Innovations in Continuing Education

Maintenance of Certification in the United States: A Progress Report
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Abstract
The American Board of Medical Specialties (ABMS) is working closely with its 24 member boards to implement the four components of a Maintenance of Certification (MOC) program. Those components include evidence of professional standing, lifelong learning and self-assessment, cognitive expertise, and evaluation of performance in practice. The new MOC program of the ABMS represents a dramatic shift from how graduate medical education, initial certification in the medical specialties, and recertification in the medical specialties are being conducted. This article updates how specialty boards are implementing the four components.

Key Words: American Board of Medical Specialties, continuing medical education (CME), continuing professional development, general competencies, graduate medical education, Maintenance of Certification

Introduction
There are alarming trends related to the quality of health care and the training of health care professionals in the United States. The American Board of Medical Specialties' (ABMS) movement to Maintenance of Certification (MOC), the Accreditation Council for Graduate Medical Education's (ACGME) Outcome Project and General Competencies, and the Institute of Medicine's (IOM) Core Competencies for health care professionals are meant to address many of the deficiencies.

Two major reports from the IOM4,5 challenge the medical establishment to "bridge" the quality chasm affecting health care delivery and to subscribe to a set of five competencies that define quality care.6 These competencies are (1) provide patient-centered care, (2) work in interdisciplinary teams, (3) use evidence-based practice, (4) apply quality improvement, and (5) use informatics.

Competence and Performance
The terms "competence" and "performance" are often used interchangeably when, in fact, there is a clear distinction between the two.6 Competence is defined as what physicians can do in controlled representation of professional practice (in the test setting or learning environment), which is the domain of primary certification. Performance, on the other hand, measures what physicians do in their professional practice, which is the domain of MOC.

Miller's pyramid7,8 (Figure 1) best illustrates the differences among knowledge, competency, performance, and independent action. He asserts that outcomes need to be measured at these four levels. Knowledge or "knowing" is the fund of core information acquired; competency is the "know-how" or application of knowledge; performance is the "show-how," in which competence in practice is observed; and independent action is what the practitioner "does" independently or what happens when no one is looking. The world of
primary certification revolves around Miller’s “knowledge” and “competence” components, whereas “performance” and “independent action” focus on MOC. The difference between “competence” and “performance” is significant because there is a discernible gap between the two.

**General Competencies: ACGME and ABMS**

The creation of the General Competencies was the culmination of ACGME’s Outcome Project. It resulted in a shift to an accreditation model that is based on educational outcomes and demonstrated skills, that is, on actual rather than simply potential competence. ACGME’s six General Competencies endorsed in 1999 and adopted by the ABMS are as follows: (1) patient care, (2) medical knowledge, (3) practice-based learning and improvement, (4) interpersonal and communication skills, (5) professionalism, and (6) systems-based practice. These competencies are expected of all physicians spanning their professional career. Skills supporting competency in practice-based learning and improvement incorporate IOM’s five designated areas. The ACGME, through its 27 Residency Review Committees (RRCs) covering 26 core specialties and 115 subspecialties, sets training standards and program review protocols for all U.S. allopathic residency programs. All RRCs now expect evidence of learning and evaluation of all six competencies.

The ABMS and its 24 independent member certification boards have been responsible for ensuring the following goal: *protect the public and patients by attesting to the quality, safety, and effectiveness of U.S. medical practitioners.* Certification of a given physician by a member board indicates that the physician has completed a prescribed curriculum in an approved program in that specialty and has successfully completed an evaluation for the related knowledge, skills, and experiences. Since its inception, the ABMS and its specialty boards have established standards and criteria for physician certification. The ABMS is presenting the MOC program as a logical extension of that process.
The ABMS program in MOC was adopted in 1998, reflecting the new skills and competencies required of physicians in the twenty-first century. The four components required in the ABMS MOC program include evidence of (1) professional standing, (2) self-assessment and lifelong learning, (3) cognitive expertise, and (4) evaluation of performance in practice. These four components are integrally bonded to the ACGME and ABMS six General Competencies. For practical purposes, the General Competencies can be viewed as content categories, whereas the MOC elements can be viewed as processes.

