teaching

Much of clinical teaching is rooted in case discussions, so it is imperative that residents feel comfortable with this type of teaching. Clinical and bedside teaching can take place in a variety of settings, and residents must have flexibility to structure their teaching to fit the environment in which they are working.

There are a few useful principles that should be reviewed when designing a curriculum to improve resident teaching skills in the clinical arena (summarized from Irby, 1994):

1. *Anchor Instruction in Cases:* Residents are more motivated to learn and remember materials that are built around cases. This instructional strategy helps learners interpret, reflect upon, and generalize from experiences with patients. Ultimately, the goal of clinical teaching is to relate learner's prior knowledge to the facts of the case and to general principles of medicine.
2. *Actively Involve Learners:* Teachers should engage their learners by asking them lots of questions and by encouraging reflection on medical practice. Questions posed by teachers will help guide the course and structure of student thinking and focus their thoughts on relevant issues, thereby constructing structural frameworks to which they can anchor their learning.
3. *Model Professional Thinking and Action:* Modeling reasoning for students allows learners to see how a more experienced clinician thinks through a case. Teachers should explicitly articulate their knowledge and reasoning to their students in order to help them understand how they approach a problem. Similarly, resident teachers must model competent and compassionate care at the bedside in order to teach students skills in patient communication and professionalism.
4. *Provide Direction and Feedback:* Clinical teachers must coach their teams, which includes establishing clear expectations, directly observing student performance, and providing clear and specific feedback. These actions will enable teachers to identify and correct mistakes in their learners. Teachers can help provide learners with scaffolding by asking directed questions, providing cues through reminders, and offering specific directions for improvement. Teachers must also feel skilled at providing their learners with direct feedback that enables students to improve their performance.
5. *Create a Collaborative Learning Environment:* Because of the social context of clinical learning, it is critical that a supportive environment be created, one in which questions are asked, ideas challenged, and information shared. It is helpful for resident teachers to establish a learning agenda early in the rotation so that learners and the teachers are clear on expectations for the group. As above, resident teachers must be willing to model behavior in self-disclosure and self-assessment so that students understand and learn these skills. A comfortable learning environment is critical to maximize student learning.

Reference:

Irby DM. Three exemplary models of case-based teaching. *Acad Med* 1994. 69: 947-53.

## Bedside Teaching

Bedside teaching remains a critical component of clinical teaching, although the prevalence of this activity has decreased over the past two decades, especially during attending rounds. Bedside teaching often occurs on work rounds, during which residents are often the leaders in these teaching encounters. Housestaff should feel comfortable with this teaching method.

Bedside teaching can be intimidating for new teachers for a variety of reasons. Residents may be concerned about issues of patient privacy and comfort, or they feel that their freedom for discussion is limited in front of a patient. There are potential time constraint issues as well as the fear of losing credibility with the patients for whom they are caring.

Despite these concerns, teaching at the bedside is ideal for teaching physical examination and interpersonal skills. Teachers can either model or observe history taking skills and review pertinent findings with their team. Bedside teacher also provides a perfect setting in which teachers can model skills in professionalism and respect; students often observe their teachers carefully in these settings and observe many details of the approach used by the senior physician in treating and interacting with the patient. Furthermore, studies show that patients almost uniformly enjoy bedside rounds with the team.

Before the resident teacher engages in bedside teaching, there are several steps to consider:

- a. **Preparation.** Learners should understand the goals of the teaching setting, what is expected in the clinical encounter, and how they are expected to behave (bedside etiquette). They should also be instructed to limit their discussions to avoid topics that might be sensitive or frightening to the patient and should avoid medical jargon that may not be understood by the patient.
- b. **Clinical encounter.** The teacher should introduce himself/herself to the patient as well as the group at large and should explain the purpose of the visit; the patient should be reminded that the entire discussion may not apply to him/her. The patient should be encouraged to ask questions whenever clarification is needed. The teacher should elicit and observe skills that pertain to communication, physical examination, interpreting data, developing an action plan, and professionalism. Students should be invited to examine the patient to confirm physical findings; sufficient time should be allotted for learners to appreciate the findings.
- c. **Reflection.** The teacher and the learner(s) should review the clinical encounter after it is completed, assessing the encounter for the goals set out during the preparation phase. Each can be tasked with searching for answers to questions that came up during the encounter for which the answer was not known. This step is critical in teaching learners skills in life-long learning.

