

## On Bedside Teaching

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Actual teaching at the bedside during attending rounds, with emphasis on history taking and physical diagnosis, has declined from an incidence of 75% in the 1960s to an incidence of less than 16% today. Profound advances in technology, in imaging, and in laboratory testing and our fascination for these aspects of patient care, account for part of this decline, but faculty must also assume responsibility for the present lack of bedside teaching. If we are to reverse this trend, we will need to realize the barriers to bedside teaching, both real and imagined, and overcome them. And if we are to become effective bedside teachers, as were our mentors, we will need to sharpen our own physical diagnostic skills. We will need to learn how to be gentle with students and housestaff, how to better communicate with patients, and how to teach ethics and professionalism with the patient at hand.

*Ann Intern Med.* 1997;126:217-220.

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Some time ago, when visiting a great university medical center in the northeastern United States, I asked the faculty whether the teaching of clinical medicine at their institution was done at the bedside.

The umbrage was palpable.

All of their teaching was at the bedside, I was informed. They taught in the British tradition. Wouldn't have it any other way, they nodded in unison. And so on.

The following morning I was led by the chief resident through a labyrinth of buildings and corridors to a conference room full of students and housestaff. The chief resident politely introduced the nervous young student who was to present "the case" that morning. She in turn promptly began to recite the patient's history.

"Could we go to the bedside?" I asked.

"Of course," said the chief resident, leading the group out into the corridor. There we stopped, and the student, dodging carts conveying breakfasts and pharmaceuticals, once again began her presentation. I interrupted a second time.

"I meant, the actual bedside. . ."

"Oh, sure," said the chief resident, and promptly led us down long corridors to the patient's room. They stopped at the door for what might have been a "door-jamb presentation" had I not continued on into the room, introduced myself to the patient and

his family, and motioned for the students to join me.

It seemed to be an utterly foreign experience for them. If I could not read their minds, I could certainly read the concerns in their faces. *The family would be asked to leave, wouldn't they? We certainly wouldn't discuss the patient's social history in front of him, would we? Will he embarrass me in front of all these people?*

We circled the bedside. There were 17 of us all together, as I remember. The student-presenter stood just opposite me on the other side of the bed. I motioned for her to continue. Flustered, she pulled out a stack of index cards and began to read. Gently I reached across the bed, took the cards from her, and said,

"You really don't need these. Tell me what you remember, just from memory." I caught her eyes with mine, smiled, and nodded. I could see her relax a bit. She began.

Ninety minutes later we finished with our teaching session. There had been the Terry nails, the spider angiomas, the conjunctival icterus. The students had spotted those right away, gotten them easily. The deep booming ventricular gallop, in a cadence you could set your watch to, came a bit tougher. But no one seemed to bluff. Each listened until that sound was fixed correctly. They were having fun by that time, no longer threatened. They pored over the hyperpigmented palmar creases, accented like major highways coursing across a road map, showing the way. Someone volunteered to check for asterixis, another for fetor hepaticus, and a third gave us some biochemistry. A fourth confidently reviewed the genetics of hemochromatosis.

In the end, there were diagrams and pathways drawn on the undersides of Kleenex boxes, on the palms of several hands, and even, we'll confess, on the bed sheets. The patient was beaming, his family effusive in their gratitude. The students didn't want to leave.

Out in the corridor, as we headed toward the next "case," the chief resident turned to me and shyly asked, "Sir, is that the way they did it in the old days?"

Well, yes, it was.

In the old days, 30 years ago, 75% of teaching was at the bedside (1). That was just the way we did

it. By 1978, that figure had decreased to 16% (2). By all estimates, it is even lower today.

Now at this point, everyone will hasten to add that although that may be true nationwide, at *their* institution, bedside teaching is the rule. But when you actually look for it, when you ask the housestaff, who are still delightfully ingenuous, you find that most "bedside" teaching is merely "corridor" teaching, or "door-jamb" teaching, or even simply patient-centered teaching in a conference room.

Why is this so?

Well, we could blame the housestaff. That's easy. And they are in some measure culpable. They are fascinated with technology these days, want to review the imaging and laboratory analyses, want to have fed to them long lists of differential diagnoses meticulously drawn on the blackboard. They are used to the doughnuts and coffee, the comfort of sitting around a conference table, the cloak of early morning semiconsciousness.

But much of the blame rests with us. For faculty, the lecture form of teaching is what we know best, and, in many cases, all we know. And besides, in the safety of the conference room, we can be in control.

There we may shift the focus, guide the discussion, and channel the thinking into our own special areas of expertise. There will be no patient and no family in attendance to ask the embarrassing question that forces us to say, "I don't know."

As well, there is the professor's fear of the unknown, of medical problems outside one's own subspecialty, of an inability to discuss ad infinitum an obscure disease entity that one has not been able to read about the night before. And there is the faculty's discomfiture with physical diagnosis.

