HOD ACTION: Council on Medical Education Report 7 adopted and the remainder of the report filed.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 7-A-11

Subject: Resident/Fellow Duty Hours, Quality of Physician Training, and Patient Safety

Presented by: Baretta R. Casey, MD, MPH, Chair

Referred to: Reference Committee C
(Robert J. Havlik, MD, Chair)

This report is a follow-up to Council on Medical Education (CME) Report 2-I-09, “Resident/Fellow Duty Hours, Quality of Physician Training, and Patient Safety,” as adopted by the American Medical Association (AMA) House of Delegates (HOD), which asked, in part, that our AMA “continue to monitor the enforcement and impact of the ACGME duty hour standards, as they relate to the larger issue of the optimal learning environment for residents, and monitor relevant research on duty hours, sleep, and resident and patient safety,” (Policy D-310.995, AMA Policy Database).

BACKGROUND

The death of 18-year-old Libby Zion at New York Hospital in 1984—and the work of her father, journalist Sidney Zion—brought the issue of resident/fellow duty hours before the public eye. Subsequently, in 1989, New York state instituted duty hour regulations for resident physicians, limiting weekly hours to 80 and shift length to 24 hours, and requiring the physical presence of attending physicians to supervise trainees.

At the national level, duty hours legislation was introduced in the US Senate by Sen. Jon Corzine and in the US House of Representatives by Rep. John Conyers, Jr. in 2003. It was in this environment that the Accreditation Council for Graduate Medical Education (ACGME) developed and implemented duty hour standards, which went into effect in July 2003. These required:

- An 80-hour weekly limit, averaged over 4 weeks, inclusive of all in-house call activities*;
- A 10-hour rest period between duty periods and after in-house call;
- A 24-hour limit on continuous duty, with up to 6 additional hours for continuity of care and education;
- No new patients to be accepted after 24 hours of continuous duty;
- One day in 7 free from patient care and educational obligations, averaged over 4 weeks, inclusive of call; and
- In-house call no more than once every 3 nights, averaged over 4 weeks.

* Note: Programs in some specialties (neurological surgery, for example) were permitted to apply to the ACGME for an 8-hour increase in weekly duty hours.

THE INSTITUTE OF MEDICINE CALLS FOR CHANGES IN DUTY HOURS

In September 2007, the Institute of Medicine (IOM) appointed the Committee on Optimizing Graduate Medical Trainee (Resident) Hours and Work Schedules to Improve Patient Safety, at the
request of Congress and the Agency for Healthcare Research and Quality. The Committee’s two
primary objectives were to:

- Synthesize current evidence on medical resident schedules and healthcare safety; and
- Develop strategies for implementing optimal work schedules to improve safety in health
care.

The Committee gathered testimony from the accreditation and certification community, organized
medicine, medical students, residents, patient safety advocates, and researchers on sleep and patient
outcomes, as well as program directors in primary and surgical specialties. Its report, released in
December 2008, did not recommend further reducing residents’ work hours from the ACGME’s
80-hour limit (as some had speculated) but called for:

- Reducing the maximum number of hours that residents can work without time
  for sleep to 16;
- Allowing overnight call only with a required 5-hour sleep/nap period;
- Increasing the number of days residents must have off; and
- Restricting moonlighting during residents’ off-hours.

Other recommendations called for greater supervision of residents, limits on patient caseloads
based on residents’ experience and specialty, increased interdisciplinary teamwork, and overlap in
schedules during shift changes to reduce the chances for error during handoffs. The report noted
that the major barriers to implementing these changes are cost and an insufficient health care
workforce to substitute for the time of residents. Nonetheless, the report called for action on all
recommendations within 24 months—that is, by December 2010.

ACGME RESPONSE TO THE IOM REPORT

At its February 2009 meeting, the ACGME Board of Directors endorsed a systematic review of
duty hours and the learning environment, with a goal of creating more appropriate, flexible
standards that recognize the challenges presented in the training of each specialty. Among its
activities in this regard were:

- A duty hours symposium, held in March 2009, to help the ACGME obtain input from
  multiple perspectives and stakeholders and reconcile these viewpoints to design standards
  that promote an optimal learning environment as well as patient safety and quality;
- A duty hours congress, held in June 2009, to help determine the best strategy for
  responding to the IOM’s recommendations. Testimony was heard from 44 of the more
  than 120 professional associations, program director organizations, and other groups that
  submitted formal position papers to the ACGME on this topic; and
- Three comprehensive reviews of the literature on duty hours and related topics, which
  helped inform the ACGME’s response to the IOM, as well as consultations with leading
  ethicists on the issues of professionalism surrounding duty hours.

