Education

Éducation

Dr. Donen is Associate Dean and Head, Department of Continuing Medical Education, University of Manitoba, Winnipeg, Man.

This article has been peer reviewed.

CMAJ 1998;158:1044-46

No to mandatory continuing medical education, Yes to mandatory practice auditing and professional educational development

Neil Donen, MB, ChB

Summary

THE ISSUE OF MANDATORY CONTINUING MEDICAL EDUCATION (CME) is controversial. Traditional measures mandate only attendance, not learning, and have no measurable performance end points. There is no evidence that current approaches to CME, mandatory or voluntary, produce sustainable changes in physician practices or application of current knowledge. Ongoing educational development is an important value in a professional, and there is an ethical obligation to keep up to date. Mandating self-audit of the effect of individual learning on physician's practices and evaluation by the licensing authority are effective ways of ensuring the public are protected. The author recommends the use of a personal portfolio to document sources of learning, the effect of learning and the auditing of their applications on practice patterns and patient outcomes. A series of principles are proposed to govern its application.

Résumé

LA QUESTION DE L'ÉDUCATION MÉDICALE CONTINUE (EMC) obligatoire suscite la controverse. Les mesures traditionnelles n'imposent que la présence et non l'apprentissage et ne comportent aucun rendement final mesurable. Rien n'indique que les méthodes actuelles d'EMC, obligatoires ou volontaires, modifient de façon durable les pratiques des médecins ou l'utilisation des connaissances courantes. L'acquisition continue de savoir est une valeur importante pour un professionnel qui a une obligation éthique de se tenir à jour. L'imposition de l'autovérification de l'apprentissage individuel et son évaluation par l'ordre constituent un moyen efficace d'assurer la protection du public. L'auteur recommande d'utiliser un portefeuille personnel qui décrit les sources d'apprentissage et l'effet du savoir acquis et d'en vérifier l'application aux tendances de la pratique et aux résultats pour les patients. Il propose une série de principes pour en régir l'application.

The stated intent of introducing mandatory continuing medical education (CME) is to ensure continuing satisfactory performance by physicians.[1,2] Some Canadian licensing authorities are reviewing this option. The purpose of this article is to stimulate discussion and action on practical approaches to this issue. The arguments for and against mandatory CME are reviewed. I propose an alternative approach that, I believe, ensures ongoing professional development. It deals with a concept only and does not delve into the details of what to measure, or how to facilitate or enforce. It does not deal with recertification, for which there may be a role.

An estimated 20% to 50% of primary care practitioners are not aware of, or not using, new evidence relating to common current practices.[3] Several studies have shown a progressive decrease in the level of currently applicable knowledge after more than 10 years in practice.[4–6] These findings imply a need for physicians to undertake knowledge and skill development to ensure the continued relevance of their medical care to the changing health care environment. The argument of lack of time to engage in necessary educational development is at odds with the

accepted characteristics of a professional and the ethical obligation of practitioners to keep up to date.[7]

It is important to stress that outcome, rather than process, governs the effectiveness of any CME intervention. There are 3 main concerns with the traditional approach of using CME attendance or credits as a means of claiming that physician competence is being maintained. First, one cannot mandate learning, only attendance. Second, there is a lack of measurable performance end points. Third, CME requirements are different for physicians at different stages of their career. This makes it difficult to establish criteria that apply to physicians with narrow areas of specialization or restricted practices. The main arguments for and against mandatory CME are summarized in Table 1.[2,8–12]

In the last decade greater attention has been paid to the application of principles for adult learning to health care education.[13] These principles include an awareness by adult learners of their needs, identification of solutions to problems encountered, learning based on experience, self-directed education based on perceived responsibility and use of the most efficient learning method resulting from cumulative experiences. We need to recognize learning that occurs in both formal settings (e.g., attendance at organized meetings) and informal settings (e.g., reading around a patient case problem).

