Have Accreditation Council for Graduate Medical Education initiatives improved the education of cardiology fellows?

Accreditation Council for Graduate Medical Education Initiatives Improve the Education of Cardiology Fellows

Jeffrey T. Kuvin, MD

Training cardiovascular specialists in the present era is highly complex. The list of topics and procedures continues to grow; the required knowledge base for providing cutting-edge clinical care and passing examinations is increasing; and technologies and research are advancing rapidly. Cardiology fellows face a changing template of demands from training programs, governing bodies, professional societies, and potential employers. At the completion of the cardiovascular fellowship training process, it is imperative that graduates are highly capable and complete physicians. Certainly, strict accreditation and adjudication of the fellowship training process are necessary to ensure the highest-quality training of cardiologists and other healthcare providers.

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Established in 1981, the Accreditation Council for Graduate Medical Education (ACGME) is a private, not-for-profit organization that evaluates, accredits, and oversees postgraduate medical trainees in nearly 8400 training programs representing 126 specialties and subspecialties in the United States. Cardiovascular fellowship programs represent a large portion of these trainees. There are presently 177 general cardiology fellowship programs with 2362 filled positions. In addition, there are 95 electrophysiology and 130 interventional subspecialty cardiology fellowship programs with 173 and 290 filled spots, respectively. The member organizations of ACGME include the American Board of Medical Specialties, American Hospital Association, American Medical Association, Association of American Medical Colleges, and the Council of Medical Specialty Societies. Each member organization appoints 4 members to the Board of Directors, which also includes 2 resident members, 3 public directors, the chair of the Council of Review Committee Chairs, and a federal representative. The ACGME has 28 review committees: 1 committee for each of the 26 specialties, 1 for the 1-year transitional-year program, and 1 for institutional review. Before the ACGME, postgraduate medical training was managed by the Liaison Committee for Graduate Medical Education, which was established in 1972.

The mission of the ACGME is to improve health care by "assessing and advancing the quality of resident physicians’ education through accreditation.” In essence, the goal of the ACGME is to assure the public that the ACGME maintains the quality of the learning and training experience for both the learner and the teacher. The ACGME remains proactive in the pursuit of excellence in education and has launched several specific projects to facilitate improvements in the training of physicians, including the measurement of outcomes. The
Outcomes Project is an exemplary ACGME initiative and has been a major focus for the past few years. The Outcomes Project focuses on long-term educational outcomes in the accreditation process, rather than simply monitoring the ability of training programs to educate. Before the introduction of this project, assessment of postgraduate training sites focused on the processes, resources, and reputation of individual programs but did not adequately assess whether programs were turning out truly well-trained, competent physicians. For example, in the past, the definition of a cardiology trainee’s competence was variable, and physicians would often be labeled “competent” on completing the requirements of an individual fellowship program and perhaps passing a board examination. Thus, the process was without significant oversight and standardization. In addition, limited, if any, attention was paid to workload, duty hours, training environment, and other key issues.

The vision for the ACGME Outcomes Project was to identify specific issues regarding the overall practice of medicine in a changing healthcare environment. As a result of this major ACGME initiative, fellowship programs across the country have implemented new curriculum and evaluations that not only address competence in knowledge and patient care but also assess the areas of professionalism, systems-based practice, performance improvement, and communication. Thus, a strong case can be made that the Outcomes Project and other ACGME initiatives described here that focus on such areas as comprehensive evaluations, curriculum, duty hours, and accreditation have significantly improved cardiovascular fellowship training and should continue to play a major role in postgraduate medical education.