In June 2010, the ACGME released its proposed duty hour standards, for implementation in July
2011; these were subsequently approved by the ACGME Board at its September 2010 meeting.
The standards retain the 80 hour per week limit, averaged over four weeks, but reduce shift lengths
for first-year residents to no more than 16 hours and set stricter requirements for duty hour
exceptions. In addition, they:
• Specify in greater detail than the existing standards the levels of supervision necessary for first-year residents;
• Set higher requirements for teamwork, clinical responsibilities, communication, professionalism, personal responsibility, and transitions of care;
• Establish graduated requirements for minimum time off between scheduled duty periods;
• Expand program and institutional requirements regarding patient care handovers; and
• Call for alertness management and fatigue mitigation strategies to ensure continuity of patient care and resident safety.

An analysis of the potential cost implications of these changes posted on the ACGME Web site arrived at a figure of $380 million annually (in 2008 dollars); the IOM estimated $1.7 billion per year for the changes it recommended in its report.

RESPONSE TO THE ACGME’S JULY 2011 STANDARDS

After releasing the draft standards in June 2010, the ACGME called for additional public comment over the succeeding 45 days. The AMA was among those providing comments, via a letter collating input from the AMA Resident and Fellow Section, Young Physicians Section, Section on Medical Schools, and Council on Medical Education (Appendix 1). The AMA expressed its approval of the standards, “which strike a balance among the many differing opinions on duty hour restrictions” as well as the need to balance effective training for physicians with improved patient safety. The AMA also commended the ACGME for “recognizing that it is not only the hours that resident physicians are on duty, but also their overall experience and level of training that play roles in physician performance.” In addition, the AMA applauded the ACGME “for not accepting verbatim” the IOM’s duty hour recommendations - in particular, the controversial mandatory “nap period” during overnight shifts.

After the comment period closed, the ACGME task force reviewed and considered comments submitted by more than 1,000 interested parties sharing a range of perspectives. Based on these comments the task force and the ACGME Requirements Committee made modifications in the proposed standards before presenting them to the Board for final approval.

OSHA REGULATION OF RESIDENT/FELLOW DUTY HOURS

Meanwhile, as the ACGME standards were becoming crystallized, the Occupational Safety and Health Administration (OSHA) received a petition calling for OSHA oversight of resident/fellow duty hours as an issue of worker safety. In their September 2010 letter, the Committee of Interns and Residents, American Medical Student Association, and Public Citizen argued that resident/fellow health and well-being were endangered by existing ACGME rules and that OSHA regulation was needed. The January 2011 Supreme Court decision that resident physicians must pay Social Security taxes was also cited by Public Citizen as additional evidence that OSHA’s involvement in this arena is warranted.

A similar request for OSHA regulation by these groups was rejected by OSHA in 2002. However, in its fall 2010 response, OSHA wrote, “We are very concerned about medical residents working extremely long hours.” The AMA (see Appendix 2) and other member organizations of the ACGME have written letters to OSHA to express strong support of the ACGME and its system of oversight, arguing that it is impossible to separate duty hours from the overall educational and clinical environment.
THE ISSUES

As in the past, a number of issues continue to rise to the forefront during any discussion of duty hour limits, including:

- Patient safety—From the patient’s perspective, having one physician dedicated to one’s care is optimal; patients, however, also want well-rested physicians, so a balance between continuity and appropriate rest must be maintained.

- Preparedness for practice—Are physicians training under current duty hour limits as well-prepared for the real-world rigors of practice as their predecessors? It may be that patient safety in the long term, as current trainees enter independent practice, is being sacrificed for the sake of short-term gains during residency training.

- Flexibility—It is a given that different people learn in different ways, and at different rates. The ACGME’s new regulations recognize this (through, for example, limited shift lengths for first-year residents), but additional flexibility in residency education may be warranted to allow for a more individualized, learner-centric approach to medical education.

- Biologic variation—Related to flexibility is the argument that different people have different tolerances for sleep deprivation and fatigue. These differences may be related to one’s choice of specialty as well, with individuals more willing and able to withstand long periods without sleep self-selecting by choosing, say, a career in a surgical field.

- Workload—The limits for the number of hours worked may be set, but the number of patients is not so easily controlled. With increased use of night-float and at-home call, fewer residents may be responsible for more patients; without adequate supervision, this can be a recipe for disaster.

