Residents' Work Hours

TO THE EDITOR: The findings by Nuckols et al. (May 21 issue)[1] demonstrate the fallacy, to which the Institute of Medicine (IOM) and other organizations have yielded, of trying to address the issue of residents' work stress by simply reducing the exposure. Passively reducing residents' exposure to work stress is a relatively weak approach. It would be far better to actively manage their caseload and complexity, provide appropriate support staff, promote greater collegiality and teamwork, and design more sophisticated approaches to the sharing and handoff of patient responsibilities.

Perhaps most importantly, the issue of residents' work stress presents an opportunity to study in greater depth and breadth the larger issue of physicians' roles, responsibilities, and work–life balance. Consideration of this work stress also allows us to consider the ways in which we are selected, trained, and socialized to reject help, to maintain an aura of invincibility, and to feel guilty if we need to ask for backup from time to time. This broader consideration would be a more enduring, active, and effective approach to addressing this important problem, rather than simply tinkering around the edges with artificial and impractical time restrictions.

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1. Nuckols TK, Bhattacharya J, Wolman DM, Ulmer C, Escarce JJ. Cost implications of reduced work hours and workloads for resident physicians. N Engl J Med 2009;360:2202-15.

TO THE EDITOR: Nuckols et al. estimate the costs of implementing recent IOM recommendations for residency duty-hour limits. The authors provide a skewed perspective on how changes in rates of preventable adverse events may influence implementation costs. They exhaustively discuss how the cost to society of the IOM recommendations could be recouped if an 11.3% reduction in preventable adverse events were achieved. Why is there no corresponding discussion of the flip side of the coin — the unfavorable monetary impact of a possible 10% increase in preventable adverse events? This possibility, although included in Table 5 of the article, is conspicuously absent from the discussion.

Several hidden costs are also omitted from the calculations. As in an earlier article,[1] the authors do not consider the substantial time and labor expense of extra patient handoffs, the costs of systems for improving handoffs, or the technology and personnel costs of measuring and enforcing compliance with new guidelines. Start-up costs of recruitment, hiring, and training new employees are also omitted. These hidden costs are relevant considerations for academic medical centers.

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1. Nuckols TK, Escarce JJ. Residency work-hours reform: a cost analysis including preventable adverse events. J Gen Intern Med 2005;20:873-8.

TO THE EDITOR: On the basis of a cost-effectiveness analysis, Nuckols et al. conclude that recommendations of the IOM targeting a reduction in work hours and workloads for residents could prevent patient harm at reduced or no cost, from a societal perspective, if the recommendations are highly effective in reducing preventable adverse events. In our opinion, only conclusions on the perspective of teaching hospitals or patients can be drawn based on the authors' model. We believe that the societal model is incomplete because the impact of reduced work hours on residents' life and health-related quality of life is not included. Evidence cited by the authors in the introduction and the discussion section suggests that, as compared with reduced work hours, extended work hours may significantly increase the risk of motor-vehicle crashes and occupational injuries among residents.[1,2] In Switzerland, hospital directors invoked high costs to deny a reduction in working hours. Residents had to go on administrative strike to obtain a reduction of working hours.[3] Future models should also take into account the residents' perspective.

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and the risk of self-reported percutaneous injuries in interns. JAMA 2006;296:1055-62.
2. Barger LK, Cade BE, Ayas NT, et al. Extended work shifts and the risk of motor vehicle crashes among interns. N Engl J Med 2005;352:125-34.
3. Grob D. Regards croisés sur l'application aux médecins assistants de la Loi sur le travail dès le 1er janvier 2005. Lausanne, Switzerland: IEMS (Institute of Health Economics and Management), 2007. (Accessed July 23, 2009, at http://www.chuv.ch/bdfm/cdsp/67807.pdf.)

TO THE EDITOR: I write on behalf of the IOM committee that Blanchard et al. refers to in their editorial.[1] It is wrong to claim that the IOM recommendations[2] on residents' work hours are arbitrary and inflexible. In fact, they permit nonroutine exceptions for the safety of patients in unstable condition and for exceptional learning experiences, they are based on strong data from sleep research showing that human performance begins to deteriorate after 16 hours of being awake, placing patients and residents at risk for injuries, and they accommodate the educational needs of those specialties requiring the option of 30-hour shifts given appropriate fatigue-mitigating measures. They also allow programs to keep the current weekly limit of 80 hours on duty, giving sufficient time to achieve learning objectives. Finally, they encourage residency-review committees to establish, within recommended limits, specialty-specific standards for residents' workloads, supervision, and duty hours.

The committee's full set of recommendations can improve conditions for patient care and safety and resident education by providing for increased supervision, adequate sleep, and time for reflection.

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Dr. Johns reports serving on the boards of directors of Johnson & Johnson and AMN Healthcare. No other potential conflict of interest relevant to this letter was reported.

