



The measurement of competence

Current plans and future initiatives
of the American Board of Surgery

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The measure of competence and the link between competence and certification have become major agenda items for every member board of the American Board of Medical Specialties (ABMS). This circumstance stands in stark contrast to the situation 10 years ago when boards confined themselves to their traditional but limited goals: to examine, to certify, and to improve the opportunities for graduate medical education in their respective disciplines. The reasons for this narrow view were quite valid (in fact, many of them still are): major definitional problems, major measurement problems, and major legal problems.

That stance is no longer tenable and the reason is simple: the pressure is on the boards to link possession of a certificate to competent performance in practice. The boards have always assumed intuitively that such a relationship exists but never put into place a concrete process for demonstrating it for the reasons enumerated. Now they must prove certification and competence are interrelated.

Three events stimulated this change of approach. First was the appearance of report cards from managed care organizations, which served to alert the public that comparative information was available about physicians and their practices.

The second was the American Medical Accreditation Program, a short-lived but highly publicized undertaking by the American Medical Association (AMA), which sought to accredit the adequacy of an entire physician's practice, including competent care. The AMA had made the right diagnosis—that is, that the public was anxious for assurances that the physicians caring for them are competent and, at the same time, physicians were anxious to demonstrate that fact. Unfortunately, the AMA had the wrong prescription; it involved itself in an irreconcilable conflict of interest by attempting to accredit its own members.

The final pressure was the publication of the Institute of Medicine report, *To Err Is Human*, which has caused incredible angst in the minds of the public and within the profession while arousing enormous interest among regulatory agencies.

Obviously, boards cannot be immune to this

phenomenon and must become deeply engaged. Not to do so would render their end product, certification, incidental at best and irrelevant at worst. Recognizing that risk, the ABMS three years ago created a task force charged with identifying those broad elements or domains by which competent physician behavior could be identified and measured. That task force outlined six primary components (see Figure 1, p. 12): (1) competent patient care; (2) adequate medical knowledge; (3) a lifelong commitment to evidence-based and practice-based learning, the endpoint being practice improvement; (4) interpersonal and communications skills; (5) professionalism; and (6) systems-based practice.

The task force launched one other very important initiative: it developed a related concept called maintenance of certification (see Figure 2, p. 13), roughly defined as evidence of continuous high professional standing, continuous commitment to lifelong learning and involvement in periodic self-assessment, continuous evidence of cognitive expertise, and continuous evidence of evaluation of performance in practice. What successful maintenance of certification signifies, in essence, is that those who hold a certificate possess at any given moment in time the same qualifications and have been subjected in an ongoing way to the same rigorous scrutinies that were possessed and scrutinized on the day the certificate was issued. The goal is to ensure that the certificate is and always will be closely linked to competent performance.

No board, including the American Board of Surgery (ABS), is under the illusion that creating this linkage will be easily or readily accomplished. There exist major issues and major problems that must be resolved and difficult questions that must be answered. These include:

- Are the listed competencies relevant to the disciplines of surgery?
- Are adequate assessment tools currently available? If so, can they discriminate?
- Most importantly, are they legally defensible?
- What will be the cost? Who will bear it?
- How can the board deal with the enormous heterogeneity of practice, especially in general surgery?
- What should be the endpoints?

- Where should the bar be set for decertification? Should there even be a bar?
- How can diplomate buy-in of the initiative be achieved?
- What is the value of the initiative to the practicing surgeon?

The magnitude of the task will become apparent when current and proposed approaches of the ABS to some of the listed competencies are examined. It will also become apparent that boards cannot undertake the task alone. They need the help of specialty societies and most importantly, for the ABS at least, the help of the American College of Surgeons (ACS). Specialty societies and the College have a large stake in this enterprise because they, too, need to forge links with the maintenance of certification effort if they want to remain genuinely relevant to their constituents. The problems and the importance of partnership are well illustrated by analyzing the ABS approach to three competencies in particular: cognitive knowledge, professionalism, and patient care.

Cognitive knowledge

The one task that the ABS and the other surgical boards do indisputably well is create and administer sophisticated multiple-choice examinations. The current recertification examination is no exception; it is psychometrically sound, it is equated to past cohorts, it is peer-reviewed for relevance, and practicing surgeons are closely involved in its construction and oversight from the beginning. Most importantly, it has credibility with the public because it is proctored and secure and will continue to be so.

Despite these assets, the recertification examination in its present construct suffers from three limitations. The first of these is that the 10-year recertification cycle is far too long. A much shorter interval between examinations is needed in order to provide surety to the public that a diplomate is, in fact, current in the basic information requisite for the discipline. It seems likely that the ABMS will decide upon a much shorter interval than is currently practiced by most boards and, once that interval is defined, the ABS will support the change.

