Ideas underlying both professional and public attitudes toward continuing education in clinical laboratory science are examined, and the history of the American Society for Medical Technology (ASMT) in continuing education is traced. Continuing education may be defined as any systematic effort developed by a clinical laboratory scientist to update and expand knowledge and skills. A pertinent issue is whether mandatory or compulsory continuing education has any demonstrable beneficial effects on the health care of the public and on the provision of timely and effective care. It is suggested that more research is needed to determine how, or if, continuing education affects the competence of the laboratory professional's performance. All continuing education programs sponsored or approved by ASMT should: identify participant's perceived needs and needs demonstrated by proficiency tests, performance evaluations, or accreditation inspections: specify financial and manpower resources: determine whether behavioral objectives correlate with needs: base course content and instructional strategies on objectives to maximize transfer of knowledge of skills: and evaluate student learning and long-term course outcomes. It is suggested that the upsurge of mandatory continuing education during the 1970s is almost certain to continue, and that licensing or certification is increasingly becoming prevalent. Examples of continuing learning experiences under the following categories are identified: formalized and nonformalized learning experiences: self-directed learning, participation in ASMT at various levels, formalized tours, and program contribution for continuing education. (SW)
CONTINUING EDUCATION AND THE

RELATIONSHIP TO THE PROFESSION

By

Jacqueline Parochka, Ed.D.
Nancy Barnett, Ph.D.
Deborah J. Del Junco, M.S., MT (ASCP)
Sarah L. Dumeyer, M.S., MT (ASCP)
Sharon Ehrmeyer, M.S., CLS, MT (ASCP)
Linda Hawn, M.S., MT (ASCP)
Dona Knapp, M.A., MT (ASCP)
Carol McCoy, N.S., MT (ASCP), CLS

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

“PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Jacqueline Parochka

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC).”
INTRODUCTION

Rapid changes in technology and the adaptation of the role of the laboratory to current health care have demanded that clinical laboratory scientists continue to learn in order to perform competently. Initial professional training provides the base for development within the field of clinical laboratory sciences. Continuing education provides a way of expanding and updating that base of knowledge and skills.

This paper explains some of the ideas which underlie both professional and public attitudes toward continuing education, traces the history of the American Society for Medical Technology (ASMT) in continuing education, describes issues in continuing education attitudes, identifies unresolved issues, and describes a mechanism to more closely relate continuing education and continued competence. Finally, the paper concludes with expected future trends.

DEFINITIONS

In order to facilitate the reading of this document the terms are defined in the beginning so the reader is able to keep the concepts separate as the paper progresses.

Continuing Education: Continuing education may be defined as any systematic effort developed by a clinical laboratory scientist to appropriately update and expand knowledge and skills. Continuing education is composed of any education or training which serves to maintain, develop or increase the knowledge, interpretive and reasoning proficiencies, applicable technical skills, professional performance standards or ability for interpersonal relationships that a clinical laboratory scientist uses to provide the service needed by the public.

Competence: Initial competence is determined by successful completion of an approved training program. Continuing competence is defined as lifelong study to maintain judgment to know what to do and not do. (Vandewater, 1979)
ASSUMPTIONS

Continuing education has been promoted as a response to a need for continued professional competence. The assumptions behind this movement are many. Some of these assumptions follow.

The supposed connection between professional competence, the acknowledged purpose of continuing education, and continuing education is summarized by Watts (1977):

... for a number of reasons, continuing professional education is becoming tied to continuing professional competence. The logic in general appears that if education made (one) competent in the first place, then continuing education should make for continued competence. (p. 220)

A number of things quickly surface as possible or even probable components of competence. The most obvious is the need for current scientific or cognitive knowledge. A competent professional must also have up-to-date practice skills. These are of several kinds: technical skills, managerial skills, problem-solving skills, and communication skills for interacting with patients and others who are properly involved in the care of a patient. In addition, a competent professional should have attitudes of caring and concern and respect for the dignity, the rights and the personal values of the patient. It is also likely that a competent professional should not be wasteful of anyone's time or money. ("Continuing Medical Education and Continuing Professional Competence," 1977) There should be cost effectiveness in administering the laboratory techniques and a favorable cost benefit for the diagnostic and treatment procedures which are requisitioned and carried out.
Whether one accepts or rejects such statements as the half-life of most medical information is approximately five years, or the amount of medical knowledge is doubling every eight years, there is general acceptance by health professionals and the public that practitioners in any field of health care must keep up-to-date. Some of the basic concepts that describe and distinguish a profession as being different from a trade or a technological skill involve the idea that a profession requires "a lifetime of learning," and that members of a profession who possess a body of knowledge relating to the profession are obliged to teach others in the profession so that the people may be served better. ("Relicensure, Physician Competence, and Continuing Medical Education", 1971)

