Continuing Medical Education in the United States: a Critique

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INTRODUCTION

DURING THE last half of the twentieth century there has been such an explosion in medical information that knowledge has doubled every few years. Much of what one learns in medical school is out of date within a decade after leaving formal educational programmes. The concept of lifelong learning now seems more important than ever.

For these and other reasons, there has been a marked increase in public and professional demand for accountability. Prior to about 1970, the practices of most trial lawyers in the United States was built upon suits arising from injuries in automobile accidents. Their practices were decimated with the advent of "no-fault" automobile insurance, and the lawyers quickly turned to the medical liability field in its place. Lawyers actively advertised and otherwise sought in many ways for patients who felt they had not received appropriate care from their physicians or their hospitals. In the newspapers and other media reports of ever increasing awards (now often in the multi-million dollar range) caused a "feeding frenzy" by both patients and lawyers alike for these huge awards. As the media mounted an increasing attack upon physicians supposedly "guilty" of poor care, doctor bashing became fashionable at all levels. In New York State particularly, "high" government officials, both elected and appointed, stated over and over again in many forums that "10% of physicians were unfit to practice". A wide variety of surveillance activities (of both physicians and hospitals) by 8–10 different groups was mounted to identify substandard care, and to promote "corrective measures". Demands that physicians be forced to keep up-to-date came from the profession itself, as well as from the government and the public, including some rather vociferous and unsophisticated consumer groups. A certain amount of continuing medical education (CME) each year then became a requirement to maintain hospital privileges, to continue to belong to almost all medical associations and societies, and (in many states) were required to re-register one's license.

Associated with requirements for CME came the concept that physicians must obtain such CME "credits" from organisations which had, in turn, been "certified" to provide quality continuing education. The Accreditation Council for Continuing Medical Education (ACCME) was organised and set high standards for some 500 organisations which provided continuing medical education at the national level. The ACCME not only developed the standards but developed mechanisms to ensure that the standards were, in fact, met by these "CME providers". In

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addition to the 500 or so national organisations providing CME, there were an additional 1800 or so organisations accredited by the state medical associations for the provision of CME within each state.

CME thus became big business and travel organisations quickly collaborated with professional societies and other providers to develop "educational" meetings in sometimes "exotic" places. Some of the larger meetings would host 25 000 or more attendees.

In this paper we want to briefly discuss the following:

(1) Some of the ways in which we determine the "educational needs" of physicians (so-called "needs assessment").
(2) The *methods* which we use for education, including some educational principles, plus comments on "self-directed learning", and the developments of so-called "practice parameters".
(3) Some of the "players" in CME and their roles.
(4) A description of the ACCME.
(5) Some comments on what we see as the pros and cons of much of this activity.

"NEEDS ASSESSMENT"

In the clinical arena, the vast bulk of CME consists in transmitting new knowledge (ideas, technology, skills, etc.) to physicians whose practices are such that they need to incorporate this new knowledge into their daily patient care activities. Thus, each specialty group tries to evaluate what is new (and valid) in their particular field and then transmits this new knowledge to physicians practicing in that specialty field by means of journals, books, meetings, workshops, courses, and many other ways of communicating ideas and knowledge. There is a necessary gap between the first appearance of new knowledge and its validation, wide dissemination, and finally, acceptance and incorporation into routine practice. Physicians tend to be conservative and a new idea has to be proven true beyond reasonable doubt before it is generally accepted. As new physicians enter a given field of practice, they have to learn not only what is new, but all that is already "standard" knowledge, as well as that which is no longer "true" or "valid". Thus, for the big "providers" of CME (see below) the most important way to identify the educational "needs" of their learners is to identify the knowledge in a particular field (new, old, outmoded) and devise educational methods to transmit that knowledge.

But there are other ways to identify educational "needs". One is a by-product of examinations (e.g. for board certification, licensure, recredentialling) to test what a physician knows. Since these examinations identify not only what a physician knows, but what he *doesn't* know, the lack of knowledge (or skill, or attitude) identifies an educational "need", and CME providers (or the individual physician himself) should devise ways to overcome this lack of knowledge. If the examination is given to a large group of physicians, identification of a major lack of knowledge in the same question (or questions) identifies a major

failure of the previous educational process, and thus a major educational "need". One way that (providers" of CME could improve their process (particularly when knowledge of the learners' backgrounds is lacking) is to give a test to determine what is already known and not known. Except in those circumstances where the "providers" think that "reinforcement" of knowledge is important, they can then concentrate on "teaching" what the learner does not know. Indeed, a "self-assessment" test (e.g. the American College of Surgeons "SESAP") is a good way for both learner and provider to identify educational "needs". It should be noted that many such tests devised for large groups of physicians may include questions not suited to a particular physician's practice.

