

Effective Clinical Teaching in the Inpatient Setting

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INTRODUCTION

Inpatient physicians at academic medical centers and teaching hospitals face the opportunity and challenge of combining a busy clinical practice with teaching responsibilities. Attendings can serve as powerful role models and expert instructors of inpatient care for trainees, potentially leading to better future performance and greater interest in internal medicine as a career. Trainees who work with the most highly rated clinical instructors have been shown to perform better on standardized examinations and to be more likely to pursue the specialty of their most valued teacher (1, 2). Highly effective clinical teachers share common traits—they are enthusiastic, they actively involve learners in the educational process, and they plan carefully prior to teaching (3).

In this chapter, we will outline the planning strategies, teaching methods, and reflective practices that inpatient attendings or residents can use to teach and lead a team successfully (Table 11.1). With many academic health centers now employing hospitalists, the inpatient attending role is becoming the responsibility of fewer, more highly experienced physicians (4). Nevertheless, the principles described in this chapter apply to all inpatient team leaders. The *planning* step involves jointly setting expectations with team members, establishing a positive learning climate, and planning for instruction. A variety of *teaching methods* are needed to meet the multiple learning needs of the team in a patient-centered environment. *Reflection* is the process of making sense out of experience and is pro-

moted through thoughtful self-evaluation by learners. This chapter will describe how to apply these three steps with an inpatient team.

PLANNING STRATEGIES

The norms of a group are set at the outset, so attendings should take time to clarify expectations for the team and create a positive learning climate at the start of the rotation. The team will function more effectively and efficiently when responsibilities and roles are clear and consistent.

Jointly Set Expectations

Rounds and Patient Care. Defining expectations at the outset can mitigate later confusion about what was expected or whether a learner has satisfactorily met the requirements of the rotation. Specifically, behaviorally focused expectations are better than generalities. The attending could start this discussion with, "I'm going to share with you the day-to-day expectations I have for all of you to help the team run smoothly; let me know if you have other suggestions." Expectations should be addressed regarding rounds, presentations, workload, communications with the attending, and days off.

Structure of Rounds. Define the relative allocation of time devoted to patient care versus didactics or other teaching. For 90-minute attending rounds, the attending might suggest, "I'd like to devote no more than 30 minutes to

TABLE 11.1
STRATEGIES FOR SUCCESSFUL
INPATIENT TEACHING

Planning

- Team planning
 - Set clear expectations and provide a rationale for them.
 - Establish learning goals.
 - Create a positive learning climate.
 - Describe the feedback, evaluation, and grading process.
- Plan for teaching

Teaching Methods

- General principles
 - Be learner-centered.
 - Make the same thing count twice by integrating teaching and feedback with patient care.
- Specific methods
 - Teach at the bedside and actively involve the patient and learners.
 - Target teaching to learner needs using the "One Minute Preceptor" model (Table 11.3).
 - Develop and use teaching scripts to address common inpatient illnesses (Table 11.4).
 - Use clinical reasoning in conference room teaching.
 - Promote pattern recognition for classic presentations.

Reflection

- Encourage learners to self-assess and to reflect on their performance.
- Provide frequent, behaviorally focused feedback.
- Include areas for improvement with feedback.
- Schedule periodic meetings for formal feedback.

updates on the patients on the service, and leave the last hour for didactic teaching or more in-depth discussion of our toughest case of the day. You can expect that I will have pre-rounded on all the patients, so your presentations can be short and focused."

Presentations. Outline the format and length of presentations for attending rounds and work rounds, and the amount of detail to be provided to the attending versus the resident (Table 11.2). For example, for hospitalists, the traditional model of post-call attending rounds, with the attending first learning about new patients when trainees recite detailed oral presentations, may need to be modified (4). Instead, the attending, who has already seen many of the new patients on call, may prefer to focus on specific teaching points about a case, or on certain patients who raise complex management questions. The resident who leads work rounds should also clarify how much information should be presented for each patient. For example, student presentations can be streamlined with advice such as, "Be sure to update your problem list each day, omitting problems that have been resolved," and "You only need to present labs from the past 24 hours, and only those that are abnormal."