### Does Competency-Based Training Result in Competent Cardiovascular Trainees?

The assessment and evaluation of physician competency are critical for cardiovascular fellowship programs and, for that matter, all physicians. In general, medical competency is defined as having the ability to understand material, to integrate knowledge into clinical practice, to appreciate context and relationships, and to use skills appropriately. Thus, a competent physician requires a strong knowledge base in addition to other skills to practice medicine. No longer is it sufficient to only prove a certain level of medical knowledge to be labeled a competent physician. The concept of the competent physician has now evolved to include character development, maturation, and the ability to work in a complex medical environment. This is the basis for the ACGME’s focus on a competency-based approach to medical education, and the ACGME should be commended for bringing this idea to the forefront of postgraduate education.

The notion that a physician is competent to practice medicine is complicated and often means different things to different people. Numerous agencies, groups, and individuals are interested in defining physician competence, including payers; hospitals; local, state, and national organizations; and patients. Frequent questions regarding competency arise in the cardiovascular training environment. Should competency be based primarily on grades, evaluations, in-service examinations, and board scores or on number of procedures performed? How should programs define quality and integration of knowledge? How should programs assess communication, professionalism, attitudes, and behavior? Who should ultimately be responsible for determining trainee competence—teachers, mentors, boards, payers, or patients? These questions and others come up when defining competency, and nowhere is the issue of aptitude more critical to understand than in the training environment. Graduating fellows entering the world of cardiology must function within a vast healthcare system, working with other physicians and healthcare providers to serve patients and the community. In addition, in this era of pay-for-performance, healthcare plans now require that practicing physicians demonstrate improvement in quality of clinical care over time. Fellows must learn how to continually refine their skills if they are to succeed in this increasingly demanding healthcare environment. Thus, defining and assessing competence in cardiovascular fellowship training are essential, and graduating physicians must be measured against established standards so that patients can trust their doctors’ care.

ACGME oversight helps to define and regulate fellowship training to ensure that competency standards are appropriate and achieved. The present ACGME model for assessing postgraduate medical education training competence has revolutionized the way that programs educate trainees. The ACGME defines competence with 6 broad skills, otherwise known as the ACGME “competencies.” These competencies include medical knowledge, patient care, professionalism, communication and interpersonal skills, practice-based learning and improvement, and systems-based practice (Table). The competencies provide an outline for a systematic approach to assess trainees, fellowship training programs, and faculty and to structure curriculum, evaluations, and other elements of training. In essence, the 6 competencies help the medical profession regulate itself, and the

### Table. The ACGME 6 Core Competencies

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Patient care</td>
<td>Compassionate, appropriate, and effective for the treatment of health problems and the promotion of health</td>
</tr>
<tr>
<td>Medical knowledge</td>
<td>Established and evolving biomedical, clinical, and cognate sciences and the application of this knowledge to patient care</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population</td>
</tr>
<tr>
<td>Interpersonal and communication skills</td>
<td>Effective information exchange and teaming with patients, their families, and other health professionals</td>
</tr>
<tr>
<td>Practice-based learning and improvement</td>
<td>Investigation and evaluation of patient care, appraisal and assimilation of scientific evidence, and improvements in patient care</td>
</tr>
<tr>
<td>Systems-based practice</td>
<td>Awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value</td>
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ACGME has played a significant role in bringing the issue of competence to the forefront. The competencies provide a consistent road map for training programs to follow so that decisions regarding content and education design are not left solely to individual programs and their training directors to adjudicate and judge. The competency-based philosophy of training requires programs to mix standard methods of teaching and evaluation with novel approaches such as incorporating practice improvement initiatives and self-evaluation processes into the training environment.

Thus far, integration of the ACGME competencies into medical training programs has provided much-needed guidelines and structure for training. Before the introduction of the core competencies, assessment of training sites focused on the processes, resources, and reputation of an individual program but did not necessarily assess how programs incorporated the necessary teaching of skills. Now, it is commonplace for training programs to develop and institute competency-based education and evaluations. This approach ensures that fellows are exposed to a broad-based curriculum and are evaluated to assess competence not only in knowledge but in all areas considered important for the practice of medicine. A 2003 survey of family medicine program directors suggested that nearly all were familiar with the competencies, and 90% had begun to implement competency-based evaluations in their programs. Two thirds of the program directors identified patient care as the most important competency and noted time and faculty development as primary implementation barriers to further integration of the competencies into daily training life.

