Rules allowing longer shifts for first-year doctors signal a new approach to evidence-based medical education

April 5 2017

The long shifts and sleepless nights of resident physicians have been controversial since 1984, when 18-year old Libby Zion died in a New York hospital under the care of what her father alleged were overworked medical residents. Since then, regulations have been put in place to limit how long resident physicians (doctors who have completed medical school and are taking care of patients while undergoing further training) can work.

On March 10, the Accreditation Council for Graduate Medical Education (ACGME) increased the limit on work shifts for first-year physicians from 16 to 24 hours - allowing additional hours beyond that to ensure continuity and education, consistent with the limits in place for residents in their second year and beyond. In a Perspective published by the *New England Journal of Medicine*, David A. Asch, MD, MBA, a professor of Medicine at the Perelman School and of Healthcare Management at the Wharton School at the University of Pennsylvania, says that while the new rules may inflame ongoing controversies, a central message is that ACGME is raising the evidentiary standards for policy in medical education. "When a new drug is released to the market, it is because carefully conducted trials have demonstrated its safety and effectiveness," Asch says, "but when we set policy that affects how we train the physicians who might prescribe that drug, we often act as if evidence doesn't matter."

Asch suggests the new ACGME rules reflect a higher standard. He points to the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) and Individualized Comparative Effectiveness of Models Optimizing Patient Safety and Resident Education (iCOMPARE) trials as primary examples of the kind of research necessary to determine such policies.

To many people used to the convention of 8-hour work days and 40-hour work weeks, 24 hour shifts for doctors defy belief. But while some people assume that shorter shifts must be better (because who wants to be cared for by a sleep-deprived doctor), others recognize that shorter shifts mean more handoffs (and who wants to be cared for by a doctor who doesn't know you). Up until now, these regulations have attempted to balance these and other concerns, based on the best available scientific evidence about the effect of duty hours on patient care. However, that evidence has not included the large prospective trials normally required for high stakes medicine. In both the FIRST and iCOMPARE trials, residency programs were randomly assigned to have resident physicians either adhere to current ACGME duty-hour rules, or more flexible rules where the limits on shift length and time off between shifts are less constrained. The results of the FIRST trial were published in February 2016, also in the New England Journal of Medicine, and showed no negative effect on patient outcomes at hospitals where the flexible rules were used.

"Together, the FIRST and iCOMPARE trials offer an opportunity for medical education policy makers to rely on evidence from large-scale randomized trials in their real-life settings," said Asch, who is the principal investigator of the iCOMPARE trial, whose results are not yet analyzed. "Despite the enduring effect medical education policy has on patient care, until now it has not been subjected to anywhere near the same rigor required to put a single drug on the market."

Asch notes that although the ACGME's rules permit more flexibility in shift length, only some programs will make use of that flexibility and only some of the time. "Most clinical services don't need that flexibility, so this is one of those enabling policy changes."

"People have strong opinions about resident duty hours," Asch said. "The central value of trials is to move us beyond those opinions—often well-meaning opinions—to real evidence. We would never rely only on opinion when we approve a drug. Why should we settle for that when deciding how to train our physicians?"

Provided by Perelman School of Medicine at the University of Pennsylvania