

THE EFFECTIVE PRECEPTOR SERIES

The Association of Professors of Gynecology and Obstetrics (APGO)

Teaching Skills for the Preceptor: Microskills Model



Using the Five Microskills to Improve Teaching in the Ambulatory Setting

How to use the microskills when precepting a student-patient encounter

Microskills work well when precepting a student in the outpatient setting. Ideally, the student has seen the patient independently and comes to the preceptor to present the history and any physical exam maneuvers that have been performed. The preceptor then follows with the questions, below, to guide the student's thinking. A case example of the use of microskills is opposite.

Microskill #1: Get a commitment

Arguably, in this most important of the microskills is a question asking for the student's impression of the case. The preceptor asks an open-ended question to get the student to commit to a differential diagnosis or assessment of the patient's problem. The question, asked after the student has presented the patient's case, is most often, "What do you think is going on with this patient?" This simple question moves the student from simply reporting patient data to making the commitment to consider possible patient diagnoses or steps in the workup to determine the differential diagnosis.

Microskill #2: Probe for supporting evidence

After the student has made the commitment to discuss thoughts about possible diagnoses, the preceptor asks the student to explain the rationale behind his/her differential. The preceptor challenges the student to explain the reasoning: What items in the history or physical exam made the student consider different diagnoses and next steps in the workup? The preceptor may evaluate the depth of the student's critical reasoning ability and fund of knowledge through answers to these types of questions.

Microskill #3: Teach general rules

After the student has had the opportunity to develop an assessment, backed up by verbalized reasoning, the preceptor may take a moment to do some targeted teaching about the specifics of the patient's problem. In general, this teaching is brief and designed to communicate a specific teaching point derived from the case.

Microskill #4: Reinforce what was done right

A commonly neglected aspect of teaching medical students is the delivery of useful feedback. The fourth microskill focuses on giving positive feedback on any or all aspects of the patient encounter. Positive feedback may touch on the student's interaction with the patient (if observed), the quality of the oral presentation, the ability to develop an assessment or the student's reasoning process in developing the assessment. Students strongly desire feedback, and this microskill formalizes the feedback component.

Microskill #5: Correct mistakes

The flip-side of positive feedback, correcting mistakes, involves the gentle delivery of constructive criticism and often points the way for students to pursue self-directed learning about aspects of the case they had confusion over. The preceptor clarifies misunderstandings about parts of the patient case and urges the student to identify knowledge or reasoning gaps.

Studies of the effectiveness of the five-step microskills model

Both direct and indirect evidence support the effectiveness of this teaching model. Direct evidence indicates that traditional precepting places more focus on correct diagnosis and treatment of the patient, whereas the microskills model leads to a higher degree of student participation in decision-making, while maintaining excellent quality of patient care. Indirect evidence comes from surveys of participating preceptors and students. Both teachers and learners highly rate the microskills teaching model.

Preceptors cite several advantages of the microskills model. They feel that they do a better job in identifying students' level of clinical skills and give better, more useful feedback than with a traditional model.

Students rate preceptors as better motivating them to read independently. When probed for the rationale behind diagnosis or management decisions, students may develop a stronger "need to know," motivating them to pursue outside study.



Case Example of the Five-Step Microskill Model

Third-year medical student presents a 22-year-old woman with PID:

Student:	So, in summary, this is a 22 y/o G-O with high fever and abdominal pain.	
Preceptor:	What do you think could be going on with her?	Microskill #1 – Get a commitment.
Student:	I think she has pelvic inflammatory disease.	
Preceptor:	What made you think she has PID?	Microskill #2 – Probe for supporting evidence.
Student:	She has complaints of abdominal pain, a fever, abdominal tenderness with peritoneal signs and cervical motion tenderness.	
Preceptor:	Excellent reasoning. Could anything else be going on?	Microskill #4 – Reinforce what was done right. Microskill #1 – Get a commitment.
Student:	It is less likely that she could have appendicitis or pyelonephritis.	
Preceptor:	What are the next steps for this patient?	Microskill #1 – Get a commitment.
Student:	We should get a white count and send her home with antibiotics.	
Preceptor:	I agree that we should obtain a white count and probably also an ultrasound to rule out an abscess. Given her nulliparity, high fever and peritoneal signs on exam, this patient would be better served by inpatient treatment with IV antibiotics. Please look up decision making about outpatient vs. inpatient treatment of PID.	Microskill #3 – Teach general rules. Microskill #5 – Correct mistakes.

Source: Adapted from Parrot et al., *Family Medicine*, 2006

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What is the Five-Step Microskills Model?

The five-step microskills model, developed in the early 1990s by Neher and colleagues, creates a framework for teaching medical students in the outpatient setting. Using these microskills, students may derive a high quality learning experience, and the preceptor should experience minimal impact on his or her productivity. The microskills are designed to promote independent thinking on the part of the student, allowing an opportunity for constructive feedback.

Tell Me More!

The preceptor uses a series of five questions, in the context of a patient visit, to encourage the student to “think like a doctor,” developing an assessment and rationale for that assessment, a differential diagnosis, if appropriate, and next steps in the patient work-up. The questions also lead the preceptor to provide good feedback, teaching briefly about the patient’s problem and gently correcting any mistakes made by the student.





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This publication is part of the APGO Effective Preceptor Series – a group of pamphlets intended to educate practitioners and learners about the apprentice system or preceptorship. The quality of learning that occurs in an established relationship between the teacher and the student often meets the challenge of educating physicians in today's chaotic health care environment. It allows doctors in training to practice as much like doctors as good medical practice will allow...and it provides a setting in which some of the best medical education in our nation takes place.

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