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Study finds amount of work for residents -- not just hours -- need review

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The number of patients assigned to medical residents and the complexity of care patients require has just as much impact on residents' training as the number of hours they work, according to a study published by researchers at the University of Chicago Medical Center in the September 10 issue of *JAMA*.

The study is believed to be the first of its kind using information gathered objectively from medical residents who work long shifts as part of their training.

"A lot of people have been talking about this, but no one had any hard data until now," said study author Vineet Arora, MD, assistant professor of medicine at the University of Chicago Pritzker School of Medicine. "In the past, we have focused on the hours that residents work, but now we also need to focus on the intensity of the work."

The study is timely. The Institute of Medicine is expected to release new recommendations in winter 2008 about how residents' schedules should be changed to improve patient safety. The last major guidelines for resident work schedules came in 2003 after the Accreditation Council for Graduate Medical Education set a maximum shift duration of 30 hours, with a maximum work week of 80 hours.

The IOM report is expected to address more than just time spent at work, including how work experiences can be redesigned so residents can reach their educational goals, instead of winding up tired and

overwhelmed. In contrast to U.S. medical residents, European physicians in training only work a maximum of 56 hours per week.

The University of Chicago Medical Center study is unique because it used objective methods to track work routines and the effect of work demands on residents. Previous studies relied on residents reporting their own information and data.

Residents in the study wore wrist activity monitors that measured their sleep so they didn't have to report it themselves; on-call hours were gathered through pager data that indicated exactly when residents clocked in and out; and residents carried Pocket PCs that asked them to report what they were doing when they got beeped.

The study included 56 internal medicine first-year residents in typical ward rotations at the University of Chicago Medical Center. From July 1, 2003, to June 24, 2005, those who participated in the study were monitored for a total of 1,100 on-call nights.

The study found that for each patient admitted, the resident lost sleep, worked a longer shift, and had less time for educational activities. The most sleep loss and longest shifts occurred early in the academic year--when most residents are "learning the ropes" in their new hospital setting.

Study co-author Emily Georgitis, MD, a first-year resident, said it's difficult to get enough sleep and attend educational conferences when her workload increases. "If I admit five patients, I know I am going to get less sleep and not have as much time to pursue other activities that enhance my education--things that will ultimately make me a better doctor," she said.

Arora says that reducing the number of work hours without considering

the work load could make conditions worse for residents by requiring them to "do the same amount of work in a shorter time."

"These findings raise concerns about the possibility of future duty-hour restrictions in the absence of corresponding limits on workload," the study adds.

Source: University of Chicago