ASSOCIATION OF
AMERICAN
MEDICAL COLLEGES

AAMC Policy Guidance on Graduate Medical Education

Assuring Quality Patient Care and Quality Education

October 2001

Background

Graduate medical education (GME) comprises the second phase of the formal educational process that prepares doctors for medical practice. GME is required of all medical school graduates seeking full medical licensure and board certification in one of the specialties and/or subspecialties of medicine. This phase of medical education is, of necessity, conducted primarily in clinical settings, and requires direct participation by residents in the delivery of patient care services.

Conducting high quality GME has always been a demanding undertaking. Ensuring an optimal learning environment and creating a proper balance between education and patient care activities have been the principal challenges to medical educators. In recent years, those challenges have become increasingly formidable due to the impact that the myriad changes in the health care delivery system have had on the patient care environments in which GME is conducted.

Certain of these changes have presented particularly difficult challenges for GME. Of special note, the shortened length of hospital stays, the increased emphasis on ambulatory care, the reductions in support staff, and the increased acuity of the average in-patient have placed increased demands on resident time and energy. These changes, in conjunction with the long hours that residents are required to be on duty, have raised mounting concerns that resident fatigue may be posing a threat to the quality of patient care (including patient safety), to resident well-being, and to the quality of the GME experience.

The AAMC has long advocated limitations on resident duty hours. However, the Association believes that focusing on excessive duty hours is to focus on the symptoms, not the root cause of the problems affecting GME. If fundamental improvements are to be made in the quality of residents' education and in the quality of residents' life, the academic community must rededicate itself to the core educational mission of GME, and focus its attention on enhancing the learning environments where GME is conducted.

Unfortunately, the academic medicine community has not yet succeeded in uniformly addressing the concerns about the nature of modern residency training. Specifically, not all training programs have restructured their residents' duty schedules in ways that deal effectively with the growing public apprehension about the potentially adverse impact that resident fatigue may have on the quality of patient care provided by resident physicians. It is not surprising, therefore, that calls for limiting resident duty hours through government regulation are becoming more frequent and more strident.

The Accreditation Council for Graduate Medical Education (ACGME) plays a key role in improving the quality of GME in this country. Members of the Council include all of the key national stakeholder organizations.[1] Each of the 26 specialty-specific Residency Review Committees of the ACGME is composed of nationally recognized experts and experienced educators in their discipline. As an accrediting body, the ACGME provides the means whereby the profession reaches consensus about the minimum standards for residency training, monitors compliance with those standards, and sanctions deviations from them.

The vigilance with which the ACGME scrutinizes adherence to its standards and the rigor with which it enforces compliance with its requirements are crucial manifestations of the medical profession's commitment to self-regulation. Sustaining society's trust in the nation's GME system necessitates strong support from all segments of the profession for the ACGME's efforts to strengthen its regulatory role. No matter how effective the ACGME is in fulfilling its role, however, the success of the GME enterprise ultimately depends upon the commitment of the individuals and institutions overseeing GME programs to ensure that their programs are of high quality.

As sponsors of most of the nation's GME programs and as the principal training sites for the great majority of residents, the member institutions of the AAMC have a special responsibility to provide leadership in this critical arena. The guidance contained in this document address key issues requiring attention by teaching hospitals, medical schools, and GME program leadership and faculty. They are:

A. Institutional Oversight and Program Support
B. The Educational Program
C. Supervision of Residents in Patient Care
D. Resident Duty Hours

Adherence to these guidelines is essential for ensuring quality patient care in teaching settings, for minimizing the risk to patient safety, for optimizing the quality of resident education, and for reducing the threats currently posed to resident health and welfare.

[1] American Board of Medical Specialties, American Hospital Association, American Medical Association, Association of American Medical Colleges, and Council of Medical Specialty Societies

Institutional Oversight and Program Support

The sponsors of GME programs (e.g., teaching hospitals, medical schools, regional consortia) have ultimate responsibility for the management and quality of all GME-related activities conducted under their purview. In maintaining full accreditation for their programs, sponsors of GME must comply with the Institutional Requirements promulgated by the ACGME. These requirements overarch the ACGME's specialty-specific Program Requirements and represent the medical profession's consensus as to the minimum levels of oversight and support required for GME programs to meet expectations. AAMC member institutions can and should strive to exceed those standards.

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- Institutional sponsors of GME should exercise strong, centralized oversight for all of their GME programs; to do so requires establishing appropriate mechanisms and committing the necessary resources to assure that each program meets its educational goals and remains in compliance with applicable national, state, and institutional policies and regulations.

- Institutional sponsors of GME should authorize a single individual at a sufficiently high level in the organization to take overall responsibility for the quality of all GME programs, and for ensuring that the interests of the GME mission are well represented within the institution's top leadership.