Competency-based training is especially important in cardiovascular education, given the necessity of mastering a variety of technical skills and procedures, in addition to other clinical skills, before graduation. The competencies compel programs to provide a wide variety of experiences for trainees, incorporating training far beyond the technical details of how to perform certain procedures. For example, although cardiology fellows are expected to learn how to perform a left heart catheterization, the overall goals for education and training are far more encompassing. Thus, competency-based training in the cardiac catheterization requires, in addition to mastering the technical skills, training and evaluation that are centered around professionalism toward patients, families, and coworkers; compassionate practice; effective communication; practice improvement initiatives; and understanding the physician’s role in the larger healthcare environment.

The ACGME promotes a grounded approach to training, with appropriate integration of a variety of learning and teaching approaches, most of which are focused on improving patient care outcomes. Given the substantial impact that the competencies have had on the restructuring of curriculum and evaluation tools in fellowship, it is likely that the core competencies will result in improved fellow education and better patient outcomes. Although it is difficult to tease out whether adoption of the ACGME competencies will have a direct impact on education or patient outcomes, the directive to focus education on the competency domains, to enhance assessment of fellow performance, and to increase the use of educational outcomes for improving fellow education will likely help to integrate aspects of training that might otherwise have been overlooked. The overall goal of the ACGME Outcomes Project is to drive an evolution of process-oriented education to outcomes-based education. Exactly how the outcomes are measured in cardiovascular training remains to be seen.

The Evaluation Process: What Is the Score?

Timely evaluations are critical for trainee education because they provide real-time feedback and tools for self-reflection, analysis, and correction. The ACGME initiatives regarding competency-based evaluations are a step in the right direction toward improving the evaluation of cardiovascular trainees. Formative and summative evaluations are now becoming standardized to provide trainees and program directors with a systematic approach for analysis of broad-based physician skills. The evaluation process is no longer predicated on global evaluations of the trainee by a single evaluator or program director. Rather, the ACGME evaluation process incorporates feedback from numerous individuals, all designed to assess the trainee and the learning environment. The goal is to build evaluation tools into the everyday workflow so that evaluations are less burdensome and more helpful to the trainee and program.

Evaluations are now built around the core competencies in an effort to assess skill and the fellow’s ability to integrate into medical practice. Thus, a cardiology fellow is considered competent in a certain procedural area or skill on the basis of not only the actual performance of the task but also related issues such as professionalism, systems-based practice, and communication. In addition, new evaluation tools such as 360° evaluations, which are multisource assessments of fellows by nonphysician staff, including technicians, nurses, and patients, allow evaluation of trainees in their work environment and touch on issues regarding teamwork and relationships within the healthcare environment. Other tools such as peer-to-peer evaluations and clinical skills assessment allow training directors to provide more comprehensive assessments of trainees. These evaluation tools are also being adopted in the postfellowship practice.

An important aspect of training is the ability to recognize insufficiencies in particular areas and to improve one’s practice of medicine as a result of feedback and self-evaluation. Thus, part of the ACGME evaluation process includes performance improvement measures. Fellows are expected to evaluate their own clinical practices and to consider ways to improve deficient areas. Then, the program director, faculty, and trainees discuss methods to address the insufficiencies and consider opportunities for change. The entire program benefits from performance improvement initiatives, and it teaches trainees to advance their clinical practice through self-evaluation. Practice improvement initiatives also have been adopted in the postfellowship practice.
of medicine and are presently part of the American Board of Internal Medicine’s Maintenance of Certification process.

The ACGME attempts to prepare fellows for traditional evaluation of medical knowledge at or near the completion of the training program through national and society board examinations. These tests provide an objective measure of knowledge base and allow program directors to determine areas of strength and weakness in their fellowship programs. An in-service training examination for cardiology fellows, yet to be developed, would also be a useful tool to assess and address gaps in medical knowledge as trainees progress through fellowship.