Another way to determine educational "needs" is at the local hospital level where poor outcomes due to inadequate knowledge on the part of individual physicians are identified through analysis of deaths and complications, tissue committee reports, record review, incident reporting, and other "Quality Assurance" activities. The chief of each service can determine whether individualised education of a particular physician is activated (on a confidential non-punitive basis) or if the same "outcome" problem is common to many physicians on the service, whether a more extensive general educational "need" is present that requires action.

"Surveillance" of poor results of care by a state level organisation can also identify educational "needs". The state-wide "peer review" organisation (IPRO in New York State) screens and reviews records of all "Medicare" patients (over 65 years old) anc can identify not only individual physicians problems, but those for all physicians in the state as a group. Publication of a list of the 10 most common problems in patient care statewide last year resulted in specialised educational programmes to prevent future occurrences.

Comparison of large groups of physicians with another regarding patterns of practice (e.g. prescription writing), comparison of one city (or region) with another (caesarian section, use of coronary by-pass, incidence of tonsillectomy, etc.) has revealed major differences, some of which can be corrected by educational programmes.

And, there are educational "needs" not easily identified by other means and often not recognised as a need by either "learners" or "providers". In the cancer field, many of us feel that better knowledge or epidemiology, prevention, and screening is important for all general physicians and oncologists, but they never seem to be taught to any degree at any educational level and are rarely incorporated appropriately into one's practice patterns.

Finally, there are educational objectives and "needs" in the "behavioural domain" (Krathwohl) which are almost never identified nor taught. Many of our failures as physicians are not because of lack of knowledge but from faulty behavior or incorrect attitudes. We believe these can be identified and addressed.

Most major CME "provider organisations" develop their educational materials and programs with little or no input from the "learners". We believe there should be a lot more interaction between the "faculty providers" and the "physician learners" as to what the learners want and need. There are a variety of ways this can be accomplished—questionnaires, pre-tests for courses, self-assessment tests with feedback to providers, "focus-group" formats, etc. As noted below, we feel that the more the learner is involved at all stages in his education, the more effective and useful will be the outcome. Indeed, an individual faculty

"provider" could do well by opening his "lecture" or "seminar" by asking the learners, "What do you want to know" and "Why"?

At the hospital level the growing concept of "continuous quality improvement" says that most problems within health care are not due to physician staff deficiencies, but to system problems that are controlled by management (Berwyck, 1989). The fact is that some "needs" contain elements of both; careful attention should be paid to them and their interaction.

EDUCATIONAL PRINCIPLES AND METHODS

As noted, while the vast bulk of continuing medical education is achieved through individualised reading of books, journals, etc. the 500 providers noted above are primarily utilising lectures and courses. Although seminars, self-assessment programmes, computerised materials, interactive video disks, etc. are used increasingly, educators have long recognised that the more involved the learner is in his own education (i.e. interactive learning), the more he learns, the better he retains it, and the more he is apt to use it. There are several important learning principles that are recognised increasingly by the more sophisticated providers of CME (see chart). Many feel that the best continuing medical education of all is when an individual physician has an individual patient problem about which he gathers information from a variety of sources, puts that information together, and utilises it in the interest of his patient. It should also be noted that the bulk of our CME effort in lectures and courses consists of attempts to transmit bits of information, knowledge, facts, principles, and concepts. Further, it is generally agreed that the acquisition of this kind of material (once identified as important) is best done through individualised learning without the intercession of the teacher, and that the best role of the teacher is to get feedback from the students about the information, questions they have, and then dealing on an interactive basis about how the information is used, (how to synthesise, how to analyse, and how to problem-solve). It should be further noted that educational objectives include not only those in the cognitive domain (noted above), but also in the "domains" of skills and attitudes. Certainly the attitudes that physicians bring to patient care have a great deal to do with the outcome of that care.

