Physician Assistants Make Their Mark in Surgery

BY ALICIA AULT
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Among other changes engendered by the 80-hour workweek restrictions, more hospitals appear to be allowing physician assistants, nurse-midwives, and other midlevel staff to take over some duties from residents in the operating room.

"I absolutely think it's a trend," said Dr. Richard L. Prager, head of the division of adult cardiac surgery at the University of Michigan in Ann Arbor. But he sees it as a slow-simmering trend that has been given a boost by the declining number of residents in rotation in the surgical suite.

In July 2003, the Accreditation Council for Graduate Medical Education said residents' work hours should be limited to 80 per week and continuous duty limited to 24 hours, with a 6-hour extension if needed for continuity of care or for educational reasons. In addition, residents should be on call in-house only once every 3 nights, according to the ACGME guidelines.

Physician assistants (PAs) and nurse-practitioners are also expanding their roles in the critical care unit, said Dr. Prager. He views this as a positive development for residents. They should be on the floor or in the operating room "for educational aspects, and not simply to do chore work," he said.

"It is reasonable to guess that when the 80-hour workweek restrictions went in, a lot of programs looked into ways of supplementing the service component of what residents do," said Dr. Roger P. Smith, chair of the Council on Resident Education in Obstetrics and Gynecology Committee for the American College of Obstetricians and Gynecologists.

Dr. Smith said some of the surgical services provided by residents may be of questionable educational value. As a result, some hospitals have decided to shift the workload to people with the skills to perform the job who aren't under a restriction on hours, he added.

There is, however, no hard evidence that a big shift has occurred, said Dr. Smith, who is also director of the residency program in the department of obstetrics and gynecology at the University of Missouri–Kansas City.

A systematic review of approaches taken by hospitals to reduce residents' work hours found a mixed bag on how the increased use of PAs and nurses affected residents across specialties, including their presence in the operating room (JAMA 2005;294:1088-100).

The increased use of midlevel providers is a positive development for residents.

DR. PRAGER

According to the investigators, three programs increased residents' OR experience. Another program that added night float and weekend cross-coverage significantly boosted the number of cases for the chief residents. A program that added health technicians to the surgical service increased residents' average operating room time from 3.3 hours per week to 9.8 hours per week. Several studies found no change in residents' OR hours, and three found that the number of their operative cases decreased.

Meanwhile, the number of residency slots available in the United States has remained stable, according to the Association of American Medical Colleges. In 2005, of the available 24,012 residency positions in the United States, 22,221 of them were filled, the AAMC said. First-year residencies in general, orthopedic, and plastic surgery have generated a great deal of interest. From 2001 through 2005, the number of general surgery slots offered remained pretty steady at about 1,050, and orthopedic positions offered hovered around 600. The number of plastic surgery positions grew from 58 in 2001 to 81 in 2005.

The path taken by PAs generally follows that of medical students and physicians, said Nancy Hughes, vice president of communications and information services for the American Academy of Physician Assistants. According to AAPA's survey data, over the past 7 years there has been little change in the percentage of respondents who say they work in surgery or a surgical subspecialty, perform invasive pro-

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Computerized Drug Orders Can Reduce Hospital Errors

BY JOYCE FRIEDEN
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WASHINGTON — Aiming for computerization of physician order entry at health care institutions isn't the right course to take, Dr. Stephen T. Lawless said at a health care congress sponsored by the Wall Street Journal and CNBC.

"That's the wrong goal," said Dr. Lawless, chief knowledge and quality officer at Nemours, a Wilmington, Del., pediatric subspecialty practice with about 1 million patient encounters per year. "The right goal is NPOE—*no* physician order entry. Just tell us what you want and we'll have the best person [enter] it for you."

With this caveat, computerized order entry still remains an important tool in reducing medication errors, said Dr. Lawless, also professor of pediatrics at Jefferson Medical College, Philadelphia.

He said that the hospital where he practices—the Alfred I. DuPont Hospital for Children, Wilmington—partnered with a large pharmacy chain and asked the pharmacy to find the errors in the hospital's handwritten prescriptions.

Of handwritten prescriptions, 35%-40% had errors, he said. "Of those, 53% had legibility problems, 36% had issues with completeness, and 11% had content errors."

The hospital's use of electronic prescribing has eliminated legibility errors, but that still leaves the other half of the errors to be resolved, he said. That's where the "decision support" piece comes in, which has encountered some resistance from providers. "We're forcing people by saying, 'You've picked this drug at this time, at this dose, at this range. Thank you very much.' It's very hard to make people do that."

Dr. Lawless said measures such as checklists are resisted by the medical community because "we all think it's about health care professionals being industrialized. I'm saying it's [about] health care craftsmen fighting being professionalized." ■

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cedures, or assist with surgery. But the growing number of practicing PAs has meant an overall increase in their presence during this same period.

In 1999, 3% of the 15,000 or so respondents said they practiced in general surgery and 17% in surgical subspecialties. A total of 44% said they performed invasive procedures, and 25% said they assisted with surgery. In the 2004 survey, 3% of the 20,500 respondents said they practiced in general surgery and 21% in surgical subspecialties; 42% performed invasive procedures, and 26.5% assisted with surgery.

Judith Zaczek, a certified physician assistant (PA-C) in the ob.gyn. department at Oakwood Hospital and Medical Center in Dearborn, Mich., believes there has been a trend toward more PAs replacing residents in the OR.

At her facility there are 16 residents total per year, with 4 on the ob.gyn. service. But there are three PAs and two midwives to help with the 6,000 deliveries per year. The attending physicians are happy to have the help, Ms. Zaczek said. "I think they've seen what continuity of care is, and they appreciate that."

Dr. Prager agrees that advanced practice PAs and nurse-practitioners are invaluable to a surgical team because they know the routines and are committed and efficient. At the University of Michigan Hospital, four PAs provide first and second assistance for cardiothoracic surgery. They are more skilled in harvesting arteries endoscopically than the junior-level residents, he said.

An advanced practice team of 10 PAs and nurse-practitioners manages the floor, generally covering 30-32 patients and freeing residents from rounds. Dr. Prager sees this as a boon to both the hospital, which gets more efficient patient care, and the residents, who spend more time on education.

A similar evolution has taken place at St. Joseph Mercy Hospital in Ann Arbor. Before workweek restrictions were in place, the cardiothoracic service had seven PAs. With the reduction in residents' hours, the hospital had to double that number to cover critical care 24 hours a day, 7 days a week, and to assist both during and after operations, said LaWaun Hance, a PA-C and education coordinator for the cardiothoracic PA residency program at St. Joseph.

The PAs provide first and second assists, including endoscopic vein harvest, and if necessary they open or close the chest, said Ms. Hance. ■