Presentations lasting under 5 minutes are desirable both trainees and attendings. Trainees may find debriefer, more targeted presentations to be challenging since they lack the background to identify which information to omit after spending hours with the patient and thick medical record. Learners may be inclined to talk or to guess what the attending wants (5). Instead, presentations should prompt the presenter to identify most pertinent positive and negative data in advance of assessment. So that trainees are not left guessing what the attending will want each post-call presentation, the attending should state at the start of the month, each call day, his/her expectations regarding presentation format. For instance, the attending might say during a call phone conversation with the resident, "It looks like we'll cap tonight with 10 new admissions, so please have each student to be prepared to present a case in no more than 5 minutes, focusing the H & P on the pertinent positives and negatives, and discussing only the main two problems in the assessment and plan."

Number and Complexity of Patients To Be Followed. It is particularly important to define this expectation with students.

Communications with the Attending. Tell the residents when to consult or page the attending (especially with critical changes in patient status or possible Deterioration). Explain how best to communicate with the attending (phone versus pager) and the types of clinical situations that warrant immediate communication (versus wait until rounds). Define regular check-in points throughout the day (e.g., morning rounds with the team and afternoon rounds with the resident), and plan for how often when the attending will be involved with new admissions.

TABLE 11.2
GUIDELINES FOR INPATIENT ORAL
PRESENTATIONS

- No more than 5 minutes long
- Focus on pertinent positives and negatives—the data that support the differential diagnosis
 - Chief complaint
 - HPI: chronologic, begins with prior medical evaluation, treatment of current problem (if relevant), then current symptoms, then pertinent positive and negative review of systems
 - Medical history: major or relevant medical problems
 - Medications: list only without doses
 - Allergies
 - Social history, family history if relevant
 - Exam: vital signs, general appearance, pertinent positive and negatives
 - Laboratory data: abnormal values, pertinent normal values
 - Assessment: differential diagnosis, linking findings to the most likely diagnoses
 - Plan for each major problem

Adapted from McGee SR, Irby DM. Teaching in the outpatient setting. *J Gen Intern Med* 2001;16:308–314.

Days Off. Describe the coverage system for team members on days off. For continuity of patient care, it is optimal to have some team members in house every day, by staggering the days off among the team members.

Establish Learning Goals

At the start of the rotation, discuss individual and group learning goals. The attending can initiate this discussion by saying, "I'd like to learn a bit about your interests and goals, so that we can make this month as valuable as possible." Housestaff and students may have initial trouble identifying learning goals—"I'll learn about whatever you want to teach"—but the attending can help team members identify types of learning opportunities in the inpatient setting. For example:

- Clinical skills: physical diagnosis, physical exam of ICU patients, functional assessment of elderly patients
- Diseases and symptoms: evaluation of rash, approach to acute chest pain
- Evidence-based use of diagnostic testing
- End-of-life care
- Role of the physician in the hospital: time management and prioritization, teamwork with ancillary health providers, discharge planning

Create a Positive Learning Climate

The first attending rounds begin with introductions, including interests and goals. In this session, the attending seeks to establish a learning climate that is participatory and respectful of learners at all levels. He or she signals that the team will collaborate in patient care and in the education of one another. He or she role models the enthusiasm, humor, and personal commitment that will support the team's education, motivate performance, and promote teamwork. By inviting questions and suggestions from all team members, the attending also fosters critical thinking and sets the stage for interactive learning, trying to avoid a passive climate in which the attending does most of the talking.

Explain the Process for Feedback, Evaluation, and Grading

Learners should be alerted to the feedback and evaluation process at the start of the rotation. It is important to set a schedule for feedback so that learners will know when to expect feedback and recognize it when they are receiving it. For instance, students will want to know when they will receive feedback on their new patient presentations—immediately after the presentation, later that day, or the next day away from the whole team. The attending might say, "I will plan to give you feedback on your new patient presentations on the post-call day; and if I haven't given

you feedback, it's your job to remind me by the end of the day."