There are several general principles provided by Mooradian and her colleagues which are useful to review in preparation for bedside teaching:

1. Obtain informed consent from the patient in advance
2. Explain the purpose of the session to the patient
3. Introduce the team
4. Be courteous
5. Ask learners to demonstrate physical findings
6. Model professionalism
7. Allow the patient to stop the encounter if s/he desires to do so
8. Allow the patient the final word or question

References:

Cox K. Planning bedside teaching. *Med J Aust* 1993. 158: 280-282

Kroenke K, Omori DM, Landry FJ, Lucey CR. Bedside teaching. *South Med J* 1997. 90: 1069-1074.

LaCombe MA. On bedside teaching. *Ann Int Med* 1997. 126: 217-220.

Mooradian NL, Caruso JW, Kane GC. Increasing the time faculty spend at the bedside during teaching rounds. *Acad Med* 2001. 76: 200.

Wang-Cheng RM, Barnas GP, Sigmann P et al. Bedside case presentations: why patients like them but learners don't. *J Gen Int Med* 1989. 4: 284-287.

## **Large-Group Teaching--The Art of Giving a Talk**

A good talk is engaging, with clearly communicated points that the audience can remember.

**Select an Engaging Topic**: choose something that will interest you and your audience.

**Audience**: Know your audience and the format so that you can plan on what level to focus your talk.

- Know your audience's main learning objectives
- Set a positive learning climate
- Engage the audience
- Control of session; you can decide audience interaction

**Focus**: From the beginning, consider your main teaching goal(s) and the time you have allotted.

- Is the talk broad vs. narrow?
- Review vs. update?
- Broad usually better, Update usually better-- but remember your audience

### **Initial Preparation**

Look at textbooks, review articles, do a search of the literature to help you begin to organize your thoughts. Discuss the topic with friends and "experts".

### **Organize your material**

Define clear teaching objectives-- what are your main points? For a 45-60 minute lecture you should have 3-5 major teaching points.

**Title**: Informative or captivating

### **Introduction:**

- Capture your audience's attention and interest with your introduction.
- Do whatever it takes to make the topic clinically and/or personally interesting from the start. Cases, personal experience, humor etc. helpful here.
- Tell why others should be interested in your topic.
- Tell them the basics of what you are going to say: give the audience a roadmap of the talk.
- **Bottom line**: Hook the audience--tell them what you are going to say and why it's important

### **Body of the Talk:**

- All of your talk needs to be organized around two principles of teaching-- summarization and simplification
- Identify 2-4 important subtopics. Tell your audience you are going to say about the subtopics.
- Within each subtopic, have one or two basic learning points -- take home messages.
- **Summarize** these learning points at the end of the discussion of each subtopic. Then return to the roadmap and proceed to the next subtopic.
- Provide strong, cogent take home messages.
- If evidence is conflicting/data difficult, remember to take a stand on how to practice given the confusing information.
- Recapture the audience interest every 10-15 minutes in a lecture (more frequently in smaller groups). You can use humor, a new case, a question for this purpose.
- Don't bog the talk down in 1001 details; each time you do discuss a complex subject, tell why it's important and give the take-home message at the end.
- Try to tell a story and use stories
- DON'T TURN OUT THE LIGHTS!

### **Ending:**

- Abstract out the main points and **summarize** again.
- Remind the audience what you've discussed.

### **Style**

Practice, so that you don't "um" and slow down. Make sure you're comfortable with inflection and voice speed.

Use your hands, and face; make eye contact with a few people.

Try not to pace and fidget.

Reflect confidence: You will know a lot more than most people in the room. You are expert.

Try to control anxiety: Drugs? (Maybe, but don't make your talk day the first time you use them)

- **Know your material**
- **Practice**
- **Get feedback**
- **Give the talk again—good talks get better and easier to give!**

## **Incorporating Humanism into Teaching**

Summarized from Branch and colleagues 2001

Humanism in medicine – “the physician’s attitudes and actions that demonstrate interest in and respect for the patient and that address the patient’s concerns and values”

### Establish a climate of humanism

- Encourage presentations incorporating important psychosocial as well as biomedical information.
- Treat learners with respect, establish an atmosphere of trust and collaboration
- Increase contact with patients during rounds by bringing the team to the bedside. Make sure patients are recognized and included during bedside rounds.
- Get to know learners as persons and address their individual and human needs.

