What Happens After Medical School? Current Controversies About Licensure, Maintenance of Certification, and Continuing Professional Development

During my 35 years of practicing medicine I have watched practice patterns change in virtually every specialty. Choices for antibiotic administration for infections have changed as organisms developed resistance, laparoscopic techniques have replaced open-surgery techniques, catheter-based procedures have replaced surgical revascularization, new antitoxins have been discovered for overdoses of new medications, new combinations of anticancer medications have cured previously fatal malignancies, and nerve blocks have replaced general anesthesia for certain orthopedic procedures. The list could go on and on. It is probably more difficult to identify aspects of medical practice that have not changed over the past 35 years than those that have.

All these examples show why medical education must be considered a lifelong commitment rather than a set of hurdles to be cleared until board certification and licensure are achieved. In addition, the way we use new information, new technology, and new medical discoveries—in teams and with new tools for data analysis—mandates the integration of learning with practical experience. The current accelerating creation of new information, technology, and discoveries makes licensing, physician certification, and continued learning even more important than they were in the past.

If we were to base our licensing, physician certification, and continued learning by physicians exclusively on the current understanding of competence, development of expertise, and principles of adult education, in a perfect world there would be general agreement about how to construct a system that would ensure a highly competent physician workforce. Licensure would be standardized and based on evidence of a physician’s competence to practice independently. Board certification would depend on evidence of completion of accredited educational programs and demonstration of further competence in a specific specialty area, and there would be a linkage between licensure and certification. Maintenance of both licensure and certification would require evidence of continued competence based on performance at reasonable intervals to account for changes in medical standards, new information, care delivery changes, and the individual physician’s alterations in health, behavior, and capability. Continuing medical education (CME), which now is sometimes called continuing professional development (CPD), would emphasize development of new skills and knowledge relevant to the individual physician’s practice, and educational methods would follow principles of adult education that emphasize autonomous, self-motivated, goal-directed learning.

However, the individual physician’s attainments and growth in expertise are not the only priorities for the licensure, certification, and CPD systems. Other forces, such as the public’s need for accessible, affordable, high-quality health care; the business interests of physicians and other health care providers; and the interests of the certification and CPD communities also influence policy decisions in these areas. Current problems in licensure, certification, and CPD can be traced to conflicts in the interests of these groups. For example, if a state finds that too many members of its population are unable to access medical care from fully trained and certified physicians under the current licensing rules, there may be efforts to loosen standards to encourage more physicians to locate in the state, particularly in underserved areas, even though such a change might enable physicians with lower competence to practice. Because licensure, certification, and CPD are each parts of the continuum of medical education, academic health centers (AHCs) have a stake in the outcomes of current controversies affecting these areas, since the medical students and residents they train, as well as their faculties, will be subject to regulations in these areas.

In the rest of this editorial I attempt to provide some clarity about current conflicts associated with licensure, maintenance of certification (MOC), and continuing physician education and development. I hope this can contribute toward efforts to develop a unified vision for how AHCs and professional organizations might approach solutions.

Physician licensing, which is required for medical practice, occurs at the state level and is carried out by appointed board members. The process includes verification of the candidate’s educational credentials, experience, professional standing, and a review of any ethical, legal, or personal issues. While state licensure has provided the flexibility for states to recognize the unique practice environments that exist in different parts of the country, it has also created duplication of efforts for physicians who practice in multiple states and must obtain multiple licenses, and also has made possible variability in licensure standards that may confuse the public and reduce quality of care. Freeman,1 in this issue of Academic Medicine, describes the current state licensure standards. He notes that state licensure can occur after one or two years of graduate medical education (GME) and questions whether physicians who have only partially completed a GME program have achieved the competence to practice independently. He also describes a recent legislative change in Missouri, where he serves on the medical licensing board, that further lowered the licensing standard to allow physicians to practice who have completed medical school but...
have not participated in GME. Orlowski, who chairs the Washington, DC, medical board, raises similar concerns about inadequate licensure standards in her Commentary in this issue. She notes that most licensing requirements are rooted in training requirements deemed proper and sufficient for the mid-1900s. It is time for a national discussion on minimal criteria for licensure that takes into account current understanding of competency, knowledge, procedural skills (when applicable), professionalism, and professional identity.

These two articles identify inconsistencies between licensing standards and current thinking about readiness for independent practice and make compelling arguments for changes in the current patchwork of state licensure to create a uniform competence-based approach for licensure for independent medical practice. Other areas of controversy are board certification and MOC, each of which may involve a tradeoff between the higher quality of care provided by those who participate and the increased training time and expense of the necessary educational programs.

Board certification has typically involved completing a GME program and passing written and sometimes oral examinations focused on the knowledge, skills, attitudes, and experience required to designate a physician as a diplomat of the board. Board certification has been associated with higher-quality care in numerous specialties and is important for physicians to obtain hospital privileges as well as for advertising their qualifications to the public. In this issue of Academic Medicine, Fleischut et al identify differences in clinical care in anesthesiology related to board certification. They studied the adoption of neuraxial nerve blocks to replace general anesthesia in orthopedic surgery and showed an association between increased adoption of neuraxial nerve blocks and board certification in anesthesiology. The authors suggest that this increase in adoption of neuraxial nerve blocks is evidence of a better quality of care, based on studies that have shown reduced complications and hospitalization time for patients who receive nerve blocks compared with those who received general anesthesia. Fleischut and colleagues’ findings contribute to the growing evidence of better quality of care from board-certified versus non-board-certified physicians.

