No change detected in quality of care with overnight hospital supervision

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With the implementation of an on-site attending-level physician supervising the overnight medical residents, the Penn State Hershey Medical Center has not seen any significant impact on important clinical outcomes, according to medical researchers.

"Over the past 10 to 15 years, academic hospitals have utilized hospitalists during the day," said Jed Gonzalo, associate dean for health systems education and assistant professor of medicine and public health sciences, Penn State College of Medicine. "Ours is the first study to look at the impact of an overnight academic hospitalist program."

A hospitalist is a doctor who primarily sees patients in the hospital. In recent years, many teaching hospitals have implemented an overnight academic hospitalist (OAH) program in response to concerns for patient safety and quality of care.

Gonzalo and colleagues evaluated the impact of an OAH program implemented in September 2012 on outcomes for patients such as in-hospital mortality rates and lengths of stay. The researchers reported their results in the current issue of the *Journal of General Internal Medicine*.

In order to compare outcomes before and after implementation of the program, the researchers reviewed the medical records of all patients admitted to the internal medicine department at the medical center between April 1, 2011 and May 31, 2014.

Over 6,000 patients were admitted during the overnight shift—from 7:00 p.m. to 6:59 a.m.—over the course of the study period. A little less than half of the patients were admitted prior to the intervention—42 percent—with 58 percent admitted afterward.

The researchers focused on five primary outcomes as they reviewed patient admissions: in-hospital mortality rates, 30-day readmission rates, lengths of stay and transfers to the intensive care unit both on the night of admission and later during the hospital stay. There were no significant differences between any of the outcomes when comparing patients admitted before and after the OAH program was implemented.

Prior to the intervention the in-hospital mortality rate was at 1.1 percent, and after the intervention it was 0.9 percent. There were slightly fewer patients—3.5 percent—upgraded to the intensive care unit during their hospital stay before the program implementation than there were afterward—4.2 percent.

The researchers did not find any significant differences in age, gender or race of patients admitted to the hospital before and after implementation of the program.

"Given that regulatory bodies are pushing toward on-site house staff supervision, the medical education community needs to think about how to continue to allow autonomy for residents," said Gonzalo. "For years, residents were on their own at night—they had to make decisions on their feet, because the buck stopped with them. Newer models of care at night have the potential to strip away residency autonomy because they can lean on the attending now. However, the other view is 'the more eyes, the better.' So it's a challenge we need to think more about to balance education and ideal patient outcomes."

Gonzalo pointed out that this was also only one study of one model of an

OAH program at one hospital. More studies will need to be done in other locations, with other models to get a more complete picture of the pros and cons of OAH programs.

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