### Role model

- Demonstrate desirable skills or behaviors

Personally attend to the patient’s comfort, ask the patient’s permission, introduce members of the team, model emotional support by touching the patient, ask about patient’s personal lives, their fears/concerns

- Comment on what you have done and allow for reflection

*“One of my most memorable moments as a resident was when I watched a disheveled homeless patient waiting to be seen in the clinic ask an attending for a glass of water. This attending walked out of his way to get the patient a drink from the staff water cooler instead of from the tap. He remarked to me... ”Although I can’t do anything to get him seen sooner, I can at least get him a cool drink of water on a hot day.”*

### Recognize and use seminal events

Giving bad news

Dealing with feelings, concerns or expectations

Focus attention on communication skills or the use of dehumanizing language

*Case: You are on morning work rounds on a post-call day. Your intern presents an admission from the previous evening to the rest of the team, “47 yo AIDS patient admitted with probable PCP”.*

How might you respond to this presentation to establish a more humanistic climate?

*You have just led a very intense discussion with a family regarding withdrawal of support for one of your elderly ICU patients admitted with acidosis and hypotension without a clear source who has progressively deteriorated over the past 36 hours. During this meeting, the family and some team members were crying.*

How might you process this situation to teach humanistic principles?

### Active learning methods

May be more effective than passive role-modeling. Mastery of humanistic care requires practice and reflection.

Practice skills, be observed, receive feedback and reflect on performance

- Recognize a teachable moment or challenging encounter
- Set learning goals
- Assign roles (interviewing the patient, observing, giving feedback after the exercise)
- Observe interaction/intervene only with the learner’s permission
- Feedback – learner should have first opportunity to analyze exercise, followed by specific feedback from other participants, consider additional practice by using a role play
- Reflection – “what did we learn from this?”

*Case: Your team is caring for a difficult and demanding patient with a history of sickle cell disease who is admitted for a painful crisis. Your intern is called by the nursing staff because the patient is demanding to speak with a doctor regarding the mismanagement of her pain. How might you turn this into an active learning experience for your intern?*

Final tips

- Respect time limitations
- Make humanistic approach integral and relevant to patient care
- Focus on skills that are feasible for the learner

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Branch WT, Kern D, Haidet P, et al. Teaching the human dimensions of care in clinical settings. JAMA. 2001;286:1067-74.

## Enhancing Resident Leadership Skills

### Leading a Team—Team Orientation

1. Set goals at the beginning of the rotation. State your goals and ask each team member to state their goals for the rotation. This will clarify expectations and shows your interest in your team members. Explicit goals will also help to establish a learning plan.
2. Clearly state your expectations for learners. Students/interns do not automatically know what is expected of them, as they work with many different residents. Giving your expectations “up front” will lessen future conflicts. Give concrete behavioral expectations. For example, instead of telling the student to “read about your patients”, tell them to “read in Harrison’s about your patient’s main diagnosis and be prepared to discuss it with me on walk rounds.”
3. Establish that students/interns can ask for help. Establish when you want to be called.
4. Clarify days off and schedule.

*Case: You are post-call in August and rounding with your team. You are about to start rounding on Ms. X when the intern informs you that he transferred Ms. X to the ICU at 2am for respiratory distress. You were not informed of the transfer. When you ask the intern about this, he says, “I could handle it. I didn’t want to wake you.”*

- What is your reaction?
- How would you state your expectations for this intern?
- How do you balance intern autonomy with your own need to supervise medical care?

*Case: You are the resident and leading a brand new team in July. Think about what your goals are for the month. Now consider what goals/expectations you have for the rest of the team. How would you translate these goals into specific behaviors that you expect?*

Goals  
Intern

Behaviors

*Third-year medical student*

*Sub-intern*

*Attending*

### Leading a Team--Team Management

1. Catch team members doing something right! Reinforce good behavior with specific feedback (i.e. don't just say "good job" but offer exact feedback—"I really liked the way you made Ms. Jones feel comfortable during the procedure").
2. Establish a positive learning climate and supportive atmosphere.
3. Plan and coordinate team activities. What format does your team prefer for rounds? What do they want to learn about during the month?
4. Address mistakes quickly.

### Leading Effective Work Rounds

1. Seeing patients together has many benefits. It establishes a team identity, it improves patient care (thereby allowing for information to be exchanged and a plan to be made), and it reinforces learning.
2. Set a plan for the day with each patient. Make sure the intern/student have a list of tasks to be completed and that the plan is clear.
3. Be efficient! Work with students/interns to give well-organized, concise presentations. Budget your time so all patients are seen/plans developed.
4. Maintain a positive learning climate.
5. Conduct brief teaching on work rounds. Remember you are teaching by modeling. Avoid lecturing unless you have few patients to be seen. Provide 1-2 brief teaching points.