The first attending rounds is also a good opportunity to set a schedule for the three key feedback meetings of the rotation—a first meeting to set expectations and discuss learning goals, a mid-rotation meeting for feedback on progress to date and to decide on priorities for the remainder of the rotation, and a final meeting at the end of the rotation to discuss the evaluation.

For evaluation, the attending should define the attending role: what form or procedure is used, and when it will occur, particularly for students who may be graded on the experience. Students should also be informed of others who may provide input into their final grade.

Plan for Teaching

Attending rounds teaching by necessity is a combination of prepared material and improvised discussion of patients. Attendings who only present prepared didactic material may be perceived as inflexible, and—if their material is only peripherally related to patient care—irrelevant. Alternatively, attending rounds that are focused solely on patient discussions may seem like a disorganized repetition of work rounds. Effective clinical teachers choose one of a number of planning strategies (and often make this choice explicit to the team at the orientation):

- Seeing patients before rounds to expedite presentations and allow for more teaching time
- Reading and preparing handouts before rounds
- Checking in with the resident the day or night before to learn about new patients and solicit topics of interest to the team

Work rounds are the main format for resident teaching and the critical time for most patient care decision-making. To plan for work rounds, the resident should review the patient list each night to identify three to five relevant topics (diagnoses, test results, responses to treatments) to address as teaching points on work rounds the next day. Writing these topics on the patient data cards or in the handheld patient log will remind the resident about these teaching points during discussion of the corresponding patient.

TEACHING METHODS

Highly rated clinical teachers share common characteristics that make their instructional style effective and well received. They are *enthusiastic* about their work and teaching. Inpatient attendings, and hospitalists in particular, have the opportunity to model enthusiasm for inpatient generalism, distinguishing it from ambulatory and subspecialty care. For many housestaff, the presence of dedicated inpatient attendings validates the many months they spend on

inpatient rotations by presenting it as a viable and exciting career option. *Flexibility* is a key skill used by effective teachers to adapt their content and teaching style to learners. For instance, a flexible attending will recognize that a post-call intern may not be inclined to generate a long differential diagnosis for chronic abdominal pain, preferring to focus on "what tests do I need to order today." Effective clinical teachers *embed their teaching in the context of cases*, helping learners to retain more information. A particularly powerful learning tool is comparing and contrasting. The attending can stimulate analytic comparisons with questions like, "How does the cardiac exam in this case of shortness of breath differ from the one in the patient we admitted last week with congestive heart failure?" and "What are the key features of each patient's illness?"

Teach at the Bedside and Actively Involve the Patient and Learners

The traditional model of bedside teaching involves the attending shepherding the entire team to the bedside to demonstrate or teach one aspect of physical examination. This process can be quite time-consuming. It can also be difficult to involve all learners actively with one finding or exam technique, often relegating interns or students to the back of the room while others auscultate a murmur. Because many inpatient attendings now aim to see patients on the day of admission, traditional post-call bedside rounds may not synchronize with clinical events, and patient findings may even have resolved.

Attendings who periodically join the team's work rounds (e.g., post call or on the resident's day off) can teach at the bedside while conducting real-time patient care. However, the frequency of such participation in rounds must be carefully planned to maintain the balance between housestaff autonomy and supervision, and the team should be notified in advance of attending participation.

A practical way to implement bedside teaching during the attending's own walk rounds is for the attending to periodically bring one or two learners, particularly students. With the first patient, the learners can observe the attending doing a focused interview and exam. The attending should prepare the learner in advance for what he or she will model at the bedside (6). For example, "I'm going to discuss code status with this patient; watch how the patient responds to my questions," or "My plan is to discuss the risks and benefits of a biopsy versus empiric treatment; see how well you think the patient understands these options." This process can be enhanced by debriefing the learner afterward about general strategies used to address similar problems, or principles the case illustrates. With the next patient, the learner can take the lead, allowing the attending to observe and provide feedback.