The time in which a newly certified physician has to demonstrate all four components of the MOC program is known as the “MOC cycle.” MOC cycles vary by specialty and run from 6 to 10 years. The MOC program represents a conceptual shift from the earlier recertification model. The recertification model featured recertification as an episodic event, often taking some form of cognitive examination once during the recertification cycle. The MOC model stresses continuous, rather than episodic, certification. The ABMS is encouraging each of its member boards to move incrementally to a MOC model that involves not only evidence of medical licensure and medical knowledge but also evidence of self-assessment for lifelong learning and evidence of evaluation of performance in practice. Some boards began as early as 2000 and will take several years to fully implement the process.

What Do the Boards Require?

Appearing below is a synopsis of what boards require with respect to the four components of MOC.

Professional Standing

Evidence of professional standing requires that all medical licenses held by a given physician be unrestricted. This licensure is checked at least once by the board within the MOC cycle (with random audits by some boards). In addition, some boards require attestations and reference or review letters from peers, colleagues, and/or institutions and, in some cases, evidence of institutional appointments, privileges, credentials, and membership. The review of evidence of professional standing is conducted exclusively by board staff.

Lifelong Learning and Self-Assessment

For this component of the MOC program, some boards have partnered with related educational societies to provide resources and educational programs. Most boards require continuing medical education (CME) hours, although not all do. Required CME hours generally range from 10 to 50 per year within the MOC cycle. Methods available for self-assessment among boards typically consist of examinations, tests, and educational modules (many Web based), the content of which relates to the six competencies and the related specialty curriculum. Some boards require passing the self-assessment component in prescribed years within the MOC cycle before being admitted to the cognitive examination.

Cognitive Expertise

Demonstrating evidence of cognitive expertise requires passing a proctored, secure, closed-book examination within the prescribed years of the MOC cycle, often toward the last half or last third of the cycle. The examination is conducted under the direction of the boards. Most boards make this examination available in written format, and some boards offer the cognitive examination in a computer-based format in national professional test centers. Some cognitive examinations are modular, with a core general component and practice-based specialty modules.

Performance in Practice

This fourth component of MOC is the most challenging requirement for all major stakeholders, including the boards, physicians, and specialty
organizations. Practice assessment addresses the top half of Miller's pyramid, namely, performance and independent action. What renders this MOC component more complex and multivariate is the intent of practice assessment to validly, reliably, and feasibly capture the daily practice behavior of the physician since initial certification. This task is daunting, and the 24 ABMS boards are responding to the challenge in a variety of creative ways.

What the Boards Are Doing

By the end of 2004, all boards are required to submit a plan for how they will evaluate performance in practice. Member boards are at various stages of determination and policy development. This provides an excellent opportunity for collaborating medical specialty organizations and other CME providers to demonstrate an implementation plan for their role in the MOC enterprise.

Many certification boards see their becoming involved with the education of physicians as compromising their position as certifiers of physician competence. Therefore, these boards look to organizations whose purpose is physician education to assist them with their MOC programs.

Boards are expecting practice performance assessment to embody a quality improvement model rather than be a regulatory process. Physicians will be assessed for how closely their particular practice compares with accepted standards of care in that specialty. Several strategies and tools may be used by the boards to evaluate practice performance: (1) an automated telephone system for collecting and assessing confidential patient satisfaction measures and peer assessments of physicians; (2) use of evidence-based guidelines or benchmarks, expert consensus, or normative peer comparisons; (3) review of representative operative cases or logs with procedural specialties; (4) office record reviews or audits; (5) practice performance improvement modules; (6) specific board feedback, such as the American Board of Pediatric's eQUIPP program and surgical board models; (7) case-based oral examinations; and (8) linkage to practice data or outcomes through practice guideline measures and national benchmarks promulgated by specialty societies are examples. Typically, boards will be using combinations of these tools within the prescribed time-frame of the MOC cycle.

As of March 2004, most boards had received ABMS approval through committee review of their plans for implementing the first three components of MOC, namely, evidence of professional standing, evidence of self-assessment and lifelong learning, and evidence of cognitive expertise. The challenge now is to demonstrate that the tools and techniques they require to be used in assessing the performance in the practice component of MOC are credible, valid, reliable, practical, and feasible, while having an impact on physician outcomes.

References

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