- The institution's governing board should have explicit mechanisms for monitoring the institution's GME activities, and for assuring itself that the institution is fulfilling its responsibilities to serve the interests of patients, residents, and the public.

- Institutional sponsors and individual residency programs should have written policies and established procedures specifying the level of supervision attending physicians are required to exercise over residents at the various stages of their training and at the various sites of training (e.g., in-patient units, doctors offices, ambulatory treatment centers).

- Institutional resources must be adequate to create and sustain the safe and supportive learning environments required for high quality graduate medical education.

The Educational Program

Some 800 institutions sponsor approximately 8,000 individual GME programs. To remain accredited, a program must comply with the relevant set of minimum educational requirements established by the ACGME for each of the respective primary specialties and their various subspecialties. The faculty of individual programs is responsible for:

a) establishing specific learning objectives that are consonant with ACGME requirements and with the expectations set forth by specialty boards and specialty societies;

b) designing and implementing the educational program to meet those objectives;

c) judging the progress of residents in achieving the established learning objectives; and

d) determining whether a given resident has, at the completion of training, acquired the competencies and demonstrated the professional values and attitudes required for delivering quality medical care.

To fulfill these responsibilities, institutions and program directors must insure that all residents have appropriate educational opportunities within a supportive environment.

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- Resident physicians must have opportunities to participate, under supervision, in patient care activities of sufficient variety and with sufficient frequency to achieve the competencies required by their discipline.

- Resident physicians must have opportunities to exercise, under supervision, graded, progressive responsibility for the care of patients, so that they can learn how to practice their specialty and recognize when, and under what circumstances, they should seek assistance from colleagues.

- Resident physicians must have opportunities to participate in required conferences, seminars, and other non-patient care learning experiences and must have sufficient time to pursue the independent, self-directed learning essential for acquiring the knowledge, skills, attitudes, and behaviors required for practice.

- Appropriate, specialty-specific assessment methodologies must be used to document attainment of the knowledge, skills, attitudes, and behaviors required for practice, before attesting that a resident has satisfactorily completed the program.

Supervision of Residents in Patient Care

Quality graduate medical education can occur only in settings that are characterized by the provision of high quality patient care. As a practical matter, preparing future practitioners to meet patients' expectations for excellence requires that they learn in environments epitomizing the highest standards of medical practice. Even more important, as an ethical matter, justifying the participation of residents in the care of patients requires adherence to uncompromised standards of quality medical care.

Fulfilling these obligations necessitates the availability of program faculty to supervise all patient care services provided by resident physicians. Although residents are medical school graduates, they are by definition insufficiently experienced to practice their intended specialty or subspecialty independently. The intensity of supervision required is not the same under all circumstances; it naturally varies by specialty, level of residency training, the experience and competency of the individual resident, and the acuity of the specific clinical circumstance. Under circumstances in which urgent judgments by highly experienced physicians are typically required (e.g., certain critical care units, emergency rooms, obstetrical services, high-level trauma centers, certain surgical units), meeting this obligation requires that attending physicians be immediately available on site at all times. Under other, less precarious circumstances, attending physicians can provide adequate supervision off site as long as their physical presence within a reasonable time (e.g., 30 minutes) can be assured in case of need.

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- The faculty physician of record is responsible for the quality of all of the clinical care services provided to his or her patients.

- All clinical services provided by resident physicians must be supervised appropriately to maintain high standards of care, safeguard patient safety, and ensure high quality education.

- Individual residency programs should have written guidelines governing supervision of residents; these guidelines will vary according to specialty, intensity of patient care responsibilities on a given rotation, level of experience, and educational requirements.

- Program faculty directly responsible for the supervision of patient care services provided by resident physicians must be as available to participate in that care as if residents were not involved; the presence of residents to "cover" patients on in-patient services or to provide care in ambulatory settings does not diminish the standard of availability required of the physician of record.

- Program faculty are responsible for determining when a resident physician is unable to function at the level required to provide safe, high quality care to assigned patients, and must have the authority to adjust assigned duty hours as necessary to ensure that patients are not placed at risk by resident physicians who are overly fatigued or otherwise impaired.

Resident Duty Hours

Each of the 24 certifying boards composing the American Board of Medical Specialties determines the minimum number of years of graduate medical education required before a resident may apply for examination. The years of training required reflect the judgments of experts in each specialty about how long, given reasonable duty schedules, residents need to acquire the expected competencies in that specialty. Thus, residents enrolled in a well-designed educational program with appropriate patient care opportunities and adequate institutional support should be able to meet all educational objectives without recourse to harsh workloads.

