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Continuing medical education Recertification and the maintenance of competence

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Completion of postgraduate specialist training is a landmark event for most doctors. The award of a certificate is acknowledgment that a doctor has undergone a recognised training programme and been assessed as competent to practise as a specialist in his or her field. Specialists begin practice with a common knowledge base and similar clinical skills but go on to develop different areas of expertise in response to patients' needs. In time, the knowledge and skills of doctors within a specialty will vary appreciably.

Recertification in the United States

Recognition of the disparity in doctors' skills and the need to maintain common core standards have been a key factor behind the "recertification" movement in the United States.¹ The movement became established in 1969 when the American Board of Family Practice began issuing time limited certificates. Although recertification is nominally a voluntary process, doctors must get recertified every seven years if they want to retain the status of being "board certified."² The United States is currently the only country in which most trained specialists are expected to obtain recertification certificates at set intervals throughout

Summary points

Recertification should assess real performance in practice and competence to continue to learn

Recertification programmes in the United States use examinations and performance assessments as "snapshots" of competence taken every 7-10 years

In other countries most programmes evaluate documented participation in continuing education as evidence of continuing competence as a specialist

The proposed continuous recertification programme uses computer technology to document self directed learning from practice and to monitor performance

Poor performers could be recognised early, given focused assistance and additional periodic examinations at testing centres, and if necessary their certificates could be rescinded

This is the fourth in a series of seven articles looking at international trends and forces in doctors' continuing professional development

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their professional lives. Twenty two of the 24 member boards of the American Board of Medical Specialties issue certificates, with expiry dates varying between seven and ten years. The incentive to get recertified is strong, for a valid board certificate has become essential for doctors in many communities in order to admit patients to hospital and claim the top reimbursement fees and salaries of a specialist. Reports that doctors who do not have specialty certification are falsifying certificates or claiming specialty certification on their curriculum vitae are increasing.

What does recertification entail?

The recertification procedures set up by the member boards of the American Board of Medical Specialties aim to encourage doctors to continue learning and keep up to date; give recognition to doctors who continue to meet the specialty board's standards; and remove certification status from doctors holding time limited certificates who fail to apply for recertification.

Most of the boards use a snapshot assessment of knowledge, skills, and performance. Written examinations, usually in the form of multiple choice questions, are used by all boards, and 11 require set credit hours of continuing medical education (CME), typically 50 hours a year in the three years before recertification. Performance is measured indirectly by report of licensure status, letters of recommendation from chiefs of healthcare organisations and hospitals, attendance at CME programmes, and independent assessment by peers and other health professionals. Some boards allow specialists to select their own form of assessment.

Recertification is not cheap. The member boards of the American Board of Medical Specialties charge doctors between \$533 and \$1255 to sit the written examinations and up to \$10 500 for a two day on-site visit. On-site review of practice has recently been discontinued,² and it is difficult and expensive to introduce more rigorous forms of assessment of clinical skills. Site visits, examinations using standardised patients, and case recall interviews¹⁷ have been found

to be too expensive or impossible to implement for large numbers of board certified doctors. Furthermore, obtaining hard evidence of the validity and reliability of such methods of assessment would entail extensive and expensive research—hence the reliance on written examinations.¹²

Driven to extremes by competition

Medical care in the United States is a competitive marketplace. Doctors in fee for service practice have to compete with large health corporations that own hospitals and doctors' practices. These corporations use the number of affiliated "board certified specialists" as an indicator of the "quality" of service they provide. Certification has also been used by *Consumer Reports*, a respected consumer organisation engaged in quality assessment, as a criterion in ranking "best hospitals" and "best healthcare plans." Patients have routinely taken to consulting directories such as the *Official ABMS Directory of Board Certified Specialists* or calling a freephone number to determine a doctor's certification credentials.