*Case: You are the ward resident on a busy service in December. You have 5 patients in the ICU and 17 on the floor. You are constantly walk-rounding late in the day, and are not making it to morning report.*

- How can you improve the efficiency of work rounds?
- How can you possibly teach when it is so busy?

### Working with an Attending

1. As the resident, you should have an active role in planning attending rounds.
2. At the beginning of the month, sit down with your attending and review your goals/expectations. Ask your attending what his/her goals/expectations are for you and your team (including students). Set a date with your attending half-way into the rotation to review how the month is going and whether you/team are meeting your goals.
3. Discuss how you'd like to structure attending rounds.
4. Be specific about what you'd like the attending to teach.
5. Clarify when the attending wants to be called regarding patient care issues.
6. Learn from each individual attending—each attending has different skills.

*Case: You are the senior ward resident. Your attending is very nice, but spends all of attending rounds “card-flipping” about patients and asking questions. You never get to any teaching. The rest of the team is frustrated and bored.*

- How would you approach this attending in order to change the format of attending rounds?
- How would you like to format attending rounds?

#### Qualities of Effective Attendings (Irby DM, Academic Medicine)

1. Actively involve learners.
2. Be enthusiastic!
3. Ask questions.
4. Capture the attention of learners and have fun.
5. Go the patient bedside.
6. Connect the case to broader concepts.
7. Meet individual needs.
8. Allow the resident to be the team leader.
9. Balance attending rounds between patient care and teaching.
10. Provide feedback and evaluation.

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## Feedback, Reflection and Evaluation

### Introduction

#### *Definitions*

**Feedback, reflection and evaluation** are three important aspects to teaching and learning that are very different but often confused.

**Feedback** is a word that was first used to describe how electronic devices modify performance based on outcomes to achieve desired goals. Actual outcomes are measured and corrections are made to bring the actual closer to the ideal. Unfortunately, in medicine and business, it has often been interpreted as being synonymous with criticism, and hence giving and receiving feedback are often accompanied by a great deal of discomfort. If one returns to the origins of the concept, it becomes clear that feedback is essential to learning. Teachers who can provide effective feedback are thus providing invaluable assistance to their students. Feedback is also often confused with evaluation. The purpose of feedback is to improve performance, while evaluation's purpose is to judge performance.

**Reflection** is a philosophical term that comes from a yearning to understand the principles of how both the physical world and the human mind work. It has come to mean a deep, serious meditation on experience and the process by which one gains knowledge of oneself. Reflection is another process that is fundamental to teaching and learning, but that has is infrequently discussed as a teaching technique in medicine.

**Evaluation** is a process of determining value or assessing worth. It's purpose, unlike feedback, is not to provide information to improve performance; but rather to deliver summative judgments of performance and to assure that standards are met for certification and advancement.

	<u>When ?</u>	<u>Why?</u>	<u>Content</u>	<u>Targets</u>
Feedback	Immediate	Improve performance Focus on development Correct mistakes	Specific info. Action plan	Task/thought/skill focused
Reflection	Immediate/ Delayed	Focus on professionalism Integration of complexities	Context, meaning	Ethical, psychological interviewing/emotional
Evaluation	Delayed	Summary of performance	Judgment/Ranking Assesses success of action plan	Grading/certification Assuring standards

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## **Feedback**

- Although feedback is generally thought of as essential to learning, clinical teachers often avoid giving feedback and residents and students complain that they do not receive sufficient or appropriate feedback.

*Reflect on feedback in your clinical education.*

*What have been the barriers to your giving and getting effective feedback?*

*What have been elements of effective feedback? Ineffective feedback?*

*What does the “hidden curriculum” tell you about feedback?*

## **General Components of Effective Feedback**

1. Based upon clearly defined and mutually agreed upon goals and expectations.
2. Based on observed actions, decisions, not on hearsay, interpretation of motives, personality assessment or generalizations.
3. Elicits learner’s own thoughts, feelings and insights (self-assessment) before feedback is given.
4. Delivered in a nonjudgmental and unthreatening manner.
5. Frequent (and close to when the behavior was observed) in digestible segments that are not overwhelming.