HISTORY OF CONTINUING EDUCATION WITH ASMT

On January 1, 1974, the American Society for Medical Technology implemented the program entitled Professional Acknowledgement of Continuing Education (P.A.C.E.). Through the P.A.C.E. program, continuing education activities are received, program quality determined, continuing education units assigned and participant records assured. Records are based on the Continuing Education Unit (CEU), Individual Education Unit (IEU) and college/university semester hour. ASMT has taken steps to recognize those individuals who actively participate by designating P.A.C.E. setter and P.A.C.E. maker status. Since April 1978, all ASMT members are automatically enrolled in the P.A.C.E. program when they join the organization. (Bennett and Parochka, 1979)

ISSUES

Voluntary versus Mandatory Continuing Education: Mandatory or obligatory continuing education as a condition for the continuing practice and a basis for professional rights and privileges has its origins in the efforts of those practitioners who hoped to convince the public that abuses of a small minority of practitioners would be controlled through mandated education. (Fenninger, 1979)
The first question to be examined is whether mandatory or compulsory continuing education has any demonstrable beneficial effects on the health care of the public and on the provision of timely and effective care. If it is found that mandatory continuing education cannot be demonstrated to serve the public, then such requirements should be rescinded because of their potentially adverse effects on education. (Fenninger, 1979)

According to Apps (1979), "there is no evidence or research to show that mandatory education credits make any difference in the ensuing performance of professionals." Apps (1980) stated four assumptions, all of which can be disputed, about mandatory continuing education. These are:

1. Every profession has lazy or uncaring persons who do not keep abreast with their field.
2. With increased knowledge, professionals will be more competent caring.
3. Someone else knows better than a professional what that person should learn and how it should be learned.
4. All persons learn in one way and that all knowledge and skills can be learned in one setting.

Other studies on continuing education confirm Apps' observation that there is little data to show that mandated continuing education has changed any professional behavior promptly or substantially.

Unresolved Issues: It is not yet clear what impact continuing education has on laboratory performance and ultimately patient health. More research is needed to determine how, or if, continuing education effects the competence of the laboratory professional with regard to their performance. This kind of data is essential to facilitate appropriate decisions about voluntary vs. mandatory continuing education. Carefully designed studies must explore and
examine all outcomes of continuing education. While the CEU's remain controversial in their ability to prove continued competence, continuing education activities have played a role significant enough that many health care professionals required these units for maintenance of a credential.

CONTINUING EDUCATION ACTIVITIES

Since many health professional organizations are currently relying on continuing education activities to maintain a credential, examples of acceptable continuing education activities should be outlined. In addition, continuing education credit should be awarded to individuals who provide evidence that they have made an improvement or an achievement on the job as a result of some prior continuing education experience. Otherwise, credits are no more than certificates of attendance and do nothing to promote implementation of improvements. Credit should be available for formal as well as informal continuing education sessions. Examples of both formal and informal continued learning experiences which could qualify for continuing education credit are outlined in Table I.

Collaborative effort should be the hallmark of continuing education programs. Cooperation among professional societies, private and government educational institutions, state and federal health agencies, and interstate cosponsorship can significantly enhance the quality, accessibility and cost effectiveness of continuing education programs. The ASMT prepackaged education program offers portable training that can be sponsored by any group or individual. With cost of production burgeoning, it is imperative that we avoid any duplication of effort in developing laboratory continuing education programs.

CONTINUING EDUCATION AND CONTINUING COMPETENCE

Through the development of continuing education programs, each clinical laboratory scientist can assess current levels of knowledge and performance, identify areas in which increased competence is necessary or desirable, and
create a means of gaining the identified competence by carefully chosen formal and informal continuing education activities. That sort of educational endeavor could provide a valuable source of expertise to the health care system, improve patient care, and assist in the development of job satisfaction and expansion of the profession. All the benefits of continuing education are not tangible. It is possible that through continuing education, the quality of the work which is produced is improved and there is a professional attitude in the work area that impacts on the atmosphere of the lab.