The second limitation is well recognized by

Figure 1

General competencies

- Medical knowledge
- Patient care
- Interpersonal and communication skills
- Professionalism
- Practice-based learning and improvement
- Systems-based practice

Adopted by the ABMS Assembly on September 23, 1999.

diplomates who regularly complain that they are at a loss as to how to prepare for the recertification examination because there is no syllabus, no text, and no hint from the board as to either examination content or board expectations. The board recognizes that this debit must be corrected if the examination is to have value for diplomates. At a minimum, a core of knowledge has to be defined more explicitly than it is at present, a core that will represent the essential information everyone who holds the basic surgery certificate must master and continue to master regardless of practice type.

The board will take the lead in this defining exercise, but it cannot accomplish the entire task alone. The board must partner with the broader general surgical community, and the logical partner is the ACS. Once such a curriculum is devised, its essential elements must then be made widely available in a didactically sound way to diplomates and Fellows. There can be no better forum for providing surgeons with this knowledge than the annual Clinical Congress or perhaps the Spring Meeting of the College, using as a vehicle a specific postgraduate course devoted to the effort on a regular basis.

In that same connection, a major thrust of the maintenance of certification effort is to encourage diplomates to engage in the process of life-long learning—continuing medical education

Figure 2

Maintenance of certification: The Program for Assessment of Continuing Competence

Maintenance of certification is the board certification program for assessment of continuing competencies of physicians and encompasses recertification. Maintenance of certification has four basic components:

- Evidence of professional standing.
- Evidence of a commitment to lifelong learning and involvement in a periodic self-assessment process.
- Evidence of cognitive expertise.
- Evidence of evaluation of performance in practice.

Adopted by the ABMS Assembly on March 16, 2000.

relevant to their practices—and to provide them with the means to measure their own progress and to improve through self-assessment testing and feedback. No better instrument to accomplish this exists than some variation of the Surgical Education and Self-Assessment Program (SESAP), which focuses on the already-defined core. The board can mandate and reward that activity—in fact it already does—and the College can provide it if it has the blueprint. To put it simplistically, the College can teach and the board can test.

Similarly, the board and the College can and should partner in the effort to define periodically what is new, what is important, and what is enduring in general surgery. That having been done, the same profitable collaboration can exist: the College can teach and the board can test. Diplomates, Fellows, and the public will all benefit because in this way, a mechanism for ensuring relevant ongoing currency is always in place.

The third limitation to the current ABS recertification schema, perhaps the most impor-

tant of all, relates to the frequent criticism leveled that the examination is not testing diplomates in the area of their current practice focus and principal expertise. Absent that characteristic, the exercise has little relevance for many diplomates who view it as a chore to be accomplished, but one lacking in value because what it tests is often not personally germane. The issue here, of course, is value—the value of cognitive testing to individual diplomates. This is a fundamental issue because for the competence initiative to succeed, diplomates must be willing to buy in to it. If there is little or no value to the process, there is little or no buy-in. Many on the board believe it should address this issue by altering the structure of the recertification examination to recognize the incredibly diverse areas in which diplomates practice. That recognition having been attained, feedback can be provided to diplomates in the form of report cards that will allow them to judge for themselves where they stand with respect to their peers.

What all this speaks to, of course, is the development of a basic core modular recertification examination that all diplomates must take and pass, plus a menu of modules corresponding perhaps to the primary components of surgery as the board has defined them. From that menu, diplomates may choose one or perhaps several in their areas of expertise and interest.

There are questions, however, that the ABS must answer before modular testing becomes a reality. They include:

- How can the psychometric validity of the core be maintained?
- How should the modules be developed and used?
- How should they be scored?
- How should they be weighed?
- Most importantly, how can the board prevent the successful completion of a module from becoming a mini-certificate?
- Finally, there is the very special problem of general surgery, the practice of which is so extraordinarily heterogeneous that it may not be possible to create enough modules to cover every circumstance.

Nevertheless, the board is moving in this direction and with some rapidity. Once again, how-

ever, it will be necessary to partner with the ACS and with specialty societies, particularly with respect to defining the competencies expected within each of the modules and to developing a valid instrument for testing them.

