FACULTY OF MEDICINE | UNIVERSITY OF CALGARY

Teaching Notes for Physicians:

Five Steps to Effective Teaching at the Bedside

Background

Barriers and advantages

Despite barriers of increasing patient acuity, shorter inpatient stays and stretched health care resources, bedside teaching is still the optimum format in which young physicians hone their history-taking, observation, and physical examination skills, and where they are exposed to clinicians who role model communication skills and professionalism with their patients (1).

Doctors as teachers

Good clinical teaching makes a difference (2). Excellent clinical teaching is not intuitive; after all, clinical medicine and teaching require different knowledge and skill sets, yet the individual teacher has the biggest effect on teaching quality (3). This article introduces a theory-based practical model to help physicians who are seeking ways to improve their clinical teaching.

What you must know at the start

The curriculum

What preparation has the curriculum given learners so far? Are standardized approaches taught? Check the learning objectives with course coordinators or use Osler, the electronic repository for curricular information (www.osler.ucalgary.ca)[i].

Learners' needs

Fine-tune your assessment by using questions to 'diagnose' learners' knowledge and by observing learners' clinical skills(4). Now you can plan learning objectives; negotiate these in advance with learners, to increase their motivation.

Your own needs

Be aware of your limits. Be prepared to acknowledge limitations and seek further information or specialist help if needed. This does not diminish your expert status, but serves to demonstrate self directed learning skills, an evidence-based approach, and professional behaviour to your learners.

Roles of effective clinical teachers

(Learner seniority increases, moving down the table)

Teacher	Identify learning needs Make teaching relevant Give effective feedback Involve all learners
Role model	Knowledgeable Skilled Caring Professional
Supervisor	Guide skill development Select experiences
Supporter	Accessible Interested Prepared to advise

From theory to a practical model

Principles of adult learning (5), cognitive (6) and experiential learning theories (7) form a sound basis for a practical and effective bedside teaching model. Theory suggests that maximum learning happens when we first guide our learners' practical experience and then promote their reflection on it. This thinking time is when new experiences are validated, understood, and linked with existing knowledge, ready to be drawn upon in future. Prompt the learners to plan when and how this newly-assimilated experience can be used in other situations, allowing them to build their own deep knowledge structures and broaden the contexts in which new knowledge can be applied. Putting this into practice, there are five steps to follow that can help ensure bedside teaching is effective for learners and time-efficient for busy physicians.

The Five-Step Model

1. Prepare
2. Brief
3. Teach
4. Reflect
5. Homework

Step One: Prepare

You don't need to teach on every aspect of every patient: focus your teaching to one or two issues to meet learners' needs and stay within your comfort level. Select suitable patients and seek their consent in advance, allowing a genuine opportunity to refuse. Check patient availability and schedule the visit, limiting time at the bedside to avoid patient fatigue. Make sure charts and diagnostic results will be available and advise staff of your teaching session. It can be beneficial to invite selected staff to join in, modelling teamwork and taking advantage of different perspectives on the patient and his or her disease.

Step Two: Brief

Consider asking your learners to review relevant topics in advance. Gather with away from the bedside – hallways are a poor venue, try for the conference room – and introduce the specific, relevant patient and disease characteristics, or have a learner do this (with notice), modelling an approach to the patient as a person. Brief learners on the purpose and goals of the visit, on what to expect, what can be learned, what not to miss; these 'advance organizers' will provide a framework on which learners can fit the new experience, making it easier to assimilate into their existing knowledge structures. Check for understanding. Go over your 'rules of engagement' regarding bedside etiquette, and give every learner a role; language monitor, making a brief presentation, conducting selected parts of the physical exam, for example.

Step Three: Teach

Introduce the entire team or have a learner do this, as patients like to know who is at their bedside. Avoid technical terms and hypothetical scenarios that could cause patient anxiety; teaching must consistently involve this patient, demonstrating his or her primary importance to both the patient and the learners. Use bedside time wisely; have learners take focussed histories, make observations, practise physical examination skills or clinical procedures (check for congruity between your preferences and standardized approaches that may be taught in the clinical curriculum), and negotiate management plans with the patient. Use this opportunity for diagnosing the learners to inform your future teaching plans. Match your teaching style to learner levels; junior learners need the structure of your authority, more senior learners need facilitation then finally, collegiality(5). Invite patient questions (learners may be able to answer these) and patient feedback. Close with sincere thanks before returning to the conference room to reflect.

Step Four: Reflect
Help learners to build understanding and assimilate new information by clarifying the immediate experience, and by linking it with previous knowledge (both clinical examples and basic sciences); this will build learners' understanding at many levels. Use hypothetical questions to help learners plan where they could use this experience in future contexts(8). Give effective feedback(9).

Two popular formulas for time-efficient teaching in the reflection step

SNAPPS(10)
The learner:

- Summarizes the case
- Narrows the differentials
- Analyzes the differentials
- Probes for more information
- Plans management
- Selects issues for further learning

One-Minute Preceptor(11)
The teacher:

- Gets learner commitment
  "so, what do you think is going on?"
- Probes for clinical reasoning
  "what lead you to this differential?"
- Teaches general rules
  "you'll find that patients with X usually present with Y"
- Reinforces good performance
  "your tact with Ms. Z helped her relax enough to tell you the real problem"
- Corrects poor performance
  "remember you can't rule out otitis media without an ear exam"
- Summarizes learning
  "so the main take-home point today is.."

Step Five: Homework
Help learners develop self-directed learning skills by encouraging them to identify what they need to learn more about after the session; make sure you follow up on this when you next meet with them. You may also have written your own 'learning prescription' in terms of where you want to improve your diagnostic skills or knowledge. Model evidence-based practice by bringing back answers to remaining questions to the start of the next clinical teaching session. Encourage learners to give you their feedback on your clinical teaching; your reflections on this session can help you modify your approach next time.

Enjoy your teaching!

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[i] Osler is available to students and faculty; contact Janet Tworek, Education Design Lead in Undergraduate Medical Education at jktworek@ucalgary.ca for a username and password.

For further information or confidential no-charge teaching consultations, contact us:

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