A PIECE OF MY MIND

Bedside Teaching Rounds Reconsidered

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In his 1905 farewell address to the staff of Johns Hopkins Hospital, Sir William Osler reflected on 16 years of accomplishments in the field of medical education, concluding that his greatest achievement was "[teaching] medical students in the wards, as I regard this as by far the most useful and important work I have been called upon to do."[1] Photographs of Osler examining patients and teaching others (**Figure**) reveal his systematic approach and its command on his trainees' attention.[2] Osler has become a model for modern teachers, although few of them currently regard bedside teaching as their greatest achievement. Most surveys today show that teachers spend less than 25% of their teaching time at the bedside, instead preferring conference rooms or the hallway outside patients' rooms as the place of instruction.[3,4] Barriers to bedside teaching—mostly absent during Osler's time—are insufficient time to teach, dependence of diagnosis on technology, obstacles created by infection control, and distractions from clinical responsibilities at distant computer stations. Also, many teachers find bedside teaching inherently difficult: normal clinical activities frequently interrupt all but the shortest of prepared bedside lessons, and spontaneous questions from patients and learners at the bedside are often unanswerable, at least immediately, and may fall outside the teacher's expertise.

Despite these challenges, there are compelling reasons to continue bedside teaching. Instead of increasing patient anxiety, bedside rounds can help calm patients, making them more likely to view physicians and trainees favorably and to be more confident that their medical problems are fully understood.[5,6] Even in critically ill patients, measurements of vital signs and norepinephrine levels during bedside presentations show no signs of physiologic stress.[7] Once students and house officers experience bedside teaching, they tend to prefer such rounds for future instruction, commenting that bedside rounds provide them their only opportunity to see teachers interact with patients, learn physical diagnosis, and reinforce the perspective that patients are not abstract diseases or hosts but instead unique persons.[4,6] Many patients experience satisfaction and pleasure in helping educate others, which can establish a special bond between them and their medical team. Given these advantages, how can we address the challenges of bedside teaching and make it routine for all trainees?

First, the oral case presentation must be brief. With the widespread availability of the electronic medical record, many teachers now review much of the patient's history and testing before bedside rounds, making the traditional long presentation not only unnecessary but wasteful of the limited time available. More concise presentations, emphasizing just the essential findings and current plans, help everyone focus on the patient's principal problems and leave time for teachers to clarify details and instruct trainees. Of the many ways to abbreviate presentations,[8] one format appears in eAppendix 1 in the Supplement.

Second, clinical teachers should recognize that there are two distinct kinds of instruction: one best taught in the classroom, and another that can be taught only at the bedside. The first type includes complex discussions of pathophysiology and management, subjects difficult to address fully at the bedside but more easily conveyed in classrooms, where trainees can sit down and teachers can take advantage of handouts, white boards, and fewer interruptions.

The natural subjects of bedside teaching, in contrast, are communication, professionalism, and clinical skills. Trainees closely observe all of the teachers' behaviors—how they handle introductions, address patient concerns, elicit key details, ask permission to examine, explain symptoms, avoid jargon, respect the medical team, and bond with the patient—subsequently borrowing for their own practice the empathetic and therapeutic behaviors and discarding the unhelpful ones. Instruction on clinical skills is more explicit and often focuses on the fundamentals of physical diagnosis, but teachers should be aware that there are two types of physical findings—those with technological surrogates and those without such surrogates. (A physical finding has a technological surrogate if the diagnostic standard for a disorder is a laboratory test or clinical image; for example, the physical findings of pneumonia have a technological surrogate—chest radiography—whereas the skin findings of cellulitis do not.) To address skepticism among some trainees who are enamored by technology and cynical about physical diagnosis, a fundamental lesson during bedside rounds is that the diagnosis of many clinical problems, despite modern testing, still depends primarily on what the clinician sees, hears, and feels (**Box**).

Third, because few teachers can speak eloquently about every clinical skill without preparation and because the time available to teach is usually meager, one effective strategy is to compose "teaching scripts," minilectures that the teacher memorizes and then uses during bedside rounds. Examples of scripts are "Distinguishing cellulitis from dermatitis," "Predicting prognosis in pneumonia," or "Differentiating hyperthermic syndromes" (eAppendix 2 in the Supplement presents one script, "Diagnosing Parkinson disease"). Sometimes the problems of a specific patient prompt a particular script, but other times the teacher creates the teaching opportunity by posing a question, awaiting an answer, and then delivering the lesson.