Thus, incorporation of a wide variety of ACGME competency-based evaluation tools supports critical assessment during training and helps provide appropriate feedback to guide future learning while assisting in reflection, motivation, and setting of high standards. These competency-based evaluations do not necessarily ensure fellow competency; however, compared with prior assessments of competency (based largely on examinations and narrow evaluations of procedural skills), the present tools lead to a much more robust, comprehensive analysis of a fellow’s skill and ability to practice medicine in the present era.

**Fellowship Requirements and Curriculum: Are the ACGME and Training Programs on the Same Page?**

For each core program subspecialty in internal medicine, the ACGME provides a list of general requirements and an outline of topics from which to build a detailed curriculum. Although the ACGME does not provide extensive, detailed educational content for training programs, it strives to provide a framework from which the programs can expand. The common program requirements include items such as defining the responsibilities of the participating institutions, faculty, and fellows and assessing resources, duty hours, and evaluations. The subspecialty requirements, more specific to training cardiologists, refer to the appropriate duration of training, numbers of procedures, and specific program content. In addition to general cardiology fellowship guidelines, the ACGME provides structure and an understanding of what training is necessary to become a cardiovascular subspecialist.

In conjunction with a variety of organizations and societies, the ACGME periodically revises curriculum and procedural guidelines, and along with the American College of Cardiology Foundation Recommendations for Training in Adult Cardiovascular Medicine Core Cardiology Training (COCATS), they are generally implemented as a curriculum template by program directors. The ACGME gives fellows an idea of the minimum number of procedures and core curriculum a general cardiology fellow should achieve by the completion of fellowship training; COCATS provides specific targets for increasing levels of expertise (levels I to III) in specific domains within cardiology. Similarly, curriculum and procedural goals are addressed by the ACGME for the subspecialty years of electrophysiology and interventional cardiology.

In this case, the ACGME provides specific programmatic requirements for curriculum and procedures that are required to take place during the dedicated fourth year of training in an attempt to provide 3 years of training that is focused on general cardiology before a subspecialty focus. Thus, the ACGME guidelines set levels of expectations for fellows. Rather than individual societies or organizations mandating specific training requirements for fellows, most would agree that the ACGME guidelines are easily incorporated into training programs, are appropriate for fellows, and should remain the main source for defining fellowship criteria.

In procedure-based subspecialties such as cardiology, training programs need to balance the service needs of the institution with the educational value for the trainee. The ACGME guidelines help training programs determine the proper mixture of “service versus learning” and protect the learner and the educational environment from abuse. The ACGME recognizes the need for fellows to gain the necessary procedural skills but also understands the utility of experiencing the nonlaboratory, clinical practice of medicine such as participation in patient care in the coronary care unit or as a cardiovascular consultant. As part of the standard curriculum, the ACGME also strongly encourages an environment rich in academics and meaningful research. The ACGME is dedicated to academic fellowship training and requires that the learning environment consist of opportunities to participate in original research. For example, the ACGME mandates that a certain percentage of key faculty demonstrate scholarly activities and academic productivity such as publishing peer-reviewed manuscripts. Certainly, there is significant variation in fellow participation in research, depending on the academic strength of a specific program and institution, as well as the fellow’s own interest and drive. The ACGME recognizes this variation and strives to preserve dedicated time during fellowship for learning through scientific inquiry and discovery. This helps to preserve the mission of academic fellowship training, no matter what career path is ultimately taken.

**Duty Hours and Workflow: Help or Hindrance?**

The ACGME implemented limitations on duty hours for physicians in training in the United States in 2003 to improve the training environment and to promote safer patient care. These restrictions included limiting trainees to an 80-hour workweek; having at least 10 hours of rest between duty periods, a 24-hour limit on continuous duty, and 1 day in 7 free from patient care and educational obligations; and reducing in-house call to no more than once every 3 nights averaged over 4 weeks. These sweeping changes have had a significant impact on training environments, including cardiology fellowship programs, as well as patient care.

