

Professional standards in the USA: overview and new developments

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ABSTRACT – The USA and the UK are both experiencing dramatic changes in the management and regulation of physician practice. While the USA and the UK share a commitment to evidence-based medicine and maintain traditions in how medicine is practised, the healthcare delivery systems and the process and approaches to professional management in the two countries are quite different. This article describes the process of the initial certification of graduating medical trainees and the approach to maintenance of certification among practising physicians in the USA, with a focus on new developments in board certification and their link to healthcare quality and public accountability.

KEY WORDS: board certification, maintenance of certification, medical knowledge, professional standards, public accountability, quality of care

Introduction

The USA and the UK are both experiencing dramatic changes in the management and regulation of physician practice. The reasons are similar: greater public concern about the quality of healthcare and patient safety; rising costs of care and, with that, growing demands for transparency from those who pay the bill; and advances in health services research and database availability allowing for greater accuracy in measurement of components of quality of care. While the USA and the UK share a commitment to evidence-based medicine and many traditions in how medicine is practiced, the healthcare delivery systems in the two countries are quite different. The process and approaches to professional oversight likewise are different, having grown through the last century in a time of parallel advancement in medical science, but with somewhat different organisations and structures. This article will describe that process in the USA, particularly from the point of view of the specialty certifying boards, and will focus on new developments in board certification and their link to healthcare quality and public accountability.

The legal right to practise medicine in the USA is conferred by each of the 50 states through the state medical board process. Physicians must have com-

pleted recognised (accredited) training, have passed a standardised set of examinations and must adhere to specified professional standards of behavior in order to be licensed. Licences are not transferable from one state to another, and physicians in the US must apply for a new licence when they relocate. The states require varying degrees of review to be relicensed on a one-to-five-year cycle. Most of them require some amount of continuing medical education (CME), which is generally documented by showing attendance at educational events or, more recently, can be obtained through online educational activities. A medical licence is a legal requirement to practise medicine in the USA – specialty board certification is not.

Brief history of board certification in the USA

Board certification began in 1917 with the American Board of Ophthalmology as the first specialty board. The American Board of Internal Medicine (ABIM) was incorporated in 1936 and by 2002, the core group of the 24 member boards of the American Board of Medical Specialties (ABMS) had a firm set of shared guidelines and requirements for board certification (Table 1). The specialty boards were created in the first part of the 20th century as medical science was beginning to advance, and physicians were beginning to gain specialty knowledge. The primary reason for specialty boards was to identify

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Table 1. Member boards of the American Board of Medical Specialties (ABMS).

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| ● Allergy and immunology | ● Pathology |
| ● Anaesthesiology | ● Paediatrics |
| ● Colon and rectal surgery | ● Physical medicine and rehabilitation |
| ● Dermatology | ● Plastic surgery |
| ● Emergency medicine | ● Preventative medicine |
| ● Family medicine | ● Psychiatry and neurology |
| ● Internal medicine | ● Radiology |
| ● Medical genetics | ● Surgery |
| ● Neurological surgery | ● Thoracic surgery |
| ● Nuclear medicine | ● Urology |
| ● Obstetrics and gynecology | |
| ● Otolaryngology | |

the boundaries and the content areas that defined specific specialties. It was a time, shortly after the Flexner report, when American medicine was beginning to try to distinguish itself from the proprietary physicians trained by apprenticeship, many of whom had little science base and were often considered ‘snake oil salesmen’.¹

Importantly, in contrast with the Royal Colleges in the UK, the specialty boards were established to be independent of the membership societies. The parent bodies that created the ABIM in 1936, the American Medical Association (AMA) and the American College of Physicians (ACP), felt it was important for the certifying boards to be independent of membership societies in order to be able to set high standards that would be credible with the public. Thus, the true constituency of the certification boards is the public. This factor has indeed led board certification to have the potential for leadership in advancing quality of physician practice without being constrained by membership self-interest political forces.