The vast bulk of CME is *personal and self-directed* tailored to one's own interests, practice, and perceived needs. Self-directed learning is enhanced by a variety of "helpers"—it is not a completely solitary activity. The best of our CME "providers" will devise more innovative ways in which to identify and provide various kinds of support for those interested in enhancing their own programs of self-learning. Educators must instill in medical students the motivation for life-long learning and help them develop their own personal self-learning programmes utilising all the available resources. If physicians are going to continue to be required to obtain a certain number of CME "credits", we must develop mechanisms whereby credits can be given for self-directed learning—for most of us think this is the best learning and usually directly applicable to one's own practice. Most of self-directed learning in the future will centre on computer generated information for individualised patient-oriented decision making. Those acting as facilitators for self-directed learning must build on this concept.

There has been a growing interest in the possibility of developing "practice parameters", or "guidelines" for care of specific patient problems. These include "decision trees", or algorithms. A number of groups, particularly including the American Medical Association (AMA), together with the major

speciality organisations have been working extensively in this area. There are now at least 2300 sets of "practice parameters" for specific patient problems. While the AMA strongly opposes the use of practice parameters for anything other than as educational tools, others, including government regulators, want to use these as standards of care; for reimbursement, and for "recredentialling" for practice privileges.

THE PLAYERS

(a) Some of the biggest players in the CME enterprise are the specialty organisations which sometimes have up to 30 000 physicians attending an annual meeting with a wide variety of educational opportunities in different formats. These organisations have the resources to produce rather sophisticated self-assessment programmes and other educational materials, conferences, and seminars throughout the year. Most of the big speciality organisations also have many state chapters doing the same kinds of educational activities.

(b) The major health associations, such as the American Cancer Society, American Heart Association, American Lung Association, with their large resources, provide a number of national meetings and educational materials for physicians and patients.

(c) The nation's 128 medical schools all have some CME programmes, primarily lectures or courses utilising their own faculty.

(d) The AMA and its affiliated state and county association still act as providers of continuing education, but the specialty societies have taken over the bulk of the CME for their members. The AMA continues to play a role in setting standards and ensuring that these standards are met through its involvement in the ACCME.

(e) Federal and state governments continue to play a role in a variety of quality control efforts, particular by identifying problems in the care of patients and thereby "educational needs".

(f) The Alliance for Continuing Medical Education (ACME), puts on an excellent 4 day meeting annually covering all aspects of CME. They have also produced a "CME primer" of concepts, principles, and practices in the CME field which, to my mind, is essential reading for anyone involved in CME. Two other important groups are the Society of Medical College Directors of CME, and the Association of Hospital Medical Education. This last organisation is very important because many of us believe that in today's world hospitals should be the major centre of all sorts of medical education and quality control activities, including peer review.

THE ACCREDITATION COUNCIL FOR CME (ACCME)—SETTING STANDARDS

U.S.A. medical school education has become among the best in the world, primarily because of our voluntary process of setting strict standards for medical schools and making certain that they are adhered to (a process begun in the early years of the 20th century). A similar process of setting standards for residency training and doing site visits to make sure the standards are, in fact, kept has made our residency training programs outstanding. In the field of continuing education, however, since so much of it is personal and self-directed, and involves individualised reading of books, journals, etc. the process of setting standards and enforcing those standards is more compli-

cated. What we have done is to develop an organisation (ACCME) which sets standards felt to be necessary for the accreditation of some 500 "providers" of CME, and trying to ensure that those standards are followed. The ACCME has seven "essentials" or guidelines which all the CME providers must meet to be accredited. Perhaps the most important of these "essentials" is "needs assessment" noted in the introduction. Surveys, (including site visits to these organisations), are done to ensure that the essentials are, in fact, met. The ACCME is composed of representatives from seven different organisations (see chart).