For purposes of discussion, one can consider the totality of time available to residents as being composed of the following:

a) scheduled on-duty time required to participate in those direct patient care responsibilities deemed necessary to achieve specialty-specific learning objectives;

b) scheduled on-duty time required to participate in the residency program's organized teaching activities (e.g., conferences, seminars, grand rounds);

c) scheduled on-duty time spent, as a matter of course, delivering patient care services of marginal or no educational value;

d) off-duty time required to meet educational objectives through independent, self-directed learning; and

e) off-duty time required for rest, recreation, social obligations, and personal and family needs.

Given that the primary purpose of GME is educational, the patient care services that a resident is required to perform while on duty should be determined primarily by the resident's educational needs. Moreover, a resident's patient care responsibilities should be arranged so as not to preclude participation in the program's organized teaching activities. However arranged, the overall number of on-duty hours assigned must be limited to accommodate the residents' need for off-duty time. Within any allotment of overall duty hours, limits also must be placed on the duration of uninterrupted patient care responsibilities, taking into account the intensity of the work involved, in order to avoid excessive fatigue.

Disagreement still exists among medical educators about whether the reasoning in the foregoing paragraph constitutes a cogent argument for placing an upper limit on resident duty hours. Some argue passionately and reasonably that no limits can be justified, believing instead that the ethic of the medical profession and the need to ensure continuity of care run counter to setting time limits for patient care responsibilities. Others argue just as passionately and reasonably that some limits must be established in order to avoid undue fatigue and, as just noted, to respect the residents' need for sufficient personal time. After years of debate, we believe that prudence favors the

establishment of a reasonable upper limit. We conclude, along with countless others, that 80 hours per week constitutes such a reasonable limit, albeit a generous one by any conventional standard. Experience indicates that this allotment of on-duty time, properly distributed, provides sufficient flexibility both to satisfy educational and patient care needs and to safeguard patient and resident well-being.

Limiting required duty hours does not imply that residents must cease providing essential patient care services at arbitrary cut-off times. Priority must always be given to patient safety and well-being and to avoiding transferring patient care responsibilities to others at inappropriate times in the continuum of care (e.g., during an operative procedure, in the midst of a rapidly evolving clinical event). A tired resident who is intimately familiar with a sick patient is often better able to provide quality care than is a fully rested resident who is unfamiliar with the details of the case. But by the same token, invoking continuity of care as a rationale for routinely requiring residents to provide patient care services while fatigued invites substandard care and risks patient safety. Moreover, residents must acquire the ability to recognize when their competency is impaired by fatigue and must gain experience with transferring responsibility for the care of their patients to trusted colleagues.

AAMC Policy Statements

- Institutional sponsors and individual residency programs should have written guidelines governing resident duty hours; these guidelines will vary according to specialty, intensity of patient care responsibilities on a given rotation, level of experience, and educational requirements.

- In no case should residents be scheduled to be on duty more than 80 hours in any week. On typical clinical rotations, residents should not be scheduled to be on duty for more than 24 hours consecutively; continuous duty in high intensity settings (e.g., emergency rooms, critical care units) should, in general, be scheduled for no more than12 hours. These guidelines must be applied with sufficient flexibility, as noted above, to ensure that thorough exchange of information and proper transfer of patient care responsibilities occurs whenever residents who are going off duty sign over the care of patients to other residents or to teaching physicians.

- Duty-free intervals between periods on call should be at least 8 hours long.

- If moonlighting is authorized, the time spent doing so should be included within the parent program's duty hour limits; unauthorized moonlighting should be prohibited.

- Residents should not be required to have overnight, on-call duty more frequently than one night in three, as averaged over 4 weeks.

- Residents should have at least 24 consecutive hours free of all assigned duty every seven days.

- The on-duty time residents spend delivering patient care services of marginal or no educational value should be minimized.

Summary

The Policy Statements set forth in this document address issues requiring urgent attention by the academic medicine community. The quality of resident education and the well-being of residents themselves are among our most solemn professional obligations. Persistent calls for reforming GME to better meet these obligations have come both from within our community and from external sources. We must heed these calls, not because government regulation is the likely alternative if we do not, but because it is the right thing to do.

The AAMC recognizes that implementing these policies will require many sponsoring institutions and individual training programs to allocate additional resources to their GME mission. Finding the necessary resources in an era of significant financial stress will undoubtedly pose a major challenge for more than a few. Unfortunately, that challenge is made even greater by the reluctance of many payers of patient care services to assume their fair share of GME costs and by the presence of regulatory constraints within current public programs affecting GME. While the AAMC will continue to call for appropriate funding for all GME-related activities and for relief from overly restrictive regulations, sponsors of GME programs should find these policy positions helpful in setting priorities for the expenditure of existing resources.

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