Table 1: Arguments for and against mandatory continuing medical education (CME)[2,8–12]

Arguments for mandatory CME
Ongoing professional education of physicians is necessary to protect the public
Involvement of every practitioner in educational programs is guaranteed
Continued practice licensure accountability is guaranteed
Mandatory CME is a transition phase into more effective systems of professional accountability
An informed professional awareness is maintained
Physicians will engage in education to address needs they might otherwise ignore
Well-designed programs can influence effective practice
Professional and geographic isolation are minimized
Performance of the "reluctant" practitioner is improved
Arguments against mandatory CME
Professionals should be accountable for their own effective performance, not participation; mandatory CME removes this individual responsibility
All that can be mandated is attendance; mandatory CME does not guarantee change in attitude, motivation, ability to learn or change in current practice patterns
Principles of adult learning are violated; mandatory CME is punitive to those who participate voluntarily
Physicians will depend on traditional programs rather than self-responsibility for learning
Mandatory CME is needed only for the few uncommitted physicians; most physicians continue their own self- education
Performance of the incompetent physician will not be improved
Evidence that it results in improved practice is lacking
Programs delivered are not consistent and may lack relevance to practitioners' needs
Proliferation of programs of questionable quality may result
Policy of mandatory CME is expensive
Use of more valid and reliable measures of competence is reduced

Systematic reviews on the effectiveness of various CME strategies on professional practice have shown that, although changes in behaviour are achieved, there is no single strategy effective in all settings.[14,15] The key question is whether the changes are sustainable. A recent study suggests not, unless there is repeated feedback.[16]

It thus appears that current approaches to mandatory CME or recertification will not achieve their stated objectives. There is still the need for regular assessment of competence in practising physicians. This requires ensuring some form of professional educational development and establishing core criteria that all physicians must complete as part of their CME and ongoing licensure requirements. One way to achieve this is mandatory auditing of physicians' practices.

I propose that the following principles be included in a model for mandatory practice auditing and professional educational development.

- The physician, and the medical profession, have a moral obligation to ensure continuing professional development (CPD) so that physicians are current in their knowledge and competent in practice performance.
- Principles for adult learning should be built into this educational development.
- Society and its advocates, the licensing authorities, have an obligation to identify regularly areas of new knowledge and practice competence that physicians must use to ensure ongoing licensure.
- The physician must be able to demonstrate that any professional educational development undertaken has confirmed that her or his current practice approach is in keeping with acceptable standards and current practices, or that there has been a change in clinical practice behaviour to meet the recommended changes.

The licensing body would thus define the standards and mandate which areas of core knowledge or clinical practice are to be included in the physician's CME requirements. The professional responsibility of the physician would be to ensure that, in addition to any reported CME, these requirements are met. This model would permit physicians to develop niches of practice expertise, yet "restrict" delivery of medical care to areas of maintained competence.

Each physician would be required to maintain a CPD portfolio, which would be available to the licensing body on request. The 3 components of the portfolio would em-

phasize not only learning but also whether the learning has had any effect. The components are as follows.

Learning process: Documentation of sources of learning (formal or informal) by the physician.

Evaluation and educational plan: Documentation of the effect of the learning process on the physician's current practice (i.e., is the current mode of practice acceptable, or is there a need to alter practice behaviour?).

Educational outcome: Documentation of the actual effect of the learning on the delivery of clinical practice by the physician.

Physicians would have to maintain documentation of their personal evaluations of any learning processes in which they have participated. These entries, summarizing the points obtained from the learning process, would provide some indication of new knowledge acquired. The effect of the learning process on the physicians' current practice together with their own recommendations would produce an educational plan. The physicians would perform regular self-audits of their practices documenting the outcome of the educational plan in the portfolio. This would give a measure of a change in behaviour related to the "new" knowledge and plan. The CPD portfolio would form part of a physician's official record of ongoing medical education and would be reported to the licensing body as part of the annual license renewal process.

Portfolio-based learning programs have as their basis the promotion of reflective practice.[17] The combining of educational portfolios with self-audit of practices is not a new concept. National bodies elsewhere have endorsed this approach as a means of ensuring appropriate maintenance of professional standards and practice assessment.[18,19] Several authors have either recommended or shown that interventions that reinforce changes in practice patterns are more successful than formal forms of CME in bringing about behavioural change.[20–23] The use of feedback associated with the audit process has been shown to be effective.[15,20,24] The mandatory component of the audit provides strong reinforcement to maintaining the change.

Licensing authorities can use portfolios as a basis for goal-directed practice audits, assessing ongoing practice performance and patient outcomes. For physicians delivering an acceptable level of care, the process should be used as a means of recognizing and encouraging continued learning and reflection. Poor performers, however, will require remediation assistance and a change in attitude if they are to continue to practise medicine.

