



Making short shrift of long shifts: the regulation of resident work hours

It's a tradition: Residents work long shifts throughout training to care for the sick patients in their charge. What do I mean by "long"? In many programs, residents are on call for 36-hour shifts 2 or 3 times a week, in addition to putting in 10 to 14 hours each "day." Many also work continuous 60-hour shifts from Saturday morning to Monday evening to give other residents the weekend off. Although the impact of extended duty has not been studied in detail, many authorities are concerned that acute and chronic sleep deprivation may cause emotional problems for residents and reduce patient safety.

For example, 1 recent study evaluated mood and empathy levels over the course of an internship in internal medicine.¹ At the internship's beginning, residents exhibited less tension, depression, anger, fatigue, and confusion and had more vigor than the general adult and college-student populations. Five months later, however, they exhibited significant increases in depression, anger, fatigue, and personal stress and decreases in empathy and personal vigor. These changes persisted for the remainder of the internship.

A new era

Now long shifts appear to be coming to an end. In June, the Accreditation Council for Graduate Medical Education (ACGME) promulgated new rules for resident duty hours, which include 6 key provisions (all hours are an average taken over 4 weeks):

- Residents cannot work more than 80 hours each week.
- Every resident must have 1 continuous 24-hour period free from patient-care responsibilities each week.
- Residents cannot take call more frequently than every third night.
- In-house call duty is limited to 24 hours. An additional 6 hours can be added to the shift to transfer the care of patients and for educational activities, but no new patients can be accepted after the initial 24 hours.
- A 10-hour minimum rest period must be provided between duty intervals.
- When residents take call from home that necessitates coming into the hospital, that time must be included in duty-hour calculations.

While well-designed clinical trials may be lacking (several are under way), there is evidence that these changes are needed. Existing studies suggest that sleep deprivation has a significant impact on human performance in general—especially when it comes to complex tasks.² For example, in 1 investigation, more than half of a cohort of roughly 1,000 emergency department residents (whose work hours are limited to 12-hour shifts) reported experiencing 1 or more near-crashes in motor vehicles; 8% reported actual accidents, most of them occurring after a night shift. Approximately 70% of the crashes involved only a single vehicle—a finding typical of drowsy driving.³

Not surprisingly, there is strong support among residents and medical students for the effort to reduce duty hours. But while these changes probably will improve resident per-

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