The evidence for an association of MOC with better quality of care is less certain. Several years ago, Meredith et al showed positive learning effects from participation in quality improvement programs, which are now components of current MOC programs. They demonstrated increased knowledge in members of groups that participated in a quality improvement project about depression treatment in primary care compared with those who received informational materials only. This finding provides some support for the inclusion of quality improvement projects in the MOC program.

Nora et al, in this issue, provide the perspective of the American Board of Medical Specialties (ABMS), which recently incorporated the Accreditation Council for Graduate Medical Education/ABMS core competencies into their four-part 2015 framework of MOC. Included in the framework are professional standing and professionalism; lifelong learning and self-assessment; assessment of knowledge, skills, and judgment; and improvement in medical practice. Nora et al note the potential opportunities for AHCs to incorporate quality improvement activities into their CME programs and also discuss potential homes for CME activities at AHCs that might facilitate collaboration with quality improvement experts. They also request the engagement of the medical education research community to improve the current MOC process by providing evidence for what works best. This is particularly important, since a recent study by Hayes et al showed no differences in a variety of quality measures between ambulatory internists who had time-limited certifications requiring ongoing participation in MOC and those with time-unlimited certifications that did not require MOC activities. Thus, while board certification may be associated with better quality of care, it is not clear what additional improvements MOC programs contribute to quality of care.

At the same time, the cost of MOC is considerable. Sandhu et al have estimated that MOC will cost $5.7 billion over 10 years for internists. This is a substantial cost that will require justification and resources. In some cases, this cost is being openly questioned; for example, a recent Newsweek article suggested that the American Board of Internal Medicine (ABIM) recertification program is enriching the leadership of the ABIM at the expense of individual physicians. The article described the formation of a new board for recertification, called the National Board of Physicians and Surgeons, that would provide recertification to qualified physicians at a cost lower than the ABIM’s. While it is clear that physicians need to continue their training after their initial certification, and that there needs to be a mechanism to assure the public that the skills and knowledge that were present during the initial certification have not become dated, the specific programs that would best achieve the goals of MOC are not clear. The current conflicts about MOC could create confusion in the public and erode trust in physician self-governance. Clearly, it is time for academic and community physicians from all specialties to work together with the appropriate organizations to find a solution.

Finally, there continue to be concerns about the system of CME for physicians. The Institute of Medicine (IOM) convened a group of experts to review the effectiveness of CME and published a report in 2010. The report noted that “there are major flaws in the way continuing education … is conducted, financed, regulated, and evaluated.” The report further advocated improved methods of education, interprofessional learning, and a broader vision for CME that would involve physicians in identifying problems and focusing their learning on their needs. They named this new approach to CME continuing professional development. Since that report was released, the need to prepare physicians for changes in the health care delivery system has grown. New content areas in patient safety and quality improvement have become core educational areas for GME and need to be disseminated to practicing physicians who were not taught these concepts during their residency education. Kitto et al recently described the potential interconnectedness of quality improvement activities with CME and the
opportunities for increased collaboration between them. However, he also noted the current separation of the two areas into silos, with resistance to change and uncertainty as to how collaboration might occur.

While the IOM report recognized trends toward interprofessional practice and their implications for CME, those trends have accelerated in the last six years with payment and delivery system reform. The practice of medicine has moved from an emphasis on individual physicians and patients to teams of advanced practice nurses, physician assistants, social workers, pharmacists, physicians, and community health workers. This change could lead to questions about the meaning of individual competence measurement when care is delivered in teams. If a physician's assistant or advanced practice nurse works with a physician and manages a subset of chronically ill patients with diabetes, how should this team practice be incorporated into the assessment of the physician's competence? If goals of better health, better health care, and lower cost can be achieved through teamwork, how much does it matter what each team member does? The implications for team-based care go beyond questions of individual competence to assumptions about what it means to practice independently.

Although all of these challenges may seem insurmountable, there may actually be opportunities to bring together our developing interprofessional teams around quality improvement in ways that improve education and contribute to MOC. In our current issue, Rosenbluth et al, describe a program in the Department of Pediatrics at the University of California, San Francisco that unites the activities of residents in quality improvement with those of faculty and provides the faculty with credits toward MOC based on their engagement in the projects. The American Board of Pediatrics was extremely supportive of this project because they recognized how the activities of the faculty can meet the goals of MOC. This is an example of how a common set of competencies can help create alignment in the medical education continuum and, with proper communications, incorporate the MOC system. AHCs are well positioned to identify opportunities for alignment in medical education and can make the connections with certifying boards to provide necessary approvals for MOC credits. AHCs also have the expertise to provide evidence for how medical education improves quality of care in all phases of education.

However, such efforts will require a refocusing of educational priorities such that CPD becomes an equal partner with undergraduate medical education and GME at AHCs. The time seems right for such a change and would likely elicit public support because of the potential for improving quality of care. The public would embrace a medical community that shows that it has the public’s interests at heart and is supporting physician self-governance that shows a commitment to health and quality through effective licensure, certification, and CPD programs.

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Editor’s Note: The opinions expressed in this editorial do not necessarily reflect the opinions of the AAMC or its members.

References

2. Orlowski JM. Yes, it is time to rethink postgraduate training requirements for licensure! Acad Med. 2016;91:23–25.