1. Blanchard MS, Meltzer D, Polonsky KS. To nap or not to nap? Residents' work hours revisited. N Engl J Med 2009;360:2242-4.
2. Ulmer C, Wolman DM, Johns MME, eds. Resident duty hours: enhancing sleep, supervision, and safety. Washington, DC: National Academies Press, 2008.

TO THE EDITOR: The editorial by Blanchard et al. does not mention that the current system of inpatient care survives only because of exploitative labor practices. Residents are asked to work longer hours at lower pay than is fair or even humane. Moreover, when challenged in the courts, the current residency system required a special act of Congress to protect it from successful litigation.[1] Although the article by Nuckols et al. provides important information, it should shock no one that more equitable labor conditions will actually cost employers money.

Regulation of residents' work hours is a moral concern.[2] Economic considerations may be a barrier to reform, but they do not by themselves constitute a rationale for maintaining the status quo. Work-hour reform may not be cost-effective, but defending the underprivileged never has been.

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1. Wright AA, Katz IT. Match point? N Engl J Med 2004;351:1165-7.
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TO THE EDITOR: Blanchard et al. clearly state the widely held concern that restricting residents' work hours during the evolution of clinical conditions is bad for both patients and trainees. Some flexibility to allow for following patients to the "natural pause points" and then allowing for longer breaks afterward would permit some redress of the fatigue issue and yet preserve the continuity of observation of the acute condition. For persons who argue that the normal sleep patterns of trainees should never be disturbed, it should be remembered that young adults frequently keep long hours for any number of personal reasons, and that some judicious exposure to long nights in the interests of patient care and education has not been shown to cause more harm than good.

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THE EDITORIALISTS REPLY: The major recommendations of the IOM committee as stated in Recommendation 7-1 of their report leave little room for flexibility, in contrast to the assertion by Johns in his letter. The committee has proposed a series of very specific rules and makes it clear that waivers from the recommended scheduling limits should be granted only temporarily in exceptional

circumstances. Currently, almost all residency-review committees will not consider requests for exceptions to the work limit of 80 hours per week. Programs can permit but not require residents to remain on duty to ensure patient safety. Residents themselves would therefore have to take responsibility for extending duty hours. Since the rules defining what is acceptable in the interests of patient safety are vague, in practice neither the residency programs nor the residents will wish to risk the consequences of being in violation of the Accreditation Council for Graduate Medical Education (ACGME) rules and will adhere rigidly to the prescribed recommendations.

Johns also states that the committee recommendations allow programs to maintain the current 80-hour weekly duty limit. However, the required 5-hour nap for each call day will count toward the 80 hours. Thus, on a typical inpatient overnight call schedule with 2 or 3 call days per week, 10 to 15 of the 80 hours will be allocated to naps and will not be available for patient care or to achieve learning objectives; this represents a substantial reduction in work hours.

Our editorial calls for careful studies of the impact of the IOM recommendations on patient safety, preventable adverse events, and other important patient care and educational end points. We continue to believe that such studies are essential before the recommendations are implemented. The IOM report itself acknowledges "how difficult it is to substantiate the conventional wisdom that reduced hours would clearly result in improved care." Six years after implementing the ACGME regulations of 2003, there is still no consensus on whether these changes have improved patient safety. The study by Nuckols et al. highlights our inability to predict accurately the cost of the latest IOM recommendations and their impact on preventable adverse events. In light of these considerations, we believe that it would be a serious mistake to not resolve the most important of these issues by careful scientific study before rushing to implement the IOM recommendations.

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Residents' Duty Hours and Professionalism

TO THE EDITOR: The Accreditation Council for Graduate Medical Education (ACGME) is currently reevaluating its 2003 rules[1] regarding duty hours, in light of the recent recommendations[2] from the Institute of Medicine (IOM) regarding additional limitations. Although the financial costs incurred in the initial implementation of the rules were substantial and the projected financial costs of further limitations are daunting, another cost, left unaddressed by the IOM task force, is even more troubling to many of us. Our institution has transformed the trainees in our core programs from dedicated professionals into shift workers.

When the duty-hour rules of 2003 went into effect, we scheduled our residents' duties to fully use the available hours. We took away their control, preventing them from making the decisions that characterize a professional. We now force them to leave a patient with whose treatment they are intimately involved or to cease the observation of an instructive surgical procedure midstream. It did not take long for this system to produce residents who would either walk away when their time had expired or else lie in order to violate the rules. Although we added "professionalism" as a training goal, we began giving our trainees the choice between abandoning a patient and lying.

We must return professional decision making to the residents. Of the 80 hours per week they are allowed to work, no more than 75 hours should be formally scheduled. These assigned hours need to be monitored, and violations should be subject to ACGME sanctions. The remaining 5 hours should be left purely to the discretion of the individual residents, to use however they see fit; there should be no expectation that they will provide clinical services to the program