### **Exercise:**

Brainstorm specific ways that you can assure that you provide effective feedback to your team.

### **Discuss how to give effective feedback in the following situations.**

*Case: On post-call rounds your intern tells you that one of the elderly patients had a little chest pain the night before which she treated with Maalox and valium. You had not heard of the incident. She had not gotten an EKG, and the morning EKG shows ischemia.*

*Case: You are the R2 on a ward team early in the year. You are reviewing the patients with the interns prior to their signing out. You are told by your intern that all his patients' are "tucked". You have just finished scrolling through the labs and know that a cirrhotic patient you had admitted for altered mental status has had a ten-point drop in his hematocrit. When you ask him about this, the intern tells you he is aware of the change, and had ordered a stool guaiac.*

### **Types of feedback:**

Feedback requires close attention and creative intelligence. Good feedback requires a critical analysis of behavior, noticing what concrete elements are contributing to the behavior and helping provide specific suggestions for improvement. Effective feedback also capitalizes on capturing the 'teachable moment'. Combine feedback with other teaching skills (i.e. one-minute preceptor) to reinforce teaching.

#### **Formal sessions:**

Scheduled: Typically at the beginning and midpoints of the rotation to establish goals and to check progress.

- *“What are your goals for this rotation? Are there areas you want to work on?”*
- *“What things do you feel you are doing well? What things do you feel you could be doing better?”*

Post-event sessions for longer, complex discussions, or discussions of other sensitive material.

- *“Tell me what you thought of the encounter? How did it go for you?”*
- *“What things would you do differently next time?”*

Brief ongoing feedback: Day to day corrections and suggestions for how to improve

- *“You asked an open-ended question at the beginning of the interview and got some very important information.”*
- *“Potassium can be very difficult to take orally. When a patient is vomiting, it is best to give it IV.”*

## TIPS

### **Formal sessions:**

- Start rotations with goal setting session
- Set specific goals for team and each individual
- Help convert abstract goals into concrete behaviors
- Schedule a mid-point feedback session
- Think about where and when
- Elicit self-feedback first
- Set a non-threatening, collegial environment
- Solicit feedback on your performance

*Case: You are midmonth in the rotation. Your medical student is wonderful. She is cheerful, cooperative, bright, with excellent clinical judgment and skills. However, she does not always seem comfortable coming up with a plan, and seems hesitant and tentative about committing to her own assessments.*

What feedback comments could you make in a mid-term feedback session with her?

### **Brief, immediate feedback**

- Provide frequent, ongoing and immediate feedback
- Explicitly agree or disagree with learner's opinions/statements
- Give reasons for agreement/disagreement
- Be specific and descriptive in your feedback, include concrete steps for improvement
- Remember positive and negative feedback are important
- "Catch someone getting it right"
- Performance doesn't need to be perfect to be praised
- Be sure that positive feedback is true
- Give negative comments one at a time
- Be collegial and non-judgmental in your comments
- Incorporate your other microskills
- Remember feedback is an important element in your job as a teacher
- Feedback is a gift, not a "put down"

### **Discuss how to give effective feedback in the following situations.**

*Case: You try not to leave the hospital before your interns. You leave many afternoons with your intern telling you that she has only one more note to write and will be leaving shortly after you. You learn from one of your fellow residents that your intern is often there for hours after you have left.*

What tasks do you have before you can give useful feedback? How, when and where would you give this feedback?

*Case: It is close to the end of the month. You get a call from one of the Chief Residents. One of your interns has 8 outstanding dictations.*

How can you give feedback that converts this into a “teachable moment?”

*Case: One of the interns on your team has been a challenge. He has a PhD and worked for several years before returning to clinical medicine. Despite his weaker fund of knowledge when it comes to clinical medicine, he is often challenging your management and delivering lectures immunological receptors. He combines independence and a laissez-faire attitude with aggressive pomposity. One of his patients is an elderly woman with end-stage renal disease who was admitted for a CHF exacerbation and has developed a fever. He assures you that he has examined the patient carefully for signs of infection and postulates polymyalgia rheumatica is the cause of her temperature. When you go in to examine the patient you find that she has an infected IV site in her foot.*

How do you feel?

How would you give feedback to this intern?

Do you incorporate your anger into your feedback to the intern?

How do you work with this intern the rest of the month?

### **Receiving Feedback**

*Case: You have received little feedback since you began your R2 year and aren't sure how you are doing. There have been no terrible patient outcomes or major dysfunctions in team dynamics. You seemed to get along well with your last attendings who have said that you have done a good job, and your interns comment on how much they have enjoyed working with you.*

How will you elicit better feedback?

