Editorial

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Present at the birth of the 16-hour work shift

ObGyns’ long, long tradition of working long shifts in the hospital appears to be at its end

For the past century, ObGyns have worked long shifts, during training and in practice, to care for the sick and laboring patients in their charge. But change in that tradition—beginning almost two decades ago—is gathering momentum again, as lawmakers declare that “long” shifts are sometimes still too long.

How long is “long”?

A long work shift, as you well know, could be as long as 60 hours; shifts of 24 to 30 hours have been common practice. The principal advantage of a long shift? A single physician provides a high level of continuity for his, or her, patients, from onset of labor through birth and the initial postpartum interval. The main disadvantage of a long shift is that human performance tends to deteriorate as a long interval of work proceeds.

In New York, the tragic death of a patient prompted the state to adopt restricted resident duty hours in 1989. In turn, the Accreditation Council of Graduate Medical Education (ACGME) in 2003 issued national restricted resident duty-hour rules with two key provisions:

- Residents could work no more than 80 hours/week
- No single work shift could be longer than 30 hours, comprising 24 hours of primary patient responsibility followed by 6 hours for 1) educational activities and 2) providing follow-up care to patients already admitted (TABLE, page 10).

Lawmakers remain unconvinced, restive

Many state and national legislators don’t believe that ACGME resident duty-hour restrictions maximize the safety of patients, promote the health of residents, or optimize resident education. Based on their experience enacting legislation to improve safety by restricting the continuous work hours of truck drivers and airline pilots, many are committed to further restricting the duty hours of residents.

Consequently, in 2007, Congress instructed the Institute of Medicine (IOM) to prepare a report on the impact of resident duty hours on patient safety and resident health. Last month, the IOM released its report, with a call to restrict resident duty shifts to no longer than 16 continuous hours (TABLE, page 10).

ACGME has long been responsible for developing the rules on residents’ duty hours. But it will be difficult for the Council to resist the recommendations of the IOM because its report was commissioned by Congress. And, if ACGME doesn’t respond to the Institute’s recommendations, it’s possible that congressional leaders will move to draft bills

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that mandate those recommended duty-hour changes. (It’s worth noting that the Federal government provides, through annual passage of the budget by Congress, funding to pay the salaries and provide the employment benefits of most medical residents in the United States.)

Are physicians’ extended-duty shifts safe for patients? For themselves?

No randomized clinical trials have been conducted on the effect of short- or long-duty shifts on the performance of resident or attending ObGyns. Just one randomized trial of long-duty versus short-duty hours among medical interns has been reported.\(^1\) In that study, weekly work hours were about 85 in the “long” duty-hour group and 65 in the “short” duty-hour group. Interns in the long duty-hour group made significantly more mistakes than the interns in the short duty-hour group—respectively, 193 and 158 serious errors for every 1,000 patient-days worked (\(P < .001\)).

Observational studies have also shown that long duty-hour shifts are associated with an increased risk of a serious motor vehicle crash immediately after a long shift.\(^2\) Reasoning by analogy, a physician who has an increased risk of failing to properly operate a motor vehicle after a long shift is also likely not to be in the best condition to perform a surgical procedure.

The 16-hour shift is born

Scientists who study human performance are convinced that fatigue increases the risk of workplace error, and that, after 16 hours of work, most workers experience fatigue. This is the fundamental consideration in promulgating a 16-hour work rule. But patient handoffs from one physician to another when they are working short shifts can also increase the risk of workplace error. For residents and obstetricians in practice, in a hospital, no high-quality study clearly demonstrates that a 16-hour shift is safer for obstetrical patients than a 24-hour shift.

Regardless of that lack of high-quality data, vocal legislators, as well as some physician–leaders, are committed to reducing the length of the work shift in the hospital. Regulated short shifts are likely to be mandated for residents first and for attending physicians later.

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**Table:** ACGME rules, IOM recommendations on resident duty hours: How do they compare?

<table>
<thead>
<tr>
<th>Rule/recommendation</th>
<th>ACGME</th>
<th>IOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum length of shift</td>
<td>30-hour continuous shift</td>
<td>16-hour continuous shift</td>
</tr>
<tr>
<td></td>
<td>• 24 hours of primary responsibility</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>• 6 hours of educational activities and to follow up and transfer existing patients</td>
<td>16-hour continuous shift + 5 hours completely protected sleep time between 10 PM and 8 AM, with an additional 9-hour shift after the sleep interval</td>
</tr>
<tr>
<td>Mandatory time off-duty</td>
<td>4 days/month</td>
<td>5 days/month</td>
</tr>
<tr>
<td></td>
<td>• 1 day/week—no exceptions</td>
<td>• One 48-hour interval/month</td>
</tr>
<tr>
<td>Maximum number of consecutive night shifts</td>
<td>No restrictions</td>
<td>No more than four night shifts in a row—must be followed by 48 hours off-duty</td>
</tr>
<tr>
<td>Maximum hours/week</td>
<td>80 hours, averaged over 4 weeks</td>
<td>80 hours, averaged over 4 weeks</td>
</tr>
</tbody>
</table>

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**Instant Poll**

What do you think is the appropriate average duty-shift length for an ObGyn resident?

- 12 hours
- 16 hours
- 24 hours
- 36 hours
- 48 hours

For an ObGyn attending?

- 12 hours
- 16 hours
- 24 hours
- 36 hours
- 48 hours

Take the Instant Poll at www.obgmanagement.com. Find out if there’s a consensus on shift length when Instant Poll Results are published in an upcoming issue.
Welcome your new practice partner

It is likely that, within another 6 years, residents who have never worked a shift longer than 16 hours will be applying to join practices in which partners have substantial experience in working shifts that are 24 and 48 hours long. This scenario raises interesting questions that, for now, remain speculative:

- Will these new graduates adapt to the practice patterns of their senior partners and begin to work long shifts?
- Or will senior partners adapt their patterns and change their coverage schedule to work 12- to 16-hour shifts?
- Or will we see a model of blended coverage develop, in which some senior partners work long shifts and younger partners work short shifts?

Given persistent interest among legislators about the possible relationship between hospital and physician errors and the length of work shifts, it’s probable that long work shifts will be discouraged—either by legislation or by regulation from The Joint Commission. A trend toward short work shifts will need to be carefully balanced by greater teamwork and an emphasis on seamless hand-off from one physician to another at shift changes.

References