For the first several decades of the US board certification process, it was a truly voluntary system and was considered a mark of excellence and extra professional achievement. Indeed, many leaders in the field were not board certified and most patients would not have considered inquiring about a physician’s certification status. During the latter decades in the 20th century, a number of important changes occurred. One was the growing consumer movement in healthcare and the more widespread recognition that a ‘board certified physician’ was a good thing, even though most members of the public did not really know what that meant. With the growth of hospital-based and more highly technical care, hospitals were looking for credentials for hospital privileges. In the surgical specialties, in particular, board certification began to be considered a highly desired and sometimes required credential. The second major change was the rapid growth of managed care in the health insurance industry in the 1980s. Looking for ways to distinguish themselves, the managed care plans began to prefer board certified physicians for their networks. These two changes caused a large proportion of previously uncertified physicians to seek certification in the late 1980s and early 1990s. The third major change was the beginning of limited duration for board certification and the consequent incentive for recertification. For example, the American Board of Family Medicine (formerly Family Practice), required recertification every seven years from its outset in 1972. The American Board of Surgery changed its standards to require recertification in 1976. Most boards, however, still issued lifetime certificates until, in 2002, all of the ABMS boards agreed on comparable standards for board certification, including recertification requirements and a new component that requires evaluation of performance in practice.

Maintenance of certification

The agreement of the 24 specialty boards to a process called ‘maintenance of certification’ (MOC) marked a new era in the importance of specialty boards for public accountability and the potential for the boards to restore public trust in physicians as

leaders and a strong ethical responsibility to maintaining their competence and standards of patient care. About 87% of American physicians are certified. Family physicians, general internists and general paediatricians provide most of the out-patient primary care but are considered specialists under the ABMS.

MOC requires all of the boards to limit the duration of their certificates. Currently, certificates are required to be renewed within 6- to 10-year cycles, depending on the different specialties. All specialties, however, require four components to the MOC process (Table 2):

- 1 An active and unrestricted licence in the state where the physician is practising.
- 2 Self-evaluation of knowledge, to increase and strengthen the standards for continuing medical education including the ability to demonstrate significant learning.
- 3 A secure, closed-book examination of knowledge.
- 4 Assessment of performance in practice.

For most boards, the fourth component, the practice assessment, is a new and challenging aspect of the MOC process. The investments in research and development, of new products and approaches to new relationships with the medical societies and other healthcare organisations, have energised certified physicians in an important way.

Although most of the boards have established a 10-year duration of certification, a few require recertification every six or seven years. All, however, have acknowledged that the concept of MOC suggests the goal that physicians should be continuously engaged in self-evaluation and improvement of knowledge and practice performance over the course of a career. The expectations of the boards are that new approaches and products will be developed that create incentives for physicians who complete self-evaluation of knowledge and practice performance on a frequent basis, perhaps as frequently as every year but, at this point, that has not been required by most.

For the self-evaluation of knowledge component, some boards have developed their own education materials with exam-like questions that must be answered by the physician, usually with an online option. Some boards rely on their specialty society’s materials for this requirement and others have innovative approaches, such as a requirement to review a certain number of important articles from the preceding period and to answer questions based on those particular articles. The majority of these self-evaluation of knowledge products encourage more active learning instead of the passive didactic, lecture-type CME shown to have little impact on physician

Table 2. Four components of maintenance of certification (MOC).

Part 1	Professional standing
Part 2	Lifelong learning and periodic self-assessment
Part 3	Examination of cognitive expertise
Part 4	Evidence of evaluation and improvement in practice

change.² For example, the ABIM self-evaluation of knowledge modules contain questions that encourage the use of educational resources, provide links to key educational information and may use video and audio recordings. This more active type of CME has been shown to be more effective in promoting improvement.³ In some cases this requirement led to tension between societies and boards as the 'turf' of continuing medical education was disputed but most by now have established productive cooperation that has promised to lead to significant improvement in the rigour of educational products and the evaluation of physicians learning from them.

The knowledge exam is the component of MOC that is probably the most unfamiliar to UK physicians who are generally not required to repeat a knowledge exam after their initial MRCP or MRCS specialty designation. It is not hard to see why a periodic secure examination is a core component of public expectation for board certification.⁴ Science is advancing ever more rapidly, and the knowledge base that any physician needs is dramatically increasing. The Institute of Medicine, Washington DC, pointed out that some 10,000 clinical trials are published every year and that no physician could be expected to keep up with that volume of knowledge. For this reason, many physicians cite the importance of decision support and information resources available to physicians rather than physician memory; and indeed, boards are recognising the importance of this. The self-evaluation of knowledge modules were specifically designed for this purpose. However, state-of-the-art question development on knowledge exams is not so much to test rote memory but more to evaluate the synthesis of information and clinical judgment. The exams are rigorously developed and tested using strict psychometric standards and at the ABIM, they are reviewed by a national network of practising physicians and graded for clinical relevance. Only those questions with significant relevance to practice are used in the MOC examinations.