### **Receiving Feedback TIPS**

- Remember feedback is not criticism. It does not mean that you are a bad resident/doctor or teacher. It is a sign of your teacher's investment in your learning.
- Set your own goals and be diligent about assessing your own success at achieving them.
- If feedback is too general, ask questions to focus on your specific concerns:

*“Did you think my differential diagnoses were adequate?”*

*“Did you feel that I ordered tests appropriately?”*

*“Could we review the pace at which I worked up Mr. P?”*

## **Feedback Summary**

- Clarify expectations
- Use first hand information that focuses on behaviors, not the person.
- Give frequent, immediate and concrete feedback coupled with suggestions for how to improve.
- Think about whether the feedback you want to give is more conducive to a formal session, or immediate, brief interaction.
- Remember effective feedback is a teacher's investment and gift to her students.

## **Reflection**

- The consideration of the meaning, implications or larger context of an experience or action is an important part of psychological, emotional, cognitive and ethical development. Reflecting on the many interesting moments and interactions encountered in medicine can deepen our satisfaction and engagement with what we are doing, and help us recognize the profundity of what we do and may decrease burnout.

*Case: You and your medical student are discussing a diagnostic test with a patient. You ask the patient if it is okay for you to sit on the side of the bed. The patient, in a joking manner, says: "Yes, just so long as you aren't gay, doc." You do not respond to the quip, but sit next to the patient and continue the discussion of the procedure.*

Do you think discussing this moment later with your student or with the team would be useful?

## **TIPS**

- Establish a trusting learning environment for your team
- Look for opportunities to reflect on meaningful and difficult moments.
- Role model reflection—reflect on your behavior and interpretations
- Reflect before and after important interactions involving the human and emotional aspects of care—doctor-patient interactions, deaths, delivering bad news, mistakes, miracle cures.
- Use open-ended questions, encourage discussion.
- Encourage discussion that gets a higher levels of ethical, social, emotional meaning
- Match timing and setting with content of discussion.
- Expect to learn!

## **Evaluation**

- Is often confused with feedback. Evaluation should follow substantial feedback and comment on steps taken towards improvement. Evaluation focuses on assuring that minimal standards for performance are met. Evaluation is largely the job of attendings and program directors, not residents.

*Case: You sit down with your third year student on the last day of the rotation. You list some of the things that she has done well, then turn to the areas where you think she needs to work. You bring up several patients whose past medical history she had not investigated adequately and comment that she needs to be more succinct in her write-ups. You will be recommending that she receive a pass, not honors, grade. She gets angry and says that there is never anytime for her to see the patients and that she considered it great time management and commitment on her part that she would wake patients up at 4am to get a more complete history. She also feels that you have not helped her or understood that she “has to write those long notes for the attending.”*

What went wrong?

How could you have made this a more effective evaluation session?

## **Evaluation Principles**

1. Should be based on previously given feedback, no should contain no surprises.
2. Is a summation of performance during the rotation.
3. Includes positive and negative elements of performance.
4. Includes value judgments and consequences if behavior does not change or is repeated.
5. May include comparative rankings, grading, comparisons with absolute standards or previously agreed upon goals.
6. Documentation of poor performance with specific examples is crucial.

## **TIPS**

- Fostering self-assessment is important
- Balance positive and negative summations
- This not the time for overly detailed criticism
- Do not wait until the end of the month to point out problems
- Refer back to goals, previous feedback

*“ You need to continue working on your efficiency. You improved substantially by keeping a list and learning to prioritize better, but you still need to work on shortening your notes.”*

- If you are responsible for grading, recognize that much of it can be subjective. Follow given criteria, or create your own before hand so this does not devolve into how much you like a person. For example, ask you self to rate their fund of knowledge, clinical judgment and ability to work with the team.
- Consider barriers attaining standards—i.e. it the student's preterm labor interfered with her ability to admit her quota of patients, not her ability or commitment to the rotation.

*Case: Go back to the case of the bright intern who you gave midpoint feedback to. Would you include any evaluation on her midpoint review?*

After your mid-point evaluation, she made an effort to come up with a treatment plan and present it to you. How would you evaluate her now?

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## Handling Problems

Problems arise when performance does not meet expectations. Thus problems are minimized by orienting learners to goals and expectations ahead of time and through ongoing feedback.