Some important learning principles

1. CME is personal and self-directed. Only about 10% of CME comes from formal activities. The most valuable learning comes from reading.
2. "Interactive learning" where physicians are actively involved is much more effective than "passive learning" (e.g. lectures).
3. Learning is most effective when the physician has an immediate use for what is learned (e.g. when he has a particular patient problem).
4. Physicians learn differently from one another (e.g. visual learning more important for some learners than for others).
5. Learning is consolidated by feedback, especially by "interactive" discussion after using what is learned.
6. When developing "formalised" learning activities, it is important to know the background and experience of the learners.
7. Learning which is not used (or used rarely) fades quickly.
8. The ability to analyse, synthesise, and problem-solve are much more important than the ability to memorise.
9. The attitudes that the physicians brings to the care of his patients are just as important as the knowledge he has (i.e. educational objectives in the "affective domain" need much more attention).

Membership of ACCME

There are seven member organisations of ACCME:

1. The American Board of Medical Specialities (three representatives).
2. The American Hospital Association (three representatives).
3. The American Medical Association (three representatives).
4. The Association of Medical Colleges (three representatives).
5. The Association for Hospital Medical Education (one representative).
6. The Council of Medical Specialty Societies (three representatives).
7. The Federation of State Medical Boards (one representative).

Plus a federal representative and a public representative who are also members.

ETHICAL CONCERNS

Before concluding, I need to make some comments about ethical concerns in the CME enterprise. W.C. Felch has divided these into three areas: those relating to physician "consumers" of CME, those relating to "providers" of CME, and those relating to other groups (particularly certain "financiers" of CME). Problems in each of these areas include:

Physician consumers

(a) Physicians who utilise CME activities primarily as a tax deductible vacation.

(b) Physicians whose primary purpose is to obtain "CME credits" which may be required to maintain membership in a professional society or for re-registration of a license to practice, etc.

(c) Physician consumers who accept expensive gifts, free entertainment, free trips to attend CME activities more designed to promote a drug or product than to educate.

(d) Some physicians go so far as to register their presence at a meeting, but never attend *any* of the educational offerings.

"Providers" of CME

(a) Travel organisations, entrepreneurs, and others whose primary interest is to make money from the CME enterprise, with little or no concern for its educational value to the participants. Promotional brochures emphasise the travel of entertainment aspects of the offerings.

(b) Faculty who are willing to deliberately promote (or assist in promoting) a drug or product in return for a variety of emoluments (free travel expenses, high honoraria, etc.) offered overtly or covertly by the sponsoring or financing groups.

(c) "Promotional providers" who are so lax in their quality control concerns that they allow almost anything to be called "CME activities"—e.g. the only CME portion of the promotion is to provide a videotape to be looked at in the physician's hotel room whenever the "participant" wishes.

Other groups

(a) Commercial firms who offer to support a meeting or conference with the proviso that a significant promotion of their product will occur.

(b) Some commercial firms have chartered planes to an international conference and filled them with physicians who prescribe their products.

Because CME has become big business, a few promoters have abused the system and some physicians have been tempted into unethical practices. Dr Kessler (Director of the Federal Drug Agency) has written of the abuses. The American Medical Association has convened two national conferences bringing together representatives from industry and the profession and progress has been made to minimise the problems. The Author's concern is that setting up a monitoring process for all CME

programmes simply adds to the bureaucracy (and expense) utilising resources that would be better spent in more innovative CME activities. Excessive regulations become counterproductive. Perfection is impossible. If we are to avoid strangling the CME enterprise, we must be willing to allow some minor abuses.

CONCLUSIONS

As noted above, in recent decades there have been many factors causing a marked increase in CME activities at all levels by a wide variety of organisations. Most of this activity has been useful, even though the majority of CME programmes have consisted of formalised lectures and course ("passive learning") with relatively little "interaction" of the "learner/participant". And it is difficult to document clearly any improvement in the quality of care given to patients as a result. Nevertheless, the tremendous growth in the CME enterprise has encouraged and supported an increasing number of educators who are applying principles of learning that are much more likely to result in more efficient learning and in physicians using what they learn to benefit patients.

Some of the negative aspects of this explosion in CME activity has been the development of an increasing regulatory bureaucracy which tends to divert significant resources from the more important aspects of CME. A lot of money can be made in CME/travel programmes and the system is abused when travel and entertainment activities far outweigh the educational value. One may be successful in marketing a CME course but it does not necessarily follow that the participant will learn something useful nor that he will apply it in the care of his patients.

The future of our CME enterprise should be focused increasingly on personal self-directed learning integrated into the problem faced in the care of one's own patients, and our CME "providers" should facilitate this process in as many ways as possible.

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