Fourth, we should celebrate the triumphs of bedside examination. In my own institution during recent

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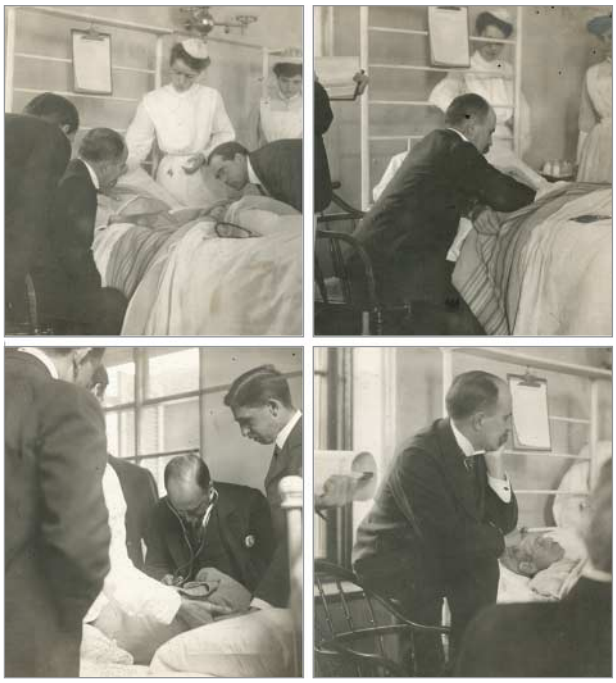
Figure. Inspection, Palpation, Auscultation, and Contemplation: Photographs of Osler teaching at Johns Hopkins, taken by Dr C. E. Brush (reproduced by permission of the Osler Library of the History of Medicine, McGill University, Montreal, Quebec[2])



weeks, examples include a patient with prolonged fever, splinter hemorrhages, and blowing systolic murmur (who, at the bedside, was diagnosed with subacute bacterial endocarditis); a young man with fever, polyarthritis, and psoriasiform lesions on his soles and penis (diagnosed with reactive arthritis); and a patient with melena, pallor, and matlike telangiectasias on his fingertips and lower lip (diagnosed with hereditary hemorrhagic telangiectasia). In each patient, bedside observations were decisive, trumping subsequent technological tests. Too often we champion in our teaching conferences as "great cases" the remarkable clinical image or the unusual laboratory result, overlooking the fact that bedside findings, when sought and discovered, can be just as decisive and at least as exciting.

Finally, teachers should approach bedside teaching fearlessly, unconcerned about facing questions outside their expertise. In the fourth photograph of Osler, entitled "Contemplation," the teacher stands next to the patient, chin in hand, meditatively looking down. The photograph conveys an Osler who is uncertain, suggesting that even great teachers sometimes lack immediate answers. For those who go to the bedside, encountering the unexpected is routine, and how teachers deal with such uncertainty—by thinking aloud, framing additional questions, or consulting others—becomes another bedside lesson that learners will not forget.

Box. Bedside Observations Trump Technology—Selected Examples

Dermatology[a]
- Cellulitis
- Herpes zoster
- Psoriasis
- Erythema multiforme
- Drug exanthem

Neurology[a]
- Amyotrophic lateral sclerosis
- Parkinson disease
- Radial nerve palsy

Musculoskeletal medicine[a]
- Ganglion (synovial cyst)
- De Quervain tenosynovitis
- Trochanteric bursitis
- Rheumatoid arthritis

Cardiology
- Mitral valve prolapse
- Pericarditis

Ophthalmology[a]
- Optic nerve disease
- Cataracts
- Red eye
- Diabetic retinopathy

Pulmonary medicine
- Reactive airway disease
- Upper airway obstruction
- Pleurisy

Vitamin deficiencies
- Scurvy
- Wernicke encephalopathy
- Pellagra

[a] A large percentage of diagnoses in dermatology, neurology, musculoskeletal medicine, and ophthalmology are defined by bedside observation. Only selected examples are presented.

Conflict of Interest Disclosures: The author has completed and submitted the ICMJE Form for the Disclosure of Potential Conflicts of Interest and reports receiving royalties from Elsevier.

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