This pressure on doctors to produce documented if purely nominal evidence that they are competent and up to date has had undesirable side effects. One has been the growth of self designated "certifying boards" set up by specialty societies and by entrepreneurs. Most of these, of which there are around 150, have adopted names which mimic the names of the member boards of the American Board of Medical Specialties. Doctors who obtain certification certificates from these organisations are required to pass an examination, take out membership, and pay annual fees to retain their "board" status. The standards for these qualifications vary widely, and the many different forms of "board" certification cause concern and confusion for both the profession and the public. A second development has been the launch of a new certification programme, the American Medical Accreditation Program, by the American Medical Association.⁵ This programme allows non-certified doctors to obtain what the association terms "accreditation" as a specialist even if they have not completed recognised training programmes and obtained a certificate of satisfactory completion of specialist training. This move, which is likely to cause further confusion among the public, will need to be followed closely.

A third development has been the proliferation of CME programmes aimed at (and advertised as) teaching doctors how to pass board recertification exams. The essential question of whether these programmes provide education useful for practice is deemed to be of secondary importance.

Recertification and CME in other English speaking countries

Outside the United States, most postgraduate colleges have elected not to incorporate formal examinations into their recertification procedures. In many, the initial certification process amounts to more than a single exit examination, doctors being required to undergo frequent in-training evaluations over many years. The colleges then offer programmes for maintenance of competence, based largely on participation in formal

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educational activities. Most postgraduate recertification or CME programmes simply require a set number of hours of attendance, usually 50 a year, at recognised CME courses. More recently, weighted credit systems have been introduced in Canada; these recognise that some forms of CME are more effective than others at changing practice. Thus the MOCOMP system (see box) awards credits on the basis of the educational quality of the programme: traditional didactic sessions are rated at 1 credit per hour while interactive workshops based on audits of practice with opportunities to interact with faculty members receive 2 credits per hour.

In Australia, the Royal Australasian College of Physicians has led the way in incorporating recertification criteria that relate more closely to doctors' performance than attendance at traditional CME courses. Participation in quality improvement initiatives such as audits of practice, as well as attendance of traditional CME courses, is required. The college also has a unique physician assessment programme in which peers, co-workers, and patients rate doctors on their clinical management and their "holistic" and personal skills with patients.¹³ A recent pilot study in Canada showed that this method can provide reliable and meaningful assessments of doctors, and peer assessment may become a mandatory requirement for licensure in the province of Alberta.

Time limited certification is legally required of specialists in Australia and New Zealand, and in Canada it is required for membership of the College of Family Physicians of Canada.¹⁴ In the United Kingdom the royal colleges and specialist associations are piloting credit systems that are similar to the Australian model except that participation is voluntary, not mandatory. In Canada, certification as a specialist by the Royal College of Physicians and Surgeons is life long. Although there are no plans for introducing recertification procedures, the college is experimenting with self directed learning programmes.

Continuous recertification: the way forward?

Snapshot assessments every 7-10 years are a crude form of assessment of competence. A more effective way to maintain professional knowledge and performance is to introduce a programme of continuous recertification. We propose a programme based on a combination of audit of practice data and documented evidence of continuous learning in practice.

Practice performance data

Medical records provide data on patient encounters, prescriptions, other treatment modalities and follow up visits. Four member boards of the American Board of Medical Specialties already use such data, requiring doctors to submit computerised summary reports on patients: family practice,¹⁵ plastic surgery,¹⁶ obstetrics and gynaecology,¹⁸ and orthopaedic surgery.¹⁹ Managed care corporations routinely use computer technology to monitor doctors' performance, patient outcomes, and patients' views of doctors' attitudes. A continuous recertification programme could build on this technology.

In addition to assessments of their knowledge, decision making skills, and technical expertise, doctors

The maintenance of competence program (MOCOMP)

- MOCOMP is a voluntary continuing education program by the Royal College of Physicians and Surgeons of Canada to help specialists manage their continuing education themselves
- The PCDiary software in MOCOMP is used by physician subscribers to define their learning needs and keep a portfolio of learning (pearls of wisdom) generated from practice, reflection on clinical experiences, CME meetings, journal reading, and "hallway consultations"
- PCDiary software contains powerful searching, sorting, and report generating capabilities to encourage reflection and appraisal of learning entries
- A searchable database is generated from entries into PCDiary to produce a "question library" available on the internet that allows physicians to compare with peers their learning needs and practices. The question library also serves as a repository of identified medical education needs that is helpful for planners of CME
- MOCOMP has 10 000 specialists voluntarily registered out of the 30 000 specialists in Canada. Approximately 400 use PCDiary and 3000 use a paper version. Experienced users average 4-8 entries each month. All reports are easy to use and not time consuming. Some users report that MOCOMP motivates them to "take professional development seriously" and "to organise their learning"; others perceive they are more selective about attending educational conferences and meetings
- PCDiary provides summary reports that add a "living component" to the traditional curriculum vitae and have the potential to be used for renewing credentials of doctors
- MOCOMP contains the tools to enable doctors—including researchers, educators, and administrators—to move from the traditional medical school model of learning to self managed learning with reflection about practice experiences