When problems are identified, they should be dealt with promptly.

### Assess the problem

- Is it really a problem or a difference in style/bad day?
- If it is a problem, then should seek out additional opinions (interns, former residents, attending, nursing staff) to determine the extent of the problem.
- Ask the student for his/her own assessment of the problem

*It seems to me that you sometimes struggle with putting together a differential diagnosis and plan on your new patients. Why do you think that is?*

*I've noticed that you are often here after the rest of the team has signed out their patients. Why do you think that is? How do you think that I could help you?*

### Diagnose the problem

- Lack of knowledge – either never exposed to a topic or learned previously and forgot
- Lack of skills – student possesses knowledge, but lacks necessary skills

*Example: Student knows that asking a thorough sexual history is important, but hasn't had practice doing so and feels uncomfortable.*

- Behavior – student has the knowledge and skills, but does not perform to expectation. Consider other contributing factors to behavior (e.g. stress at home, family illness, competing responsibilities etc) versus attitude problem (e.g. student does not perceive internal medicine as important to his/her career as neurosurgeon).

### Devise and implement an intervention/action plan

Engage the student in the process formulating the plan for remediation – students are more likely to feel engaged if they participate

Problems due to lack of knowledge or skill can be addressed through education/practice

- Have learner read and present a short summary on rounds (ddx of dyspnea, treatment options for pneumonia)
- Have learner practice a skill (eg presenting succinctly, cardiac examination)

### **Behavioral problems**

It is important to find out the specific cause(s) for the behavior (may not be an attitude problem). If it is primarily an attitude problem, need to clarify expectations.

Confrontation may be appropriate provided it is done directly and openly in a private setting. Some tips for managing conflict:

- Identify and clarify differences

*“It sounds like we disagree on this.”*

*“Let me tell you how I see it and then you tell me whether you disagree”*

- Diffuse anger by not taking things personally.
- Use “I” statements rather than “you” statements that may be perceived as blaming.
- Focus on the issues/behavior, rather than the person.
- Be clear about performance expectations and consequences.
- LISTEN, LISTEN, LISTEN

If behavioral problem is a serious one that demonstrates a lack of professionalism (eg dishonesty, mistreatment of patients, repeated inattention to clinical duties), then should notify clerkship director (medical students) or program director (interns).

Should document serious problems in writing

### Evaluate the effectiveness of the intervention

Arrange to meet with the student at a later time to hear their impressions and give your assessment of how effective your intervention has been and whether additional steps must be taken.

*Case: It is your first day on a new service and you are just getting to know the team and its patients. On morning work rounds, your 3rd year medical student gives a lengthy, disorganized 15 minute patient presentation that causes the team to miss breakfast. In addition, he reports that the lungs are clear and when you examine the patient you hear left sided rales. You are surprised because this is his fifth week on the inpatient wards.*

How would you assess this problem (lack of knowledge, skills or behavioral problem)?

How might you give feedback to the student?

What are some possible approaches to remediation?

### Stress/burnout

Some characteristics (compulsivity, attention to details, selflessness, deep commitment to patients) that make for an excellent doctor may increase susceptibility to the negative effects of stress and increase risk for burnout.

Physicians may suppress personal feelings of anxiety, doubt and inadequacy in an attempt to appear competent. This leads to emotional isolation and impairment further increasing the risk of burnout.

Burnout – syndrome of depersonalization, emotional exhaustion and a sense of low personal accomplishment that leads to decreased effectiveness at work. Is associated with decreased job performance, and reduced job commitment and predicts stress-related health problems and low job satisfaction.

Recent study looking at burnout in residents at Internal Medicine Residency Program at UW (Shanafelt, TD et al. Ann Intern Med. 2002; 136:358-67). 76% of responding residents met criteria for burnout. Compared with non-burned-out residents, burned-out residents were significantly more likely to self-report providing at least one type of suboptimal pt care at least monthly (53% vs. 21%). 50% of burned-out residents reported depressive symptoms; 9% had at-risk alcohol use. Burned-out residents more likely to report career dissatisfaction (41% v 11%).

75% of surveyed residents reported that talking with family members, significant others, and colleagues were important coping strategies.

## Reactions to stress

In early stages of stress, individuals may react by working even harder. They become obsessive, stay late or take work home in an attempt to meet demands placed on them.