Professionalism

The second competency, professionalism, encompasses, among other qualities, high standards of moral and ethical behavior. The board already gleans much of the information needed to assess this competency through local peer review. However, the most important present source of this information is the AMA Physician Disciplinary Alert Bulletin, which regularly lists all adverse licensure actions for all ABS diplomates. On the thesis that an unbesmirched license to practice is the most basic characteristic of competency, the board pulses these data on a quarterly basis, paying particular attention to potentially egregious sanctions, such as revocation, surrender, suspension, or probation. The details are then investigated with each state board and, if the infractions are serious enough, the board has the option, following review by its credentials committee, of revoking a diplomate's certificate.

In addition, the board adopted, at its January 2000 board meeting, a much-expanded policy regarding certificate revocation. Decertification can now be invoked under the following circumstances: if the diplomate did not possess the necessary qualifications to receive the certificate in the first place, if the diplomate misrepresented his or her status relative to certification, if the diplomate sustained an adverse licensure action, if the diplomate was expelled or disqualified from membership in any professional organization of peers, or if the diplomate had major limitations placed on privileges to practice.

The principal limitation to this approach is that it identifies and sanctions only the outliers within the system, "the baddest of bad apples." The sad truth, however, is that the board has no choice in this matter because it would engender an enormous legal risk if it undertook decertification action based on anything beyond revocation or surrender of a license to practice or conviction of a criminal offense coupled with incar-

ceration. That is not to say that this approach cannot identify marginal practitioners; it can. At a minimum, then, it becomes the board's obligation to act as a probation officer in these cases and to mandate that problematic diplomates keep it informed on a regular basis as to the status of the sanction, recidivism, new problems, and so on. It may be of some value because the simple fact that the diplomate is aware of the board's interest may serve as sufficient impetus to reflect, perhaps even to change, behavior. Conscience, after all, is never so strong as when someone is looking over your shoulder.

Quality of patient care

It goes without saying that in a technical specialty the best approach to measuring the quality of patient care is to examine the end results achieved with specific procedures by individual practitioners—outcomes. The advantages of this approach are obvious: outcomes are definable; they are discoverable; they can serve as a surrogate for a host of other components of competence, including technical ability; and national norms for outcomes can be, and in many instances have been, determined. The difficulties inherent in outcomes assessment also are clear. Even though a plethora of outcomes assessment instruments is available, both commercial and otherwise, most are either very crude or very naive, or they measure the wrong endpoints (at least from the perspective of the competence initiative). Conversely, if they are not crude, if they are not naive, and if they do measure the right endpoints, they are enormously expensive to implement. General surgery in particular poses an especially troublesome difficulty for the board: the development of universally applicable outcomes analyses for a major constituency of the board whose practice profile is incredibly varied.

Despite these difficulties, the board believes it must begin the effort now. As an initial step, the board has developed preliminary guidelines for outcomes assessment:

- There must exist or the board must create a simple method for risk adjustment.
- Individual outcomes must be compared with valid national norms.

- The data must be easily collectible so as not to burden diplomates excessively.
- The endpoints selected must be few in number, easily measured, and clinically relevant.
- At least initially, the board should concentrate on short-term outcomes.
- The confidentiality of the results must be absolutely guaranteed.
- Most importantly, the rationale for the exercise must be clearly stated and strictly followed, namely that the data from individual practitioners will be used to provide feedback to them alone for the sole purpose of stimulating practice improvement and with no other endpoint in mind.

With these caveats, the board has been in contact with the vascular surgical community, the surgical oncology community, and the pediatric surgical community, inviting each to serve as testing groups to develop templates for the entire effort. All have indicated their enthusiastic support. Fortunately, each seems ideally suited to the role because the numbers of practitioners are relatively few in each group and their practices are relatively uniform.

Each has been asked to address many thorny questions, including:

- Which outcomes?
- Which endpoints?
- What methodology?
- How can improvement be measured?
- And, most difficult of all—perhaps unanswerable—how can the effects of the system be separated from the actions of the individuals?

There is a role for the College in this outcomes effort. The College has enormous creative energies that could very well help provide the needed support and infrastructure to assist in establishing a way to assess outcomes, particularly in general surgery. The College will also be a critical collaborator in the future assessment of technical competence.

Summary

In summary, the ABS is committed to the competence initiative. Not to do so would be to risk irrelevance.

In order for the initiative to succeed, it is clear that the board must partner with specialty so-

cieties and most particularly with the American College of Surgeons. That partnership should take the form of collaboration to “teach and test” core information in general surgery and in the surgical specialties and to adjudicate appropriate risk-adjusted outcomes.

The aim of the initiative is practice improvement and practice improvement only. It is the hope of the board that diplomates and Fellows will see value in the exercise and will endorse it because of pride in their profession and pride in themselves. □

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