The association of work hour changes with mortality among hospitalized patients has recently been studied. An observational study of >300,000 patients admitted to 131 centers over a 5-year period was recently reported. After adjustment for patient comorbidities, time trends, and hospi-
tal location, duty hour reform was thought to be associated with improvement in 30-day mortality for patients with medical conditions such as myocardial infarction, congestive heart failure, gastrointestinal bleeding, or stroke. Improved quality of care for patients with acute coronary syndromes also has recently been linked to duty hour restrictions. In addition, Lockley and colleagues examined the physiological effects of extended work hours in a group of first-year medical house officers while training in the intensive care unit. There was a relationship between decreased medical errors and increased sleeping hours.

Although it is difficult to quantify precisely the direct effects of trainee fatigue on patient outcomes and medical errors, the ACGME duty hour rules have significantly affected the structure of training programs. In years past, many resident and fellow trainees, particularly in busy areas such as cardiology, logged >100-hour workweeks with frequent in-house on-call coverage. Now, the ACGME mandates greater attention to work hours and environment and assessment of physician fatigue. Although mandating duty hour restrictions may seem appropriate and straightforward, in many instances, it adds complexity to training and caring for patients. Trainees often are not able to witness or take part in critical aspects of patient care because of duty hour restraints, ultimately leading to increased handoffs of patients and related duties and the development of a shift work mentality. The care of many cardiovascular patients cannot be restricted to a specific timetable, and the training programs and ACGME are aware of this. Nevertheless, duty hour restrictions, implemented to protect the public and to improve the overall training environment, are meant to be a guideline for programs. The ACGME recognizes that the duty hour restrictions are not perfect for a learning environment and may have some negative impacts but are necessary in training today.

The impact of duty hour restrictions on training environments has thus far been mixed, although most programs would suggest that, despite a reduction in actual trainees’ hours, they are able to preserve the quality, quantity, and outcomes of medical education. Certainly, extended duty hours are not the only source of adverse medical events, medication errors, and fatigue among trainees; however, the present duty hour restrictions, coupled with an organized approach to medical education, seem appropriate for trainees. Many cardiology fellowship programs address the issue of duty hours by not requiring in-house on-call. This significantly reduces the official number of work hours, given that only the time spent on call on the telephone, traveling to the hospital, or actually in the hospital is counted toward the work hours tally.

Work hour issues can play a significant role in subspecialty, procedural-based fellowships of cardiology, including electrophysiology and interventional cardiology. These fellowship programs typically have only a few fellows who often are involved in lengthy procedures; thus, the workload is shared by only a few individuals, leading to longer work hours and greater fatigue. The ACGME also requires that program directors be vigilant about monitoring work hours and fatigue during training. In fact, some programs require trainees to sign their beepers in and out as a method of tracking work hours. In addition, hours spent moonlighting must also be counted in total work hours per week. Thus, fellows must be forthright with their program directors about time spent working outside of the training environment, and together, they need to monitor work hours.

The Accreditation Process: A Necessary Exercise

The accreditation process involves individual program audits and provides training sites with feedback as to how they are complying with the ACGME requirements. Accreditation is voluntary; however, programs require ACGME accreditation to receive graduate medical education funds from the Federal Center for Medicare and Medicaid Services. In addition, trainees must graduate from ACGME-accredited programs to be eligible to take board certification examinations, and many states require completion of an ACGME-accredited program for licensure. Accreditation involves measuring compliance with specific standards, and the findings are available to the general public. Thus, many people and organizations, including present and upcoming trainees, certifying boards, payers, and ultimately consumers and patients, rely on the outcome of the ACGME accreditation process. On average, the ACGME visits each accredited program every 3 to 4 years, and intervals between site visits range from 1 to 5 years. The frequency of site visits for some programs may actually be lengthened on the basis of the ability of a program to provide documentation of excellence in education and training. The ACGME field staff conducted nearly 2000 onsite visits this past year (ACGME annual report, 2006–2007).