As individuals begin to decompensate, they often experience:

- Mood disturbances – depressed or anxious, abrupt mood swings, negative attitudes (frequent c/o about job/patients/staff), low self esteem
- Physical symptoms – tired, HA, sleep disturbed
- Impaired function – poor memory and concentration, difficulty w/ problem-solving and decision-making, poor work performance (more errors/inefficiency)

If left untreated, individuals can experience more severe decompensation and dysfunction

DDx includes depression/substance abuse

*Case :You are working with an intern in February that you knew previously to be bright, enthusiastic and hard-working. Lately during attending rounds he has seemed distracted and uninvolved. This morning he arrives late for work rounds and clearly has not pre-rounded on his patients.*

How would you assess this problem?

How do you foster a high team morale and prevent burnout in yourself and other team members?

*Case: One of your interns is cynical and constantly complaining about the patients on your service at the County Hospital. His negative attitude seems to be bringing the whole team down. You are called to admit an injection drug user with a fever and send your intern down to the ED to evaluate the patient. He reviews the patient with you later and mentions that the patient was complaining of back pain. His Ddx consists of “r/o endocarditis”. When you question him specifically about the back pain, he remarks that he thinks the patient is just seeking narcotics.*

How would you assess this problem?

How might you approach the intern and give him feedback?

## Reducing stress

1. Acknowledge the stresses inherent in medical training and create an environment in which trainees feel supported and cared for.

- Get to know your students/interns as persons (address their individual/human needs)
- Insure trainees have the opportunity to eat meals/attend conferences/attend to personal needs.
- Encourage trainees to have realistic expectations of themselves. Discourage them from staying late to check that lab result/x-ray that can be signed out. If a trainee is too ill to work, make sure they go home.
- Be a role model for your team with respect to setting limits. If you are displaying “superhuman” tendencies, it may be more difficult for them to set limits.
- Insure adequate time out of the hospital by going through the schedule of days off early in the month.

2. Anticipate and process difficult situations that may cause significant stress in the trainee such as mistakes, death of a patient, or an angry or hostile patient.

This not only will facilitate reflection and learning, but also potentially reduce stress and feelings of isolation.

3. Humor is definitely a coping strategy and may help to reduce stress.

### Interventions

- Check-in with the trainee (“I notice that ...Are you feeling ok? How can I help?”)  
Provides support and allows better assessment of the situation
- Insuring that individual gets time out of hospital, dividing work/prioritizing tasks.
- Decrease resistance to seeking help by encouraging them to seek help from the program director/student offices
- Get help if you suspect a more serious problem (discuss w/ chief resident, attending, program director, clerkship director).

### Impaired physician

AMA definition - Physician unable to practice medicine with reasonable skill and safety because of mental illness or excessive use/abuse of drugs, including EtOH.

Current estimates: 15% of residents have problems, at least 3% impaired by chemical dependence.

### **Substance use**

Most often EtOH (8-10% of MDs), also narcotics, sedatives and stimulants

Residents may be at risk due to the severe demands of residency and their access to rx drugs and narcotics

### Warning signs of impairment

#### Personality changes

- Lack of enthusiasm
- Negative attitudes
- Cynical, fault finding remarks
- Sarcastic, complaining antagonistic behavior
- Involvement in staff or administrative battles
- Isolation, mistrust, abandonment of old friends

#### Deterioration in work performance

- Changes in work habits
- Erratic productivity combined with crazy hours
- Changes in handwriting
- Wrong dates, word reversals, dosage errors
- Procedural errors, errors of omission with cover-up
- Complaints from staff, patients, families

#### Changes in personal appearance or behavior

- Looks tired, admits to insomnia
- Eyes don't look right
- Personal hygiene changes
- Tremulous or diaphoretic
- Intermittent restlessness or agitation
- Changes in speech
- Increasingly forgetful
- Depressed
- Anxious, mistrustful

### Intervention strategies

1. Approach your colleague. Comment on specific behaviors that give you concern, and ask for an explanation. Inquire directly if there is a problem.
2. If the individual denies a problem, but you still suspect one, wait for him/her to resume the conversation. If the problem is not brought up again, and you still fear that a problem exists, call a reliable source for advice (can do this confidentially).
3. Based on the above information decide if you still think there is a problem.
4. If you are convinced that your fellow physician (or medical student) has a problem, you must take action.

### Resources

- Chief resident
- Attending
- Program director
- Division Chief or Department Chair (for Attending physician problems)
- Clerkship Director (for medical student problems)
- Institution specific programs (resident or medical student well-being programs)

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