Where do medical interns spend shifts? Tracking badges tell tale

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Brendan Murphy
Senior News Writer

Medical residents are spending as little as 13% of their time in direct patient activities, according to a study published in June. In lieu of time with patients, internal medicine interns are spending more time in physician work rooms (33%) and ward hallways (24%).

For the study—published June 8 in *JAMA Network Open*—researchers used real-time locating system badges to track 43 first-year medical residents over nearly a year, amassing nearly 100,000 minutes of tracking data. The research was conducted by investigators with The Graduate Medical Training Laboratory: An Innovative Program to Generate, Implement, and Evaluate Interventions to Improve Resident Burnout and Clinical Skill. That program is one of the 11 projects in the AMA Reimagining Residency initiative.

### Time in patient rooms

Time spent with patients is largely seen as a key to residents sharpening their clinical skills and a potential force that could mitigate resident physician burnout. There were some variations in time at bedside spent by residents as a group—for instance, the time residents spent in a patient’s room was significantly higher in the evenings (17.8%) than in the afternoons (11.6%).

Interns varied widely in how much time they spent at bedside, with the average percentage ranging from 8.8% of their time on duty to 18.3%.

A second study, with a new cohort of residents, is underway to examine how time at bedside impacts medical residents’ well-being and clinical skills, according to Brian Garibaldi, MD, senior author of the study.
“My suspicion is that the folks who spend more time at the bedside are probably going to be better at bedside skills,” said Dr. Garibaldi, an associate professor of medicine at Johns Hopkins University School of Medicine. “They are probably going to [be] individuals who enjoy interaction with people and derive satisfaction and meaning in getting to know patients as individuals, using their knowledge of them as a person to help guide them through uncertainty and the difficult decisions that sometimes need to be made.”

Another key finding from the study examined clinical service rotations. The research broke down those rotations into five categories: house staff (general medicine rotation led by chief residents), hospitalist (general medicine rotation led by hospitalists), intensive care unit (ICU; both medical and cardiac), oncology, and non-oncology subspecialties (cardiology, gastroenterology, renal transplant, and neurology). In analyzing those rotations, the finding was that with the exception of oncology, bedside-time during rounds was lacking. During oncology rounds residents spent about 26% of time at bedside. That figure was as low as 8% on rounds for other rotations.

“What we’ve seen with bedside rounds, for example, is a migration to the hallway or the conference room. Part of that is probably a function of physicians who have gone through training and never really got comfortable with their bedside skills so when it’s time for them to teach others, it’s more effective or more comfortable to teach skills that don’t require being with the patient,” Dr. Garibaldi said. “So that means they spend less time teaching the physical exam and communication and more time going over how to interpret laboratory tests or imaging.”

Learn with the AMA about the eight domains of well-being that new interns should master.

Making use of the data

The accumulation of data via the tracking technology can allow for data-driven decision-making when it comes to how physicians are trained.

“People ask me what’s the magic number for time at the bedside,” Dr. Garibaldi said. “Is it 15%? Is it 20%? And my reaction always is it may not be the amount of time you spend. It might be how you spend that time. But these are things we can assess. … If you want to implement individualized learning plans, you need to have data about individuals that you can use to inform what the interventions will be.

“Like most skills, being an effective and efficient bedside clinician takes practice and intentional effort. Focusing on developing those skills now will pay off greatly down the road. But we have to start
somewhere, and the first step is committing to spending more time in the patient room than we currently do.”

As far as what residents can do on their end, Dr. Garibaldi called for a close examination of individual workflows.

“I would encourage residents to flip their normal admission workflow on its head,” he said. “Instead of spending 30 minutes or more reviewing a patient’s chart and then going to see them, go spend time with the patient first. For many hospitalized patients, you can get almost all of the information you need by talking with them and then examining them. You can then do a focused chart review to gather additional information. You can also spend time in the patient room while reviewing data in the electronic health record. Just by being in the room, you will likely start to notice things you may have missed, and you will have more opportunities to get to know patients as individuals.”

Read more about how first-year medical residents spend their training time.