Without the ACGME accreditation processes, there would be no minimum standard to guide training programs, which would ultimately harm training and education programs. ACGME oversight with accreditation visits has substantial beneficial effects on all postgraduate education. Certainly, upcoming site visits result in anxiety and substantial workload for training directors; however, most programs receive full accreditation. Program evaluations are based on written documentation of the activities of the program and an onsite visit and interviews with key personnel, including trainees. ACGME accreditation supports the evaluation of programmatic strengths and weaknesses, provides feedback for needed improvement, and allows comparisons with similar training environments. The ACGME site visit focuses on education content, support of trainee and staff research and academic pursuits, facilities, technology, and overall dedication to the learning environment. Like any accrediting organization, there is substantial pressure to be fair and appropriate to ensure uniformity in the measurements and analysis. The accreditation process allows self-evaluation and regulation with appropriate oversight and guidance while ensuring homogeneity and maintenance of quality.
Assessment and Learning Are Life-Long Processes

The ACGME initiatives as described help document competency and adequacy of training. To this point, however, there has not been a longitudinal tool available to support the learner during training and the life-long learner. Thus, the concept of a learning portfolio is taking shape within training programs, the learning portfolio would be competency based and a vehicle for identifying areas in need of improvement; it would be linked to education and self-assessment tools.

The foundation of a learning portfolio will be an electronic web-based, portable, private portal that will enable physicians to catalog accomplishments and to identify and follow areas that need improvement. A portion of the learning portfolio might also be used to select data to send to employers, payers, and licensing agencies, thus assisting the practitioner in the lengthy task of collating and gathering this important information. The ACGME has begun to build a competency-based learning portfolio for trainees focused on learner-centered education/training and evaluation. In a sense, the ACGME helps level the playing field across all training programs by setting standards. Without the ACGME, there would be no significant uniformity in training, leaving professional societies and individual institutions to govern programs, likely resulting in a highly heterogeneous training portfolio across fellowship programs and an education free-for-all.

Certainly, not all ACGME policies and requirements are without controversy, and some have not been well received by program directors and fellows alike. For example, duty hour restrictions, while aimed at protecting the learning environment and reducing medical errors, remain difficult to govern and implement for program directors, especially in the present era of fast-paced medicine and decreasing resources. Duty hour restrictions require more patient handoffs and less continuity of care and tend to lead to complicated issues regarding scheduling. Another example of an ACGME policy controversy is the counting of procedures for subspecialty training in electrophysiology and interventional cardiology only during the fourth year for subspecialty certification. Although the ACGME wants to keep the first 3 years of fellowship focused on educating the general cardiologist, many fellows (and program directors) would prefer that some of the experiences attained in the early fellowship years such as subspecialty procedures in cardiology and electrophysiology be counted toward their subspecialization certification. A final example of controversy is the overall abundance of rules that the ACGME mandates, which is a particular issue for program directors. Many program directors feel that the ACGME processes are appropriate, but some would argue that there needs to be a more centralized approach with better coordination, communication, and implementation of the ACGME initiatives. Program directors are inundated with paperwork and regulations from within their own institutions and elsewhere, and added work and pressure from the ACGME increase the workload and consume resources.

All in all, the ACGME should be commended for being proactive and steadfast in an effort to provide structure for this dynamic, high-stakes training process. The ACGME does not intend to duplicate the role that the American Board of Internal Medicine and cardiovascular fellowship training programs have the daunting task of producing the next generation of leaders in the field. The training of top-notch physicians requires academic environments and structured guidelines for all trainees. Although training programs and hospital settings may differ across the country, depending on location, patient population, research focus, or other variables, certain standards and competencies must be met to ensure proper education.

