How medical students add value to care long before they earn MD

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Traditionally, the closest that first-year medical students got to real, live patients were the real, dead cadavers they dissected in gross anatomy classes. That is starting to change in a big way, as more medical schools that are part of an innovative AMA effort to reshape medical education see a win-win for patients and medical training that comes as a result of incorporating medical students into their health systems during trainees’ early days.

In a recent webinar hosted by the AMA’s Accelerating Change in Medical Education Consortium, stakeholders from three of the consortium’s 32 schools offered insight on programs that facilitate student learning in health systems science while adding value to patient care.

Building bridges to the clerkship years

The University of California, San Francisco, School of Medicine (UCSF) implemented its Bridges curriculum to immerse students in learning health systems science from the outset of their undergraduate medical education.

First-year UCSF medical students spend one day a week in one of three health systems supported by physician coaches. That time in the clinical setting follows didactic learning time dedicated to health systems science. The early returns are encouraging: Of first-year students six weeks into medical school, 92 percent passed—earning a score greater than 70 percent—paper case clinical improvement scenarios from the Quality Improvement Knowledge Application Tool assessment.

After they have proven their knowledge of the improvement strategy, the students apply the quality-improvement framework to the needs of the patient and the care delivery teams in an assigned systems improvement project. Recent projects have resulted in significant system improvements, including programs that increased hypertension control in African-American patients and decreased
prescriptions of unnecessary antibiotics to newborn babies.

“This learning empowers students to explore gaps in our system’s outcomes and processes and embrace the complexity of teamwork and improvement,” said Anna Chang, MD, the director of UCSF’s clinical Microsystems clerkship. “They tell us how much they learn about humble and effective ways that even a student who is new to the system can ask respectful questions, bring new perspectives to an old problem and lead to important improvements of the status quo.”

Guiding patients through care system

Pennsylvania State University College of Medicine is offering its students the chance to improve patient outcomes at the individual level as patient navigators. This aspect of Penn State’s curriculum is a nine-month experience in which students are immersed in a clinical site or program. Student navigators work with patients and clinical staff to determine barriers to care and help patients find ways to overcome them.

Kaitlyn R. Shank, a fourth-year Penn State medical student, worked as a patient navigator at an internal medicine ambulatory clinic during her first year in med school. The experience gave her early training on the system’s electronic medical record system and firsthand lessons on the social determinants of health.

“Our curriculum has been designed to encourage and demonstrate the concepts that med students don’t have to wait until they’re physicians to add value to the health care system,” Shank said. “Training students to be cognizant of the health system will allow them to identify barriers to care and act as innovative change agents to address these issues.”

Med students show they’re not a burden

At Case Western Reserve University School of Medicine, first-year medical students work as members of interprofessional patient-centered medical home teams to optimize care for vulnerable, high-utilization patients such as veterans and refugees.

Like the Penn State program, the students wear many hats working as system navigators. The facilities in which the students operate were involved in creating Case Western’s patient-navigation program, which has cultivated a more collaborative atmosphere among the medical school and the health system.


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“Often when we put these early learners into our health systems they invariably are seen as adding some kind of burden,” said Pat Thomas, MD, Case Western’s vice dean for medical education. “We wanted to make sure they were going to bring value to a system when they were placed in it. And there is evidence that the learning is improved when you do this successfully. Heightened student engagement occurs when they feel they are adding value.”

A question-and-answer session with experts was held following the webinar in the AMA Accelerating Change in Medical Education Community. Slides and video from the webinar are available there as well.