We create imagined barriers to bedside teaching: that to discuss the social history in front of patient and family is an invasion of privacy and that the family's presence is itself an impediment to bedside teaching. But how can a patient, who has given us the social history, be embarrassed by it if sensitive issues are handled with discretion? And, in these days, when families are convinced that physicians no longer care for patients, would a family really object to their loved one becoming a focus for teaching? There is the ready excuse that testing and imaging necessarily absent the patient from a session of bedside teaching. That is easily overcome. Have the housestaff make certain beforehand that off-ward testing will not conflict with your bedside rounds. Enlist the aid of the nursing service that will ensure the availability of your patients, especially if you are thoughtful enough to invite nurses to attend your rounds with you. Finally, inform the patients that you will be coming by at the appointed hour.

Patients, who enjoy this sort of attention im-

mensely, will be perfectly certain they are available when you come on rounds.

Acquired skills in history taking and in physical diagnosis are the obvious benefits of bedside teaching. Clinical ethics can best be taught there (3). But there are other, less apparent fruits of this endeavor. At the bedside, one is discouraged from using medical jargon. And in this era in which housestaff too often refer to patients as "dirt balls, train wrecks, last night's hits, and gomers," as though such phrases were elevated prose, pejoratives are discouraged. Housestaff learn not to sit during this patient encounter, that this is bad manners, and that, most important of all, one never sits on the patient's bed, certainly, at least, without permission. One does not call the patient by his or her first name. One begins to learn respect for the patient. At the bedside, the housestaff begin to see disease as an illness happening to a human being. In other words, one learns to be professional. And one learns communication.

Perhaps most important of all, bedside teaching begins to foster another wonderful link with the past. The housestaff watch you as carefully as does a child his parent, watch you attend to the patient, watch you observe; they catch your powers of diagnosis, the respect you hold for this other human being; they feel your attitude, your caring. The students witness your own dignity, and the love you have for medicine, and for teaching them. They link with you, and bond. And mentoring begins.

Such teaching encounters can be great fun. Not long ago, the housestaff presented me with an "unknown rheumatic heart." Wanting to show the students how I might proceed to a diagnosis and still have fun with them at the same time, I told them I would examine the patient only through observation and with my hands. (My courage came from noting that the young woman had a pronounced malar flush, cold fingers and hands, and a rather evident right ventricular lift, visible even through her hospital gown.) I had them feel the lift and the pronounced pulmonic closure, reached for my stethoscope while pointing to the patient's second left interspace, told my students that I would bet if we listened there, we'd hear a loud, snapping S-2-P, and maybe even a Graham Steell murmur. But without listening, I repocketed my stethoscope and went on palpating. Finding the diastolic apical thrill (and much relieved by the discovery), I reminded them of the purring of cats, had each of them lay a hand at the apex, and made certain each of them appreciated the finding.

"I'll bet there's a great mitral rumble right there," I said, reaching for my stethoscope once again, then declining to listen for a second time. And although I couldn't feel the opening snap, I

pointed to where it might be, teasing the students with my stethoscope a third time. At this point, the young lady next to me could no longer contain herself. Grabbing her stethoscope, she slapped its diaphragm on the patient's cardiac apex, looking up at me apologetically.

"I just couldn't wait any longer," she explained.

How do patients react to teaching at the bedside? They love it. They love the attention, revel in the bedside repartee, and feel finally that physicians are interested in them and are communicating with them. Finally, they are able to ask questions of physicians who do not seem rushed to leave. At bedside, the patient learns the chief secondary purpose of your institution, that of teaching students. They, the patients, become participants in this and no longer feel like laboratory animals caged for student experimentation. Their fears are addressed, their anxieties are allayed, they learn more about their illnesses, and, if you subscribe to psychoneuroimmunology, healing begins.

Bedside teaching is about as intuitively obvious as is any other kind of teaching. Which means that it is deceptively difficult, perhaps the most difficult sort of teaching of all. You want your students to learn, after all, and they will not learn if they are full of fear and trepidation, anxiously squirming and biting their lips, causing their pagers to go off, wanting to escape, wishing to avoid the torture of the adversarial goading that too often substitutes for bedside teaching. No one can learn under these circumstances. And the faculty member who so conducts rounds will find rapidly dwindling numbers of students at the bedside.

There is homework to do for this bedside teaching endeavor, and there are rules to follow. The bedside teacher had better be proficient in history taking and be a quintessential physical diagnostician. You have to learn these skills all over again. Or for the first time. And you have to work at it. Begin with Schneiderman's excellent annotated bibliography on physical examination and interviewing (4). Review the recent work on the teaching of physical diagnosis and note particularly that didactic sessions without a patient as the focus do not seem to work well (5, 6). Have your housestaff organize weekly "physical diagnosis rounds" and attend the rounds with them. Convince yourself of the utility and accuracy of bedside diagnosis (7-12). Consult the best texts on the subject (13-20). Use your echo laboratory as a great resource for finding patients with intriguing murmurs. Finally, broaden your horizons—"bedside" does not imply only an in-patient hospital setting. The outpatient clinic and the nursing home are great places to conduct bedside teaching (21, 22).