For the resident leading work rounds, a major teaching method used at the bedside or in the hallway is *questioning*:

asking interns and students to interpret findings from their assessment, or suggest a management plan. In starting with the junior students and working up to the seniors, everyone is allowed to participate. Questions should be designed to stimulate critical thinking ("How would these two findings together?") rather than closed questions ("What is the most common cause of...? What is the initial management?"). The other fundamental form of teaching is bedside teaching of clinical skills, via modeling of appropriate interaction with patients and verification of clinical findings. The resident should keep in mind that a sloppy bedside technique, such as a superficial examination through the patient's gown, while time-efficient, sends a powerful implicit (and unhelpful) message to learners.

Target Teaching to Learner Needs Using "One Minute Preceptor" for Case Presentations

For daily case presentations, the "One Minute Preceptor" model (Table 11.3) is a useful format that actively involves the learner and incorporates immediate feedback. Developed for the ambulatory setting, it can be adapted to hospital teaching. After a learner presents patient data, the model suggests an alternative to the meandering discussion of a broad differential diagnosis. Instead, the One Minute Preceptor asks focused questions that help "diagnose" both the patient *and* the learner. "What do you think is going on with this patient?" "What do you want to do for the patient? What level of care?" "What is your conclusion?" Based on the answers to these questions, the attending teaches a general point, provides feedback, and recommends improvements.

Learners should be advised in advance whether patient presentations will occur in the hallway or at the bedside. Trainees often prefer conference room or hallway presentations, because bedside presentations may seem intimidating and time-consuming. Bedside presentations nonetheless have advantages: patients may enjoy the attention and information, and bedside presentations provide some role modeling of bedside care (8). A reasonable compromise can be achieved by selecting a few of the most clinically active patients with easily demonstrated physical findings for bedside presentation.

Develop and Use Teaching Scripts to Address Common Inpatient Illnesses

Effective clinical teachers have teaching scripts for common and/or important clinical symptoms and presentations. A teaching script is an outline that includes the goal of instruction on a given topic, key teaching points and teaching methods, and learners' typical conceptions and challenges in mastering the topic (Table 11.4). An inpatient at

TABLE 11.3**THE ONE MINUTE PRECEPTOR—5 EASY STEPS**

One minute preceptor steps	Example
The learner presents a case.	A 40-year-old woman with 3 days of shortness of breath and pleuritic chest pain.
1. Get a commitment: What do you think is going on with the patient?	"What do you think is going on with this woman?"
2. Probe for supporting evidence: What led you to that diagnosis?	"What led you to think of PE in this case?"
3. Teach general rules.	"When clinical suspicion of PE is high, heparin should be started prior to obtaining an imaging study."
4. Reinforce what is done well: positive feedback.	"You did a nice job eliciting the potential risk factors for PE."
5. Correct errors.	"A normal oxygen saturation does not rule out PE, particularly in a previously healthy patient without underlying cardiopulmonary disease."

From Furney SL, Orsini AN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. Teaching the one-minute receptor. A randomized controlled trial. *J Gen Intern Med* 2001;16:620–624.

might do well to develop a "toolbox" of 10 to 20 teaching scripts for the most common inpatient symptoms and diagnoses.

Teach Clinical Reasoning in Conference Room Rounds

The explosion of information related to inpatient medicine means that trainees can no longer be expected to have memorized all of the diagnostic criteria and diagnostic steps for every patient presentation. More important than sharing factual knowledge is facilitating the opportunity for critical thinking and self-directed learning. The attending can model critical thinking with every admission. What pertinent information from the history and physical examination led to this diagnostic hypothesis? How were tests interpreted, and how accurate are the tests that were obtained? Although every attending will have his or her

TABLE 11.4**A TEACHING SCRIPT FOR THIRD-YEAR MEDICAL STUDENTS: GI BLEED**

- **Goals for instruction:** understand the differential diagnosis and management of a patient with GI bleed
- **Key teaching points:** distinguishing upper from lower GI bleed, identifying the major causes of GI bleed, initiating a diagnostic workup, and stabilizing the patient
- **Teaching methods:** interactive, based on case admitted to the team
- **Knowledge of learners' typical conceptions of and difficulties in mastering specific content:** students typically have difficulty using clues from the history to distinguish causes of GI bleeding, and integrating information to risk-stratify the severity of the bleed

From Irby DM. Three exemplary models of case-based teaching. *Acad Med* 1994;69:947–953.

own style and technique, the most effective inpatient clinical teachers have been shown to use the following principles to promote active learning (10):

First, instruction should be *anchored in clinical cases*. Learner interest and retention will be highest when material is presented in the context of a fascinating or compelling case. The inpatient setting, with the constant stream of new patients, high acuity, and immediately available diagnostic information, provides a rich opportunity for case-based instruction. Adapting teaching scripts can be a very useful strategy here.

