

## Patients at teaching hospitals don't fare worse with trainee doctors, research shows

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(Medical Xpress)—A University of Florida physician and colleagues have "mythbusted" a notion long held in medical circles: patients at teaching hospitals fare worse in July when new medical graduates start their residency training and older residents take on more responsibilities. A large national study revealed no such "July phenomenon" or "July effect"—at least not in the field of neurosurgery.

The findings are published today in the journal Neurosurgery.

"If anything goes wrong in July, then everyone's quick to say 'Do you see? It's because of the July effect'—but we saw no evidence for that,' said senior author Dr. Brian Hoh, the William Merz associate professor of neurological surgery at the UF College of Medicine. "This study will raise thoughts and ideas about how we can improve training for residents and improve safety for patients."

The July phenomenon is infamous both among physicians and patients. Conventional wisdom has it that if you are going to be a patient at a teaching hospital, try not to go in July.

The graduate medical year starts on July 1, at which time recent medical school graduates start bearing responsibility for patients for the first time, and previous interns and residents move up a level, taking on new and unfamiliar tasks.

Previous studies of the July phenomenon in fields such as general



surgery, obstetrics, gynecology and internal medicine have yielded inconsistent results, some finding an effect and others finding none. Hoh, a member of UF's McKnight Brain Institute, wanted to see what happens in neurosurgery, where doctors train for many years to gain proficiency in complex and delicate brain surgeries. One earlier study of pediatric neurosurgery found no effect, whereas another study found a small effect.

Seeking a clearer view, Hoh and colleagues at UF and Harvard's Massachusetts General Hospital analyzed more than 850,000 teaching hospital admission and patient-outcome records from a database called the National Inpatient Sample. They assessed the rates of patient deaths and surgical complications in July compared with all other months, from 1998 to 2008.

The researchers evaluated four brain conditions that were representative of diseases commonly treated at teaching hospitals: nontraumatic hemorrhage, central nervous system trauma, central nervous system tumor and hydrocephalus.

After taking variations in patient demographics and hospital characteristics into account, the researchers found that the risk of death or complications at <u>teaching hospitals</u> was the same in July as in other months. The results reflected those at nonteaching hospitals used for comparison.

"If you've got new physicians on the job and you've got physicians that have just been promoted to a new level, it's sort of the perfect storm for medical errors—it makes intuitive sense, but for a variety of peculiar reasons it's just not the case," said Dr. Hunt Batjer, the Lois C.A. and Darwin E. Smith Distinguished Chair in Neurological Surgery at the University of Texas Southwestern Medical Center and chair of the Residency Review Committee for neurological surgery of the



Accreditation Council for Graduate Medical Education, the body that certifies post-medical school training for the entire U.S. Batjer was not involved in the study.

The authors say multiple layers of supervision seem to more than compensate for the inexperience of young physicians, providing a safety net for patients.

"Maybe in July, that oversight is heightened because supervising physicians pay more attention to what new residents and interns are doing," said Hoh, who practices at Shands at UF medical center.

Still, the researchers point out, there might have been near misses in which errors or complications were averted, but there was no way to identify from the database whether such occurrences increased in July compared with other months.

"In some ways, I hope people continue to talk about the July effect or the August effect," Batjer said. "It will force us to remain vigilant."

## Provided by University of Florida

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