Residents have long struggled in their roles as teachers, and medical students have voiced their own desire for a more pedagogical approach to clinical rotations. One solution to both problems draws on an essential tool in undergraduate, secondary and even primary education: The lesson plan.

“Teaching the teacher: Using lesson plans to build residents' clinical teaching skills,” a workshop at the inaugural AMA GME Innovations Summit, outlined the important role that lesson plans can play in helping residents improve their skills in teaching both critical reasoning and how to interpret data from the history and physical.

Residents, students want more

The UCLA-Olive View Internal Medicine Residency Program ran a pilot study of the need for a curriculum more heavily rooted in the resident-as-teacher and found that “interns in general lack confidence [as teachers] and that they want their programs to help them become better teachers,” said program director Laxmi Suthar, MD. “We also looked at the data and found … clinical reasoning to be a continued area of weakness for medical students without clear curriculum.”

3 model approaches
The study tested several lesson plan models and found residents’ confidence in teaching improved in two key areas: how to distinguish pertinent history and how to create a differential based on epidemiology and physical exam.

“The reason I started making these lesson plans was based on my previous experience as a high school teacher,” said Michael Kahn, MD, a third-year resident in the UCLA-Olive View Internal Medicine Residency Program. “Lesson plans provide a way for us to be very deliberate about what we're trying to teach.”

Drs. Kahn and Suthar presented three models.

“Keep It Simple” targets residents and attending physicians and is best used for on-call or post-call days, prior to presenting a patient. It seeks to help learners distinguish between pertinent history and low-yield information and critically evaluate the patient’s history for important details for a clinical presentation.

“When the teacher sees a patient with a medical student, after the medical student writes a note but before presentation,” the practice is to have the medical student “go through a differential diagnosis,” Dr. Kahn said. “We found that this provides a robust opportunity for discussion, that there's not necessarily a right or wrong answer, but it helps make the learner and the teacher's thinking transparent so that we know what each person is thinking and why certain information is included and why it wasn't included.”

“Differentiating Differential Diagnoses” also targets residents and attending physicians and is useful during on-call days or prior to meeting patients. The idea is to help learners hone their understanding of how to create a differential diagnosis based on the most important epidemiologic, historical and physical exam findings.

“Before you go in to see the patient with the learner, you would go over the differential diagnosis with the medical students,” Dr. Suthar said. “Then during the interview, you would be pausing at each portion of the interview—after the history or after the physical—and asking the medical student to rearrange or alter the differential diagnosis in real time. This is also a great way to have the patient be a part of the teaching experience, as they get to hear the thinking process of both the student and the faculty member or resident.”

“Learner-Led Learning Objectives” is aimed at attending physicians and senior residents and is intended for non-call days during rounds. Learners identify their areas of difficulty and learning objectives, then they present uninterrupted. Teachers use their preferred didactic approaches and have learners teach back their learning objectives to assess their understanding.

URL: https://www.ama-assn.org/education/improve-gme/building-lesson-plans-make-medical-residents-better-teachers
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“The one thing that I have found as a program director is that many times, I assume I know what my students or my residents need to learn,” Dr. Suthar said. “With this lesson plan, it really allows the resident or the student to be the one to decide what the learning objectives are for that particular case presentation.”

Learn more about the AMA Reimagining Residency initiative.