Second, *actively involve the learners*. In the conference room, ask each team member to read about a portion of a case (a lab value, physical finding, or item on the differential diagnosis) in advance of the next day's attending rounds. At the bedside, rather than demonstrating a physical finding on a new admission, ask the intern or student to model the exam for the group, and then solicit suggestions from other group members.

Third, *model professional thinking and action*. Although the focus of inpatient teaching is often the didactic attending rounds presentations, much of the teaching and learning occurs in the real-time management of patients. Some of the best teaching comes when the attending talks through a clinical case, sharing the clinical thought process and modeling inpatient expertise. The learner will also then see how the attending deals with uncertainty—how he or she works through different diagnostic possibilities, resolves ambiguous test results, and explains clinical situations to patients and families.

Promoting pattern recognition. Something that looks, sounds, and behaves like your Aunt Minnie is likely to be your Aunt Minnie—there is little need to systematically consider other possibilities (11). In the inpatient setting, where disease often presents in fulminant, dramatic fashion, this teaching principle can be used to highlight

classic cases. Instead of asking learners for an extensive case presentation, attendings can request a presentation of the patient's identifying information, chief complaints, or reasons for hospitalization, followed by the working diagnosis. The discussion would then focus on the confirming and disconfirming findings and data.

For example, consider the case of a patient with metastatic cancer who presents with abdominal complaints, altered mental status, dehydration, and worsened bone pain—all hallmarks of hypercalcemia of malignancy (see Chapter 92). Rather than an analytic discussion of differential diagnosis, this method focuses on those key features that learners will remember vividly. Of course, experienced clinicians also expedite their patient assessments by relying on their memory of prototypical case examples, so this method has the additional advantage of introducing trainees to this technique.

REFLECTION

Promoting Reflection in Learners

To encourage self-improvement among trainees, the attending should promote self-assessment and reflection (12). Feedback and evaluation meetings should generally begin with, "I'd like to start by hearing how you think you're doing on the rotation." Rather than telling learners how they've done, or worse yet having them find out the attending's impressions when they read their written evaluation months later, the goal is to create an ongoing dialogue. Although trainees may be reluctant to self-assess, they will feel increasingly comfortable if the attending creates an atmosphere that is collegial and nonjudgmental.

A positive, reflective learning climate is also fostered by allowing for the admission of errors and uncertainty. The attending can model the way in which he or she handles personal limitations—talking at attending rounds about any mistakes that occur in patient management, sharing how to fill in knowledge gaps, and inviting the team to analyze cases with poor outcomes.

To encourage reflection, periodically ask learners to identify one thing they learned from each patient they discharged in the prior week. This strategy is known as "Learning Rounds" (13). It can also be a useful reminder to reflect upon patients who have died, offering trainees the opportunity to learn from deaths on the service and process their emotional reactions to terminal illness (see Chapter 19) (14).

Feedback

Trainees consistently want more feedback and complain that they have not received enough. Feedback provides learners with information about their performance for the purpose of improvement. The attending and resident should create an atmosphere that promotes feedback with

careful planning. Residents in particular may not realize that giving feedback is a critical component of teaching. Key steps for effective feedback include the following:

- **Set the expectation for feedback** at the start of the rotation. Explicitly state, "Feedback is a priority, and it will be given on a daily basis, with more in-depth feedback midway through the rotation and at the end." Also state an openness to receiving (as well as giving) feedback by soliciting feedback: "I'd like to hear how you think I'm doing, teaching at attending rounds, and what I could do to make that time even more useful for you."
- **Immediate feedback** on a daily basis is ideal after a presentation, reading a note, or observing a patient encounter. Within 5 minutes, give the learner feedback to reinforce a specific behavior and make a suggestion for improvement.
- The feedback should be *behaviorally focused*—a description of the specific action performed ("The way you followed up on the history of alcohol use by quantifying the amount the patient drinks was helpful in understanding the potential impact of alcohol abuse on the clinical picture" rather than generalizing with adjectives such as "good history" that do not reinforce specific behavior).
- Feedback should be *based on direct observation* whenever possible. Because residents conduct daily ward

TABLE 11.5

GIVING CONSTRUCTIVE FEEDBACK AND MAKING RECOMMENDATIONS FOR IMPROVEMENT

- **Ask the learner to self-assess.** Questions like "How did you feel about your code discussion with the patient?" encourage reflection and often prompt the learner to articulate strengths shared by the attending.
- **Focus on behaviors, not the person.** Instead of saying "Your presentation style is too slow," feedback could be phrased as "Identifying the pertinent positives and negatives in this physical exam, you can omit the other parts of the exam (neurological and skin, to shorten your presentation.)"
- **Label the feedback "constructive" instead of "negative."** Highly skilled trainees may not have any negative aspects to their performance, but all clinicians at any level of training need improvements with guidance.
- **Suggest a plan for improvement.** Critical feedback is readily accepted if it is made as a recommendation for improvement and phrased in the future tense rather than as a reprimand. For example, "Next time you encounter a patient like this, I have found it helpful to do . . ." This phrase feeds feedback into teaching.
- **Use the feedback sandwich to give frequent feedback.** This routinely includes reinforcing comments and a suggestion for improvement. By making constructive comments at the start of your feedback, you help learners to expect a useful session with praise.

TABLE 11.6 GIVING FEEDBACK BASED ON LIMITED INFORMATION

Take the following steps with the learner:

1. Describe the information you received tentatively and avoid drawing conclusions.
"I heard from Mrs. Jones' daughter that she was frustrated that she wasn't told that her mother was being discharged today, and she was worried it might be too soon for her mom to leave the hospital."
2. Invite joint interpretation of the information.
"Can you tell me what happened from your perspective? Why do you think her daughter was upset?"
3. Identify areas for positive feedback.
"You're managing a large service very well, with great attention to detail for each patient."
4. Identify areas of disagreement and develop a plan to collect information to determine if there is really a problem.
"I understand that you had asked Mrs. Jones' daughter to relay the plans to the family. However, with major changes in the care plan, it's important to make sure the primary spokesperson for the family is fully informed. I have a few suggestions for how you can keep patients and families aware of the plans you're making throughout the day so that they aren't caught by surprise. How about if we start by going to Mrs. Jones' room now and meeting with the family together?"

Gordon MJ. Cutting the Gordian knot: a two-part approach to the evaluation and professional development of residents. *Acad Med* 1995;2:876-880.

with interns and students, residents are ideally situated to observe the team members' clinical skills and critical thinking, following each learner's progress over time. Attendings often hear about and discuss patients in a conference room, and then infer a trainee's history and physical examination skills from the way that findings are presented. By directly observing their interaction with the patient, the resident and attending learn how the information was obtained and can give specific feedback in real time.

- **Frequent feedback** will increase the effectiveness by allowing trainees to quickly modify their behavior before the next observation.
- **Establish a schedule for more formal feedback.** Schedule periodic (e.g., every two weeks or midway through a rotation) longer meetings to give more detailed feedback that serves as a summary of the work to date and an opportunity to set future learning goals. Focus feedback on key objectives of the clerkship or rotation, as well as general areas of inpatient performance. The final feedback meeting doubles as an evaluation of the rotation and feedback for upcoming rotations.
- **The feedback sandwich** is a time-honored format to ensure balanced inclusion of both positive and constructive feedback—begin with positive and reinforcing comments, follow with correction of any errors and sugges-

tions for improvement, and end with praise. It has its place, but effective teachers also find opportunities for unambiguous reinforcing and, when needed, constructive feedback to their trainees (15). Many teachers find it uncomfortable to give constructive feedback. Teachers may feel guilty, or worry that the negative feedback may generate more work in dealing with learner resentment. Steps to make the process of constructive feedback more routine are described in Table 11.5.

