



Residency Programs Continue to Respond to Duty Hour Limits

—By Elissa Fuchs

Ever since residents began training under a new set of duty hour restrictions in 2003, graduate medical educators have worked doggedly to see that residents both complied with the 80-hour work week limits and still received a thorough education.

Five years later, residents and graduate medical education (GME) program leaders are still wrestling with this conundrum. Some attempts have worked, some have not, and for others, the jury is still out.

Several GME programs have been redesigned to help residents and program leaders strike the perfect balance between duty hour restrictions and high-quality education. One program that encapsulates the successes and lingering challenges that can accompany these programs is the surgical residency program at Northwestern University Feinberg School of Medicine. This program employs an apprentice model in which each resident trains alongside one or two faculty members, with the ultimate goal of streamlining the training process. Program director John Coyle, M.D., said the model has a fairly basic principle behind it.

“Independent doctors don’t work more than 80 hours a week, and since we are training residents to be us, the idea was just to have them follow us,” Coyle said.

The apprentice model, which still exists in the Northwestern surgical GME program but was ultimately reduced from 40 percent to about 10 percent of a trainee’s educational experience, has its share of supporters and detractors. Younger residents, he said, particularly enjoy the program.

“Our interns felt like they were in heaven,” Coyle said. “They could take care of their patients and then go home.”

At the same time, the program provides specific educational benefits. First- and second-year Northwestern residents enjoyed a substantial increase in operative cases as apprentices, and scored higher on the American Board of Surgery In-Training Examination, according to a 2003 *Journal of the American College of Surgeons* article.

However, the apprenticeships created more responsibilities for faculty members and senior residents, who were providing some services, like discharge summaries, that had been traditionally delegated to newer residents. Partly, because of this, Coyle said, “a certain amount of support for a more traditional patient care hierarchy began to emerge.”

Sharon Dooley, M.D., M.P.H., Northwestern’s senior associate dean for graduate medical education, said that “residents enjoyed the team structure, where junior and senior residents collaborated together.”

William Friedman, M.D., chair of the neurosurgery department at the University of Florida College of Medicine, said he has noticed an improvement in resident quality of life—and a decrease in board examination scores—since the 80-hour work week began. However, Friedman said that curricular changes over the past five years have strengthened, educational experiences.

To create a curriculum in line with the 80-hour limit, Florida’s neurosurgery program leaders whipped out their calculators and performed a bit of basic math.

As carefully supervised but semi-independent neurosurgeons, senior residents now have a more gradual introduction to independent practice. On the other end of that spectrum, first-year residents are focusing earlier on neurosurgery, where before they stayed longer in the general surgery program. Around six months ago, the program implemented a new lecture series on clinical neuroscience.

The University of Florida, and other institutions nationwide, will continue to monitor its program and its residents to ensure maximum efficiency and

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“We realized if residents take more than one night call per week plus their non-call days, they are automatically over 80 hours,” Friedman said. “So we reduced call to one out of seven nights.”

Actually getting residents to comply, however, has been another part of the battle.

“A lot of neurosurgery residents’ automatic response is that they are not going to abide by the duty hours because it breaks long-standing cultures,” Friedman said. “To counter this, we include lectures on sleep deprivation, and the history of the duty hours requirements. We emphasize that this is the law of the land.”

Since this “law of the land” came into effect, however, residents are not performing as well on standardized examinations.

“My guess is when people are working 100 hours a week, all they do is neurosurgery. Now they are doing other things with that time,” Friedman said. “But these residents are well-rested, happy, and still high-quality independent doctors after they finish training.”

Curriculum changes at the school are improving the caliber of residents’ education, Friedman said. Five years ago, rotations were rearranged so that trainees could become junior faculty during their final year of training.

effectiveness within the duty hour limits. At the University of Washington School of Medicine, a computerized resident sign-out system, known as UWCoRes, was implemented about four years ago. UWCoRes includes up-to-date information on a patient’s initial diagnosis, medications, diet, allergies, and an action plan for the patient’s treatment, and was designed to increase patient safety and care coordination during “hand-offs,” where residents transfer patient care responsibilities after their shift ends.

John Coombs, M.D., associate vice president for medical affairs at the University of Washington, said UWCoRes “is a central part of the strategy of maintaining efficiency and accuracy in the patient care environment.” The institution has incorporated UWCoRes in almost all of its residency programs.

Although no data are yet available, the university is in the process of measuring the effect of UWCoRes on patient safety. Residents, however, say they are benefitting from the system.

“It provides lab values and vital signs,” said Benjamin Jackson, M.D., a chief pediatric resident at the University of Washington. “Especially when treating critically ill patients, it’s great to have something that automatically gives you the most up-to-date information.”