iCOMPARE: An Intern's Perspective

he Individualized Comparative Effectiveness of Models Optimizing Patient Safety and Resident Education (iCOMPARE) study is a 1-year, randomized, controlled trial of a change in work hour standards for internal medicine interns. It compares a 16-hour limit on intern shifts with a longer, traditional overnight call period. For The Johns Hopkins Hospital Osler internal medicine residency program, the intervention involves up to 30-hour call shifts every fourth day. The trial went into effect at the start of my intern year in July 2015. The trial design parallels the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) trial for surgical interns. ²

During interview season, internal medicine programs sent e-mails to applicants about iCOMPARE and provided them with information during the interviews. Controversy arose regarding the lack of consent of interns or patients for participation in the study.³ I may not have signed a consent form, but my consent was implied by ranking The Johns Hopkins Hospital Osler program at the top of my rank list, knowing it was part of iCOMPARE.

If on interview day I had been provided with a consent form to sign in order to be considered, would I have turned it down? I wanted to train at a premier program. This was my choice. Having been part of the iCOMPARE trial during my intern year, I gained the experience of being in the experimental cohort and working up to 30-hour shifts. I completed all aspects of patient care from admission to discharge for many patients, and this may not have been possible had I not been part of the experiment. By the 30-hour mark, my discharge plan often was set, and none or few tasks were signed out to the covering intern. In addition to admitting and getting to know my patients, I was also motivated to know the other 15 to 20 patients on the team in significant detail beyond that needed by a night float covering intern. This knowledge also allowed for more informed decision making in caring for patients as the covering intern.

However, despite comfort with the absence of a formal consent process for interns, the issue of patient consent is an interesting conundrum. Would patients in the experimental cohort—if told about the study in detail—decide to go to a different hospital? Would

they feel that their health and safety were at risk if they were under the care of a physician on hour 30 versus hour 16 of a shift? And, would they be right?

Fatigue continues to be the major concern of the public, but for interns, fatigue will always be a factor, no matter how the 80-hour week is organized.⁴ Our profession requires strength—physical, mental, and emotional strength. Interns get fatigued. By the 28th hour, I feel the effects of that fatigue when talking with patients and staff and thinking through medical plans for my patients. Fatigue leads to errors, and I made errors over the course of my intern year. At the same time, I do not believe being constrained to a 16hour shift would have resulted in better care, as handoffs would have increased and these also lead to errors. Likely, I would still be fatigued. I felt more fatigued on my fourth straight 12-hour day, compared to one 30-hour shift followed by a day off and then an 8-hour shift. The FIRST trial to date has found no significant differences in terms of patient outcomes and resident satisfaction. I think the iCOMPARE trial will also find few if any significant differences.

The trial's impact extends beyond just its subjects and the patients treated. Our families and friends feel the effects of 30-hour shifts. For many families, children, and even pets, residents' prolonged absence may be difficult to understand. However, in the control arm, interns still worked 80-hour weeks and 12-hour-plus continuous shifts, including night shifts, and their personal life was likely not any better.

I do not seek sympathy from my predecessors who, before work hour limits were instituted, worked many more hours than I do. What I hope to convey is that fatigue, patient outcomes, and the impact on our families will be considerations no matter how the 80 weekly hours are allocated. I also think that researchers need to turn their attention to the patient-to-physician ratio, which has increased with growing access to inpatient care. With more patients and the same number of interns, the potential for mistakes may rise, fatigue will increase, and trainees' personal lives may further suffer. The solution will not be simple, as growth in training programs is costly, and turning patients away is also not an option. Changes to work hour limits fail to address the fact that patient lines are getting longer, and we need to figure out how the medical community should respond to this.

Matthew D. Alvin, MD, MBA, MS, MA

Resident Physician, Russell H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins Hospital

References

- iCOMPARE: Individualized Comparative Effectiveness of Models Optimizing Patient Safety and Resident Education. http://www.jhcct.org/icompare. Accessed January 18, 2017.
- Bilimoria KY, Chung JW, Hedges LV, et al. National cluster-randomized trial of duty-hour flexibility in surgical training. N Engl J Med. 2016;374(8):713–727.
- 3. Carome MA, Wolfe SM, Almashat S, et al. Letter to Office for Human Research Protections regarding the iCOM-

- PARE trial. November 19, 2015. http://www.citizen.org/documents/2283.pdf. Accessed January 18, 2017.
- 4. Bernstein L. Some new doctors are working 30-hour shifts at hospitals around the US. *The Washington Post*. October 28, 2015. https://www.washingtonpost.com/national/health-science/some-new-doctors-are-working-30-hour-shifts-at-hospitals-around-the-us/2015/10/28/ab7e8948-7b83-11e5-beba-927fd8634498_story.html?utm_term=.f3b3ffd3cdad. Accessed January 18, 2017.