The bedside teacher needs firm grounding in ba-

sic science, although not exhaustively so. These days, that means molecular biology, among other things. Learn some. Learn at least enough to know which questions to ask. Your housestaff will teach you the rest. Don't be embarrassed by their teaching. You will find after all that learning does go both ways.

And if you are visiting another program and plan to teach at the bedside and there is a single case of hemochromatosis, or bacterial endocarditis, or Wegener granulomatosis anywhere in that institution, rest assured that you will see it. Be prepared.

Prepare your new housestaff team as well. Before you go in to see your first patient with them at the bedside, set some ground rules. Inform the housestaff that any theoretical discussion of differential diagnosis, diagnostic testing, and pathophysiology carried on at the bedside must always be prefaced by an understanding with the patient at hand that such discussions are for teaching only and do not necessarily pertain to the patient's situation and that the patient is free to interrupt the discussion and ask questions at any time. Any discussions potentially frightening to the patient and any sensitive issues can be discussed later.

When entering the patient's room with your housestaff team, always introduce yourself to the patient and, after that, introduce your group at large, emphasize that this is a teaching encounter and not a diagnostic or therapeutic one, repeating to the patient that there will be clinical entities and diagnoses mentioned that have nothing whatsoever to do with this particular patient. Reassure the patient that if, despite all explanation, the patient still harbors fears or doubts, the patient is encouraged to express these to the group, and those questions will be answered.

If there are family in the room, ask first the patient and then the family if they wish to stay. There is seldom any reason on teaching rounds to remove family members from the scene. Have the housestaff explain complicated issues to the family and answer questions. It is a part of the teaching of communication. The patient may address most or all questions to you—you are the professor, after all. But you are there to teach rather than to seize control. Refer all questions to the students. Have them come up with the answers. Make gentle corrections where necessary.

Avoid asking the housestaff impossible questions. Don't ask "What am I thinking?" questions. Avoid asking questions designed merely to display your own intelligence. And as soon as you do, admit your error, apologize for it, and answer the question yourself. Inform your housestaff of the changing nature of the patient's history, that what is revealed today may not always correlate with what has pre-

viously been recorded, that such is the norm and no one should be shamed because of it. Remind them that one purpose of bedside teaching is communication: affording the patient an opportunity to expand on the history, allowing him or her to validate its accuracy and to ask questions of the housestaff and attending physicians. Emphasize this ground rule with your housestaff: Unless everyone, patient included, feels better after the bedside rounds, those rounds were not successful.

Perhaps most important of all, reassure your students that you will try not to embarrass the patient's physician. Indeed, tell them you will try not to embarrass anyone. Because the patient's physician is usually the student presenting the case, make it abundantly clear that whoever is presenting the case will not be asked any questions of a theoretical nature. Nothing makes the patient or student more uncomfortable than to display that student-physician's ignorance. Reassure your students that that is not your game. And in that connection, tolerate no jousting of other physicians.

Don't ask a question of a junior member after a senior has already missed the question. Remember, try not to embarrass anyone. You do not want these rounds to degenerate into a shark-feeding frenzy. Students can be adept at this if encouraged. They are competitive. They have already had a good deal of training in one-upmanship and in how-to-lacerate-your-neighbor. Discourage this, if you want bedside teaching to be fun, and if you want learning to take place. Control voluntary one-upmanship as well. If the chief resident hesitates over the differential diagnosis of a malar rash, never let a medical student blurt out the answer. One may argue that this too is learning from one another. But it is also "blood in the water." The sharks will soon circle, and your teaching rounds can degenerate. You do not want this.

Teach professionalism. Gently. Make the students proud of themselves, have them respect each other, and teach them to respect the patient. They will not chew gum. They will not attend with a cup of coffee in hand. There will be no leaning against the wall, no sitting on the edge of the bedside table. Discourage their wearing last night's pajamas in front of a sick human being. Teach them to be professionals. And while you're at it, teach them to teach each other.

Teach observation. Osler did. Albright did. Morgan and Engel did. You do it. When the presentation of history is completed and before the physical examination is recited, call on someone to point out three physical findings. While your student searches for the rash, the ptosis, and the surgical scar, watch the eyes of the other students. They will have suddenly come alive, have realized that observation is

important and that their turn will come. Turn them all to the window, then have them recite the contents of the bedside stand, or describe the patient, or the patient's room. Have them "deconstruct." That is, have them tell you what is not there, and what they might learn from that.

Learn when to say "I don't know," learn when to play the dumb farmer and when to play the Socratic gadfly. It will allow your students to teach, to learn, and to discover for themselves, rather than merely to be lectured to.

And when you have done all of this, you will find that you have made your bedside rounds fun rather than adversarial, that it is possible after all to get a whole conference room of students, all 23 of you, around the bedside. You will learn that your students have a great deal to teach you, and that patients do as well. You will become filled with tradition, infected with a legacy. And you will find yourself hurrying off to work in the morning, rushing to get to the bedside.

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