- Handoffs—Teamwork, interdisciplinary communication, and appropriate electronic systems are essential to ensuring safe, informative handoffs, which have become even more critical as the lengths of shifts have decreased and the frequency of handoffs has risen.

- Professionalism and personal responsibility—The unintended consequence of the shift-work mentality must be addressed; the requirements of patient care and devotion to one’s education must supersede the resident’s personal needs. At the same time, professionalism also extends to the resident’s honest, accurate reporting of actual hours worked.

- Resident physician well-being—Residents who have trained since duty hour limits were implemented are more satisfied with their work-life balance and less susceptible to burnout and depression. We do not know, however, whether these gains have come at the expense of other “competing goods” (quality of education, continuity of care).

- Costs—As health care reform advocates urge cost containment, what are the financial consequences of further limiting duty hours, and which entity (or entities) should bear these costs?

Other questions that may merit further study and research:

- What has been the impact on the workload and learning of students?
- What has been the impact on attendings? Will duty hour limits extend to practicing physicians as well (as in Europe)? A December 2010 New England Journal of Medicine article, for example, calls for patients awaiting elective surgery to be “explicitly informed about possible impairments induced by sleep deprivation and the increased risk of complications.”
- Will some specialties extend the length of training programs because of the need for more clinical exposure? If so, what effect does this have on workforce? Will students be less likely to choose a field with such extended residency periods?
• Will the transition into real-world practice (in which duty hour limits do not apply) become more difficult for young physicians who trained with duty hour limits?

• Do residents learn to function in a sleep-deprived environment and to recognize and compensate for their limits?

In conclusion, as we re-examine the pivotal event that brought us to where we are today (the death of Libby Zion), most believe that inadequate supervision was a greater contributing factor than resident fatigue to her death. In the court of public opinion, regarding the ACGME’s regulations, the most easily quantified metric of duty hours gets all the press, but appropriate, individualized supervision and a better learning environment should be the real focus of our attention. Despite many questions that will require more data and longer-term analysis, the 2011 iteration of duty hour requirements is a well-considered alternative to the IOM recommendations and the 2003 standards. These new requirements represent an advance beyond simply counting hours towards a focus on patient safety and the quality of education, supervision, and patient care, both today (during training) and tomorrow (in practice).

RECOMMENDATIONS

The Council on Medical Education, therefore, recommends that the following recommendations be adopted and that the remainder of this report be filed.

1. That our American Medical Association (AMA) continue to monitor the enforcement and impact of the Accreditation Council for Graduate Medical Education duty hour standards, as they relate to the larger issues of patient safety and the optimal learning environment for residents, and to track relevant research on duty hours, sleep, and resident and patient safety, with a report back no later than the 2014 Annual Meeting of the AMA House of Delegates (HOD). (Directive to Take Action)

2. That our AMA (through the AMA GME e-Letter and other communications) encourage publication of studies (in peer-reviewed publications, including the ACGME’s newly developed Journal of Graduate Medical Education) and promote educational sessions about the impact of duty hour limits, extended work shifts, handoffs, protected sleep periods during in-house call, sleep deprivation, and fatigue on patient safety, medical error, continuity of care, resident well-being, and resident learning outcomes. Further, our AMA should facilitate wide dissemination of this information to the GME community. (Directive to Take Action)

3. That our AMA strongly advocate to all Designated Institutional Officials (DIOs), program directors, resident/fellow physicians, and attending faculty the importance of accurate, honest, and complete reporting of resident duty hours as an essential element of medical professionalism and ethics. (Directive to Take Action)

4. That our AMA ensure that the medical profession maintains the right and responsibility for self-regulation, one of the key tenets of professionalism, and categorically reject involvement by the Occupational Safety and Health Administration in the monitoring and enforcement of duty hour regulations. (Directive to Take Action)

5. That our AMA lobby against any regulatory or legislative proposals to limit the duty hours of practicing physicians. (Directive to Take Action)
6. That our AMA collaborate with other key stakeholders to educate the general public about the many contributions of resident/fellow physicians to high-quality patient care and the importance of trainees’ realizing their limits (under proper supervision) so that they can competently and independently practice under real-world medical situations. (Directive to Take Action)

7. That our AMA urge that the costs of duty hour limits be borne by all health care payers. (Directive to Take Action)

8. That our AMA encourage the American Osteopathic Association to monitor duty hours and related issues in collaboration with the ACGME. (Directive to Take Action)

Fiscal Note: $500 for staff time.