Queeney and English,[12] in their review of CME, make a plea that "it is high time the . . . debate gives way to the far more productive emphasis on ensuring that continuing education . . . does contribute to improved clinical practice." It is time to move on.

References

1. Kremer BK. Physician recertification and outcomes assessment. *Eval Health Prof* 1991;14:187-200.
2. Phillips LE. Is mandatory continuing education working? *Mobius* 1987;7:57-64.
3. Williamson JW, German PS, Weiss R, Skinner EA, Bowes F. Health science information management and continuing education of physicians: a survey of US primary care practitioners and their opinion leaders. *Ann Intern Med* 1989;110:151-60.
4. van Leeuwen YD, Mol SSL, Pollemans MC, Drop MD, Grol R, van der Vleuten CPM. Change in knowledge of general practitioners during their professional careers. *Fam Pract* 1995;12:313-7.
5. Day SC, Norcini JJ, Webster GD, Viner ED, Chirico AM. The effect of changes in medical knowledge on examination performance at the time of recertification. *Proc Annu Conf Res Med Educ* 1988;27:139-44.
6. Ramsay PG, Carline JD, Inui TS, Larson EB, LoGerfo JP, Norcini JJ, et al. Changes over time in the knowledge base of practicing internists. *JAMA* 1991;266:1103-7.
7. Calman K. The profession of medicine. *BMJ* 1994;309:1140-3.
8. Chouinard JL. Compulsory continuing medical education: it's just around the corner. *CMAJ* 1980;122:595-600.
9. Stross JK, Harlan WR. Continuing medical education revisited. *Mobius* 1987;7:22-7.
10. Ward J. Mandatory medical education. *Med J Aust* 1988;148:237-9.
11. Wright JM. Continuing medical education in psychiatry. *Aust N Z J Psychiatry* 1991;25:111-8.
12. Queeney DS, English JK. *Mandatory continuing education: a status report*. No 357 of Information series. Columbus (OH): ERIC Clearinghouse on Adult, Career and Vocational Education, Ohio State University; 1994. Accession no ED372306.
13. Knowles M. *The adult learner: a neglected species*. Houston: Gulf Publishing; 1990.
14. Davis DA, Thomson MA, Oxman AD, Haynes B. Changing physician performance: a systematic review of the effect of continuing medical education strategies. *JAMA* 1995;274:700-5.
15. Oxman AD, Thomson MA, Davis DA, Haynes RB. No magic bullets: a systematic review of 102 trials of interventions to improve professional practice. *CMAJ* 1995;153:1423-31.
16. McCowan C, Neville RG, Crombie IK, Clark RA, Warner FC. The facilitator effect: results from a four-year follow-up of children with asthma. *Br J Gen Pract* 1997;47:156-60.
17. Royal College of General Practitioners. *Portfolio-based learning in general practice. Report of a working group on higher professional education*. Occasional review 63. London: The College; 1993.
18. Standing Committee on Postgraduate Medical and Dental Education. *Continued professional development for doctors and dentists*. London: The Committee; 1994.
19. Royal Australasian College of Physicians and Australian College of Paediatrics. *Maintenance of Professional Standards Program*. Sydney: The College; 1996.
20. Tamblyn R, Batista R. Changing clinical practice: Which interventions work? *J Contin Educ Health Prof* 1993;13:273-88.
21. Prochaska JO, Redding CA, Evers KE. The transtheoretical model and stages of change. In: Glanz K, Lewis FM, Rimer BK, editors. *Health behavior and health education: theory, research and education*. 2nd ed. San Francisco: Jossey-Bass Publishers; 1997. p. 61-84.
22. Grol R. Beliefs and evidence in changing clinical practice. *BMJ* 1997; 315:418-21.
23. Adelson R, Vanloy WJ, Hepburn K. Performance change in an organizational setting: a conceptual model. *J Contin Educ Health Prof* 1997;17:69-80.
24. Mugford M, Banfield P, O'Hanlon M. Effects of feedback of information on clinical practice: a review. *BMJ* 1991;303:398-402.

Reprint requests to: *Dr. Neil Donen, Department of Continuing Medical Education, University of Manitoba, S203–753 McDermot Ave., Winnipeg MB R3E 0W3; fax 204 789-3911; neil_donen@umanitoba.ca*