- Another challenge confronted by teachers is learning of a trainee's problems second-hand—from another team member, nurse, patient, or family member. The attending may be tempted to dismiss the situation because he or she didn't directly witness it or because it will be uncomfortable to address, thereby missing a key learning moment. The challenge is to use the concern as an opportunity for teaching and feedback without seeming to take sides or misinterpret limited information (Table 11.6).

CONCLUSIONS

The successful inpatient team leader, whether attending or resident, provides a carefully planned experience infused with enthusiasm and active learning. Clarification of expectations at the outset establishes a fair and respectful team dynamic. Highly effective inpatient teaching methods promote critical thinking through bedside interaction and feedback, carefully worded probing questions, and teaching scripts. Self-assessment is a crucial skill that the attending and resident can instill by providing frequent feedback and ensuring that learners reflect on their own performance.

KEY POINTS

- The inpatient attending should set clear expectations with the team at the start of the rotation regarding patient care, learning, and feedback.
- Teaching methods on the inpatient wards should stimulate critical thinking and actively involve learners.
- The attending can promote reflection among learners by prompting self-assessment and by providing frequent, behaviorally focused feedback.

REFERENCES

1. Griffith CH, 3rd, Georgesen JC, Wilson JF. Specialty choices of students who actually have choices: the influence of excellent clinical teachers. *Acad Med* 2000;75:278-282.
2. Griffith CH, 3rd, Georgesen JC, Wilson JF. Six-year documentation of the association between excellent clinical teaching and improved students' examination performances. *Acad Med* 2000;75:S62-64.
3. Irby DM, Ramsey PG, Gillmore GM, Schaad D. Characteristics of effective clinical teachers of ambulatory care medicine. *Acad Med* 1991;66:54-55.

General Issues in Hospital Medicine

r RM. Implications of the hospitalist model for education. *Acad Med* 2001;76:324-330.

LA. Learning oral presentation skills: a rhetorical and pedagogical and professional implications. *J Gen Intern Med* 2001;16:308-314.

M. Teaching in the outpatient clinic. *Practical Med* 1997;12 (Suppl 2):S34-40.

IN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. The 1-minute preceptor. A randomized controlled trial. *Acad Med* 2001;16:620-624.

Barnas GP, Sigman P, Riendl PA, Young MJ. Hospitalist attendings: Why patients like them but learners don't. *Acad Med* 1989;4:284-287.

Attending physicians make instructional decisions during teaching rounds. *Acad Med* 1992;67:630-638.

emplary models of case-based teaching. *Acad Med* 1993;68:953.

Blatt SD, Fuller PG, Weinberger HL. The art of teaching or Aunt Minnie? *Arch Pediatr Adolesc Med* 1994;148:1000-1004.

Kranjacevic A. Feedback and reflection: teaching in clinical settings. *Acad Med* 2002;77:1185-1188.

13. Arseneau R. Exit rounds: a reflection exercise. *Acad Med* 1997;72:684-687.
14. Wear D. "Face-to-face with it": medical students' narratives about their end-of-life education. *Acad Med* 2002;77:271-277.
15. Ende J. Feedback in clinical medical education. *JAMA* 1983;250:777-781.
16. Gordon MJ. Cutting the Gordian knot: a two-part approach to evaluation and professional development of residents. *Acad Med* 1997;72:876-880.

ADDITIONAL READING

- Ende J. What if Osler were one of us? Inpatient teaching today. *J Intern Med* 1997;242(Suppl 2):S41-S48.
- Hauer KE, Wachter RM, McCulloch CE, Woo GA, Auerbach AD. Effects of hospitalist attending physicians on trainee satisfaction with teaching and with internal medicine rotations. *Arch Intern Med* 2004;164:1866-1871.
- Kroenke K. Attending rounds: guidelines for teaching on the ward. *Gen Intern Med* 1992;7:68-75.

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