

Resident Duty Schedules and Resident Education



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**Committee on Optimizing GME Trainee
(Resident) Schedules To Improve Patient Safety
Institute of Medicine**

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Major Issues for Consideration by IOM

- The education of physician trainees is a major determinant of patient safety and health care quality for decades to come
- The current 80 hour restriction is relatively new and has yet to be thoroughly examined for impact on education, patient care, and resident well-being.
- Trainee work hours must be considered in the context of education, patient care, and other factors by an appropriate body (such as ACGME), not by external observers of isolated elements

How Does AAMC Consider Duty Hours?

- Resident duty hours do not stand alone
- Hours are part of a matrix of tightly interrelated issues that influence educational value, including:
 - § quality of the GME program
 - § supervision of residents' patient care activities
 - § institutional support and oversight of GME
 - § quality of patient care
- Resident schedules and duty hours can be addressed meaningfully only by considering all of these issues.

Assessing the Literature on Duty Hours

- Most studies were done soon after 2003 implementation, before “steady state”
- Outcomes likely to be setting-specific and difficult to generalize
- There are multiple intervening variables that make it very difficult or impossible to draw clear cause-and-effect conclusions

Duty Hour Reduction Strategies at Mass. General and Brigham and Women's Hospitals

- Schedule changes, including expanded use of night floats;
- Elimination of less essential rotations at affiliated institutions;
- Elimination of some elective rotations;
- Deploying various technical strategies to improve efficiency;
- Expanding the number of residents, fellows;
- Recruitment of additional nurse practitioners, physician assistants, attending physicians;
- Transfer of specific resident/fellow responsibilities with less educational value to others, to try and maintain the educational content within fewer hours.

Impact of Duty Hour Restrictions on Education

Resident/Fellow survey study done at MGH and BWH to assess the educational impact of duty hours:

- Compared outcomes in AY 2003 vs. 2004 (pre/post duty hours limits); 1770 trainees, 60% response rate
- Six (6) fewer hours each week in direct patient care
- No significant decrease in the volume of key clinical experiences or in trainees' perceptions of their "preparedness"
- Perceived reduction in negative effect of fatigue on resident learning, satisfaction and well being, but
- Decline in overall satisfaction with education.
- Declines in the perceived quality of didactic sessions and availability of faculty for supervision

[Acad Med. 2006; 81(12): 1059-1068]; Arch Int Med. 2008; 168(5): 493-500].



Cautions Regarding Interpretations

- Substantial resources were invested in protecting against predicted negative effects—not all institutions will be able to make this investment
- Institutions with limited financial resources face even more difficult decisions and potential disruptions of their GME programs
- Negative impact on education may represent the “tip of the iceberg” since a steady state was not yet achieved

Potential Unintended Consequences of Further Duty Hours Limits

- Where reduced hours necessitate fewer residents on duty at any time, residents may be less available to their patients and families
- Greater use of “cross-coverage” may shift increased responsibility for data interpretation and decision making to a physician less familiar with the patient
- Compression the same amount of activity into a shorter period can increase the risk of overlooking details and reduce the opportunity to consider and consult about clinical decisions
- More hand-offs of responsibility between physicians can increase susceptibility to error
- Other members of the health care team can become overburdened and subject to increased fatigue.

Thoughts on the Unintended Consequences

“like all residents, she has been given responsibility for the care of a very ill patient during the current eight- or ten- or twelve-hour shift, but she didn’t take care of him yesterday and probably won’t take care of him tomorrow. She doesn’t know the full story of this patient’s recent illness, doesn’t know the long-term plans, and wasn’t part of the previous decision making to design the patient’s current treatment...”

new ACGME rules have effectively decreased the hospital’s resident physician workforce by 25 percent—in other words, a full quarter of them have gone missing.”

Gilsdorf, JR. ‘The Disappearing Doctors’; *Health Aff*, May/June 2008: 850-854



What We Hear From Residents

- Regret the loss of certain critical educational opportunities, such as the chance to participate in a rarely performed surgical procedure.
- Feel that continuity of care should sometimes take precedence over scheduling rules
- Have a sense of professional responsibility that prompts them to stay beyond their “shift” at times of peak clinical volume or acuity
- Object vehemently to the time spent in tracking and reporting their hours, even with a streamlined electronic system available

Recommendations

1. In the interests of medical education, resident well-being, and patient care quality, duty hours of residents should continue to be limited.
2. Refinements to the current duty hour limits should be made with caution and regard for potential unintended consequences. Change should be informed by research on sleep physiology and—importantly—by additional research on the impact of various duty hours interventions on educational outcomes, trainee well-being, and the quality/safety of patient care.

Recommendations, Cont'd

3. New research should address a number of questions:

- What are appropriate specialty- and/or site-specific schedules to support the goals of educational quality, patient safety, and resident well-being?
- What is the best configuration of teams in various settings, and how are clinical responsibilities appropriately assigned?
- What pace of change is appropriate?
- What resources are necessary in order to avoid harm to patients and enhance education while fully implementing the current duty hours limits (or additional limits that might be considered)?
- How should compliance best be monitored and enforced?
- Are there other ways, in addition to duty hour limits, to assess and avoid the negative impact of fatigue?
- Ways to quickly identify a threshold level of fatigue-related impairment akin to a breathalyzer test for alcohol?

Recommendations, Cont'd

4. Refinements to the duty hours limits need to take into account the aggregate funding levels for GME and the funding and regulatory constraints, especially with respect to Medicare, that may make it difficult to respond to further duty hour changes.

Recommendations, Cont'd

- 5. The ACGME should be the organization that considers modifications to the current rules, and enforces them.**
- Parallel sets of regulations from other bodies lead to additional bureaucracy and unnecessary confusion.
 - The ACGME considers schedules and hours in the context of the whole educational program and its institutional environment.
 - The ACGME employs multiple strategies for monitoring compliance and has effective mechanisms for enforcement. Unlike other entities, the ACGME is able to assess compliance—and to some extent the impact—in the context of both education and health care delivery.
 - The ACGME is committed to continual reevaluation of requirements, and is able to refine these as part of the periodic updating of program standards. Currently the ACGME is supporting innovative pilot programs to inform this process
 - Deliberations of the ACGME involve all the key constituencies of medical education and medical practice, and its staff has a nuanced understanding of the complexities of education in the clinical setting.

Closing Thoughts from a Colleague

“I know doctors who are able to maintain composure, grace, and a humanistic perspective no matter how fatigued or overworked they are...

I also know physicians who are cold and impassive even when well-rested...

In the ongoing debate about duty-hour reform, we can't forget that the care of the patient ultimately depends on the soul of the doctor, on his or her *ability* to care. In the growing of doctors, we will reap what we sow.”

Gaufberg, E. 'Time to Care'. Health Aff; May/June 2008: 845-49.





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