Although most people do not like rules and regulations, graduate medical training, to be effective, requires some element of standardization and monitoring. There must be uniformity in the training process, no matter where, when, or what type of training program. The ACGME is a staunch advocate for the learner and works with programs in many ways to improve the learning and training experience, ultimately to ensure top-quality patient care. Training programs are responsible for program content and execution of fellowship education, with ACGME oversight for competency-based infrastructure and guidelines to standardize curriculum and evaluation. In a sense, the ACGME helps level the playing field across all training programs by setting standards. Without the ACGME, there would be no significant uniformity in training, leaving professional societies and individual institutions to govern programs, likely resulting in a highly heterogeneous training portfolio across fellowship programs and an education free-for-all.

ACGME: Friend, Not Foe

High-quality education and training are crucial to the future of medicine, and cardiovascular fellowship training programs have the daunting task of producing the next generation of leaders in the field. The training of top-notch physicians requires academic environments and structured guidelines for all trainees. Although training programs and hospital settings may differ across the country, depending on location, patient population, research focus, or other variables, certain standards and competencies must be met to ensure proper education.

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Medicine plays a role in regulating cardiovascular physicians through board certification and recertification. Rather, the ACGME focuses on maintaining a productive learning environment for the trainee. Collaboration between individual fellowship training programs and the ACGME permits programs to maintain their own identities while providing a uniform framework in which to work. In essence, the ACGME has enabled our profession to reflect on practices and to carve paths for improvement. The ACGME, together with cardiology training programs and other stakeholders, should continue to enrich educational opportunities for fellows and to develop guidelines necessary to prepare physicians to care for patients with cardiovascular diseases. Certainly, some ACGME practices and policies are not without debate; however, training programs need a strong, independent organization to oversee the complexities that are inherent to postgraduate training. Simply put, training programs need the ACGME.

Medical education is rapidly moving toward a learner-centric model, with new educational tools and ideas and integration between training programs, governing bodies, societies, and organizations. Continued collaboration between the ACGME and cardiology fellowship training programs, the American College of Cardiology, the American Heart Association, the American Board of Internal Medicine, the Accreditation Council for Continuing Medical Education, and others, including subspecialty societies, is critical to the mission of training highly competent cardiovascular specialists. Ultimately, we all benefit from improved training environments, physicians and patients alike.

**Disclosures**

Dr Kuvin is the chair of the American College of Cardiology Learning Portfolio Workgroup (no financial interest).

**References**


**Response to Kuvin**

*Thomas M. Bashore, MD; Andrew Wang, MD*

Dr Kuvin concisely summarizes the intent, requirements, and processes of the Accreditation Council for Graduate Medical Education (ACGME). The ACGME asserts that its requirements and processes lead to greater physician cardiologist competency, which in turn improves patient outcomes. However, the most enforced and measurable ACGME requirement, that of duty hour limits, has not conclusively been shown to improve patient outcomes. The only information presented to answer the key question, “Does competency-based training result in competent cardiovascular trainees?” is that 90% of program directors have initiated the program. In truth, they have had little choice. No data are presented that the mounds of paperwork needed to be in ACGME compliance have actually resulted in an improvement in the competencies of cardiovascular trainees, and for good reason: There are no such data. Indeed, as shown in Figure 1 of Dr Kuvin’s article, the influences on physician professional experience are complex and extend beyond the years of ACGME-supervised training. Competency assessment is only one of many factors. Also not addressed is the inflexibility of the current ACGME system. One size simply does not fit all. Training a competent cardiologist clearly differs from training in other subspecialties. Rather than mandating extensive and currently unproven documentation efforts, energy should be spent on testing novel approaches and piloting specific aspects of training to decipher which changes actually improve the educational experience. If this were done, the ACGME would then have the data to support the changes it seeks, and a true partnership with the cardiology training programs would be established.
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