should be assessed on their abilities to communicate with both their patients and their peers, to share the process of decision making, to work as members of a team, and to break bad news with empathy. Modern information systems will facilitate this form of multiple assessment, which could be made annually or even more frequently as part of a cycle of continuous recertification.

Continuous learning in practice

The foundations of quality patient care begin during training, but with rapid developments in medical knowledge doctors have to learn continuously in practice if they are to maintain high quality care.¹ More than ever, doctors need support systems to help them use feedback on their performance to plan and implement effective and individual continuing education programmes. Systems, such as the computerised maintenance of competence program (MOCOMP) in Canada are being set up to help them meet these needs.²⁵

The Royal Australasian College of Pathologists has piloted a similar software program to help its members to use learning portfolios as part of their maintenance of certification. Similar systems are also being explored in the United Kingdom.

Computer technology

Periodic examinations may be secondary to continuous evaluation of practice performance and keeping learning portfolios, but they undeniably have a place in continued medical education. Computer based examinations in particular are available at testing centres

worldwide through a combination of entrepreneurial companies and not for profit testing organisations.²³ The shift from paper tests to computer based tests has accelerated in recent years. For example, the recertification examinations of the American Board of Pediatrics and the American Board of Pathology are distributed on computer diskettes for use at home, and in 1997 the American Board of Orthopedic Surgery and the American Board of Anesthesiology ran their recertification programme only in computer testing centres. The American Board of Pathology has been operating such a centre for over two years and will double the centre's capacity by June.²⁴

Advanced multimedia computer technology, such as virtual reality environments, is being developed to help train doctors to perform invasive surgical and endoscopic procedures. This technology may also be used to evaluate how well the doctors carry out these procedures and other patient-doctor interactions. These medical "flight simulators" are already available commercially.²⁶ Within a decade they are likely to be used widely by medical schools and hospitals, both as learning tools and to evaluate doctors' performance, and also to provide remedial training where there is evidence of deficiencies in practice. Certifying boards and colleges could use these centres as a second step for more in depth assessments of clinical skill.

Conclusion

In the future, recertification programmes could require specialists to provide certifying boards with computerised summary reports of their practice experience and learning portfolios every 3-5 years. Clicking a mouse button or touching the keyboard would generate the recertification report. Much of the scheduling could be automated, and specialists could have automatic reminders about what information is needed; where in their computer reports it is located; and how, when, and where to send it. Doctors who fail to meet set standards, or those who have not practised for some time, would have to undergo more in-depth educational assessment so that an educational "prescription" of continuing education could be drawn up to help improve their performance.

Continuing learning must be seen as a routine part of daily practice. Objective evidence of the quality of care can be obtained by integrating audit and self assessment programmes into routine clinical practice. Feedback on the results should be given on a regular basis and regarded not as a threat but as an opportunity to learn. Regular appraisal of practice, using multiple assessments, will also allow early recognition of doctors who are performing badly and need focused help or remedial education, or their licence removed.

The biggest obstacle to implementing continuous recertification is professional conservatism about learning methods and computer technology. These attitudes must change, for computer literacy will soon be essential for medical practice. At the same time it is increasingly being accepted that all medical students need to be taught about the concepts of adult learning so that as doctors they go on to become lifelong learners.²⁸

It may take time to debate the merits of continuous recertification, but in our view this strategy is consistent

with the evidence on how adults learn and keep up to date,¹ feasible and affordable with current technology, and crucial to the provision of high quality medical care.

The views expressed here are the authors' and do not represent either the American Board of Medical Specialties and its member boards or the Royal College of Physicians and Surgeons of Canada.

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