All continuing education programs sponsored or approved by ASMT should follow a systematic approach to instructional design including (Coldewey, 1978):

a. Needs assessment – based on participant's perceived needs and needs demonstrated by some other objective means, i.e., proficiency test scores, performance evaluations, accreditation inspections, etc. Participants should be recruited in this order:

(1) First priority: Those who have a need to acquire a new skill or more skill and knowledge to perform a task correctly.

(2) Second priority: Those who need to validate (practice and receive feedback) their skills and knowledge in performing a task.

(3) Third priority: Those who have a desire to update or expand their knowledge related to a task they do not perform now, but may perform some time in the future.

b. Identification and description of financial and manpower resources.

c. Behavioral objectives correlated with needs.

d. Course content and instructional strategy based on objectives and designed to maximize transfer of knowledge of skills.
e. Evaluation of student learning, student satisfaction and wherever possible, evaluation of long-term course effects and provision for evaluating favorable and unfavorable unintended outcomes.

It would greatly benefit potential participants and the providers of continuing education if participants were given opportunities to increase their self-evaluation skills so that they could more accurately and objectively evaluate their own needs and their own progress. Checklists and questionnaires could be included in course applications that would call for critical appraisal of the applicants' need for the course. Similar instruments could be mailed out at some time after the participants have returned to work, calling for a critical appraisal of exactly how newly learned skills were applied in their place of employment. (Olsen and Fruino, 1979)

FUTURE TRENDS

The upsurge of mandatory continuing education during the 1970's is almost certain to continue. Accompanying this continued activity for professionals will be similar activities by professional associations that lead to some form of certification or recertification for specific occupational groups. Numerous certification programs already exist, with many more on the drawing boards. Credentialing, whether through licensing, relicensing or certification is increasingly becoming a way of life. (Phillips, 1978)

CONCLUSIONS

The issues surrounding continuing education in clinical laboratory science are continuing to be increasingly complex. The effort by and for the American public to insure quality as well as growth within the area of clinical laboratory science has resulted in a confusion of issues. In the past ten years, ASMT has begun to provide more emphasis on competence assurance and continuing education. The bridge between the two remains to be defined. Many believe that continuing education is a necessity. In the words of Cyril Houle, "While continuing education will not cure all the problems of the profession, without it no cure is possible."
Examples of Continued Learning Experiences

1. Formalized Learning Experiences (Sponsored by ASMT at the local, state, regional, and national level, allied health organizations, institutions of higher learning and others)

A. Non-credit
   1. Workshop
   2. Seminar
   3. Scientific Session
   4. Conference/Institute
   5. Lecture
   6. Exhibit

B. Credit
   1. Academic-course
   2. By examination

2. Non-Formalized Experiences

A. Article, book, chapter publication
B. Article, book review
C. Exhibit

3. Self-Directed Learning

A. Self-Instruction Lesson
   1. Auto-tutorial
   2. Computer-assisted instruction
   3. Videotape
   4. Slide/cassette
   5. Slide/book
   6. Audio cassette

B. Journal Club or Study Group
   1. Article reading
   2. Book reading

4. Participation in Professional Organization - ASMT

A. Branch/District Organization
   1. Committee member
   2. Committee chair
   3. Officer

B. State Organization
   1. Committee member
   2. Committee chair
   3. Delegate
   4. Board member
   5. Officer

C. Regional Organization
   1. Committee member
   2. Committee chair
   3. Board member
   4. Officer

D. National Organization
   1. Committee member
   2. Committee chair
   3. Delegate
   4. Board member
   5. Officer

5. Continuing Education Program Contributor

A. Guest presenter
B. Panel presenter
C. Group discussion leader

6. Formalized Tours

A. Allied health organizations at the state, national or international level
B. Allied health institutions at the state, national or international level
C. Clinical laboratory science organizations at the state, national or international level
D. Clinical laboratory science institutions at the state, national or international level
REFERENCES:


Should Continuing Education be Mandatory? Hospital Progress, 7-10, January 1980.


Coldeway, N.A. Systematic Program Development. Unpublished Manuscript, 1978. (Available from Inter West Regional Medical Education Center, Veterans Administration Hospital, Salt Lake City, Utah)


Watts, M.S. Continuing Medical Education and Continuing Professional Competence (editorial), Western Journal of Medicine, 1977, 126, 220-221.