In 2005, Choudhry and colleagues published a meta-analysis of the literature of physician capability over the course of a career and found a dramatic and significant decline in physician

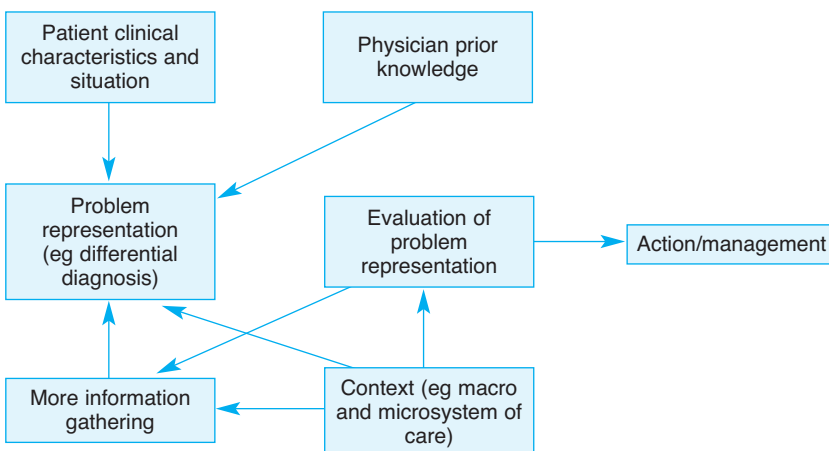


Fig 1. Role of physician knowledge and patient care. Reproduced with kind permission of Springer Science and Business Media.⁷

Key Points

Specialty certification boards are independent, physician-led organisations that set standards and assess the clinical competence of physicians throughout their career

The public is the main constituency of the certification boards in the USA

The evaluation of medical knowledge is a vital and valued component of certification

Maintenance of certification is a new pathway for physicians to assess and improve their performance in practice

knowledge, their compliance with national guidelines for diagnosis and treatment, and in some cases, with actual patient outcomes.⁵ Data like this further support the need for ongoing stimulus for physician learning and self-evaluation. As performance assessment becomes more rigorous and more widespread, many people argue that knowledge exams are not necessary if performance is being evaluated in practice. Medical knowledge, however, consists of so many complex areas that the ability to evaluate a physician solely based on a limited number of patients cannot possibly truly evaluate the depth of specialty knowledge. In internal medicine, for example, one can fairly reliably gather enough patients with diabetes, asthma or congestive heart failure to test one's performance in that area. But no internist would have a large enough volume of patients with meningitis or tuberculosis to be able to evaluate performance in those patients and yet, one would want to expect a board certified internist to be able to consider the possibility of meningitis in a patient with a headache and a fever or of tuberculosis in a patient with a cough and weight loss. Twenty years of research in cognitive psychology has confirmed the importance of possessing a certain 'core' of medical knowledge.⁶ Firstly, without this core knowledge one cannot recognise what one does not know

and therefore needs to 'look up' and secondly, as shown in Fig 1, this core knowledge is a critical component of the clinical reasoning process.⁷ Thus, it is diagnostic acumen that is probably best evaluated by the knowledge exam whereas the treatment and management of common conditions is probably best evaluated by practice performance assessment.

Evaluation of performance in practice

The evaluation of practice performance component for ABIM consists of either ABIM-developed tools – the practice improvement modules (PIMs) – or other data gathered around the physician's practice from other sources. The PIM is an internet-based tool, using nationally accepted guidelines for

specific conditions or patient groups, allowing a physician to review chart data, either manually or electronically, survey their patients, and examine the office systems. Physicians send this data to ABIM over a secure link to be analysed and then returned to the physician as a summary performance report. To get credit for that component, a physician must spell out goals for improvement and at a later time (perhaps six months to a year), re-evaluate a comparable group of patients and resubmit the data.

Early research work by the ABIM found the vast majority of physicians rated the condition-specific PIMs to be a valuable experience. In a pilot study of the diabetes PIM, the participating physicians discovered deficiencies in care processes among their diabetic patients that surprised them. As a result, all but one physician made a change in their practice habits.⁸ Physicians can also use modules that specifically ask patients and/or peers to evaluate the physician. The ABIM developed a patient/peer module in the late 1990s (similar to the 360° reviews used by the General Medical Council), and analysis of the early users found the information from the module could discriminate among levels of physician performance. One group of physicians in Rochester, New York, chose to use a version of this module in their pay-for-performance program.⁹ Finally, the practice improvement module has found a welcome audience beyond board certification in residency training programmes. Currently 17 residency programs are using various PIMs across the USA.¹⁰ The ABIM is currently completing a study of the PIM in another 15 residency programmes, involving over 700 residents across the USA.

In addition, many physicians, although not all, do receive practice-related data either from their health system, such as those belonging to the Veterans Administration, or from a large multi-specialty integrated group practice, such as the Kaiser Permanente or Mayo Clinic groups. Over 50% of practices in the USA, however, consist of five or fewer physicians, may receive very little useful clinical data and have no way of identifying their patient denominator base to do a reliable evaluation of practice performance. For those physicians, the PIM is an extremely useful tool. Some physicians do receive valuable clinical data from their health plans (these are insurance companies that insure a component of the patients being seen by the physician). This is a place where American medicine is much more complex and disorganised than in the UK – as there are approximately 1,300 different insurance companies,¹¹ any given physician may not have a majority of their patients insured by a single company. The government insures elderly patients through Medicare and poor people by the state governments through Medicaid, but others are generally insured through their employers by one of these insurance company health plan arrangements. The health plans are generally insurance arrangements, rather than providers of care but through the payment mechanism, plans can collect some data based on individual payment claims submitted by the physician for each patient visit and treatment. Increasingly, the desire is that more direct clinical data (such as laboratory values and clinical exams) are collected by these physicians for the purposes of public account-

ability and, increasingly, pay for performance. But in the current world, this is not possible for most physicians to do, except through something like the ABIM's PIM. ABIM will, however, give credit to physicians who have robust enough data from some other source so that they are not then required to engage in redundant measurement in order to maintain their certification. This reduction of redundancy and reducing the burden of measurement is a major commitment of the ABIM Board of Directors, and the flexibility around meeting the performance assessment component of MOC is evidence of that effort. Some health plans, however, are seeing that the PIMs may be useful to them in pay-for-performance models and are exploring ideas of using these clinical measures for pay for performance. While ABIM would also give credit for MOC, it is important to understand that the certifying boards are not in any way involved in determining the amount or issuing payment for services.

Certification boards and physicians

These are a lot of changes and new requirements at a time when American physicians are feeling increasingly beleaguered by the growing bureaucratic requirements of the fragmented healthcare system and, in the case of primary care and generalist physicians, reduced payment for their services. How are they responding to these new rules for board certification? When the new requirements were initially announced, there was an understandable opposition from physicians who see this as added, and perhaps unnecessary, requirements. Over time, however, it appears that acceptance is growing as many of the boards – and the ABIM, in particular – have made a concerted effort to reach out and communicate to physicians to conduct research to improve the products and to demonstrate the relevance to practice.

For one thing, board certification is no longer as discretionary as it once was. As consumers and payers become increasingly interested in evidence of physician competence and quality of care, board certification, especially in its new manifestations, has growing relevance to that world. Thus, many physicians feel that board certification is not optional. For many in the surgical specialties, hospital privileges depend on certification standards; and increasingly, hospitals are looking to board certification even in non-surgical areas.¹² Widely accepted quality measures for health plans in the USA include percentage of doctors with board certification as one of their quality measures.¹³ Thus, board certification exams come with higher stakes and physicians are more motivated to maintain their certification. Since internal medicine certificates became time-limited in 1990, the first wave expired in 2000. Thus, in the last five years of experience, data show that 88% of specialists and 80% of general internists are enrolling for recertification. The findings of a recent survey conducted jointly by the ACP and ABIM examined physician attitudes about certification.¹⁴ It showed a number of interesting things; the most common reasons physicians gave for enrolling in certification were professional image and quality of care rather than employment requirements or payment, suggesting that professional motivation is still the primary driver. Secondly, it also showed that physicians were

much more likely to be critical of the process – complaining that it was too time consuming and not relevant to their practice – before they had gone through it. More physicians agreed that the process was relevant to their practice after they had completed MOC. The major complaint was still, however, the amount of time that it takes, an issue that leads the boards to look increasingly toward ways to streamline data collection and strengthen the ability to recognise activities that physicians are doing with their societies or their group practices.

Conclusion

In summary, a combination of knowledge and practice is required to maintain board certification in the USA. The boards are independent entities of peer review, without legal or regulatory status but with significant impact in the marketplace. Given the legitimate public interest in rigorous physician qualifications, it will be ideal if the profession itself can provide trusted and meaningful oversight.

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