A review of four basic medical education accreditation systems

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ABSTRACT

In today's world, quality improvement of basic medical education is a must for training physicians who are able to meet the growing health needs of our society. One way for quality assurance in higher education including medical education is to develop a system of accreditation which has been in medical education authorities' constant focus recently. This article is a review of national accreditation system of LCME, AMC, AMFEM and international accreditation system of WFME. In these systems an autonomous body conducts accreditation. The questionnaires, developed based on established standards, are sent to the institute requesting accreditation. The institute completes its database to fill the questionnaire and reports the results of self study and data analysis to the accreditation body. A team of experts from the accreditation body visits the institute educational facilities and clinical training centers and reports their assessment results to accreditation body. The accreditation body makes final decision on accreditation.

Keywords *ACCREDITATION, WFME,AMC, AMFEM, LCME*

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Introduction

Accreditation is a method for quality assurance to assess whether an institution or a program has the minimum educational requirements or essentials (1). In higher education, quality is determined by assessment of research plans, management programs, professional improvement and knowledge development against a set of pre-defined standards. In other words to assess quality in higher education the output as well as the input and the process should be taken into account (2). Since the graduates of medical school play a vital role in provision of the people's health, the quality assurance of medical education to ensure minimum standards or "threshold" standards is of critical importance. Flexener, in his popular article in 1910, introduced the idea of a standard–based assessment for medical education which forms the corner stone of present medical education accreditation systems. Based on flexner's idea, the first modern accreditation system established in US continues to be among the most effective systems of its kind throughout the world (3).

Change and innovations in medical education have been in constant focus of health care authorities and professionals in the last decades (4). To achieve the required changes, many countries used an accreditation system. The advocates argue that accreditation systems aside from assuring the minimum quality standards have the potential to fuel a continual quality improvement if there is an appropriate set of standards.

Given the rapid quantitative growth in medical education, and growing concerns about inadequacies in basic medical education and lack of required competencies in medical graduates which have been acknowledged by our health care authorities, a rational step is to build a system of quality assurance into medical education. To put

this solution into practice, the third 5-year development plan emphasizes on implementing an accreditation system. To develop an accreditation system fulfilling our national requirements, a review and comparison of the existing accreditation systems in order to find their common aspects as well as their differences will be invaluable.

Here, we briefly review the three national accreditation systems of American Liason Committee on Medical Education (LCME), Australian Medical Council (AMC), Mexican Association Mexicana de Facultadesy Escuelas de Medicina (AMFEM), and an international accreditation system of the World Federation for Medical Education (WFME). Among various existing accreditation systems, LCME, as mentioned before, is the eldest system which continues to be one of the best, AMC is an old system which has under taken new changes to transform into an efficient modern system, AMFEM is a new comer and WFME which is completing the last phases of standard validation process, is the only system which aims to perform accreditation at an international level.

We hope such attempts pave the way to establish an efficient quality assurance system which ensure the quality and accountability of our medical education.

LCME accreditation system

In United States and Canada, accreditation is voluntary and is conducted by non–governmental bodies at the request of institutions or programs desiring accreditation (5). The LMCE has been the exclusive body accrediting USA basic medical education programs for 50 years. The scope of responsibility of the LCME is to accredit programs of medical education leading to the MD degree in the United States and territories, and in cooperation with the Committee on Accreditation of Canadian Medical Schools (CACMS), in Canada. The LCME is recognized as the accrediting body for these programs by the medical schools and their parent universities, by the United States Secretary of Education, by United States Congress in various health–related laws, and by territorial licensure boards. The U.S. Secretary of Education recognizes the LCME as the responsible national authority for accreditation of educational programs leading to the MD degree (6). Historically licensing bodies of the US and Canada have accepted the MD degree from a program accredited by the LCME as a pre-requisite for licensure. The list of accredited programs published annually by LCME provides information that may be used when individuals select a personal physician (5). To be accredited, the programs should meet the United States national standards set by LCME. Sometimes the standards are stated in a fashion which qualification or precise definition is not possible, because the nature of evaluation is qualitative in character and can be accomplished only by the exercise of professional judgment by qualified persons.

In the document of LCME's standards for accreditation of medical education programs published in 1997, words, "must" and "should" have been chosen with care. Use of the word "must" indicates that LCME considers meeting the standard to be absolutely necessary if the program is to be accredited. Use of the word "should" indicates that the LCME considers an attribute to be highly desirable and makes a judgment as to whether or not its absence may compromise substantial compliance with all of requirements for accreditation. However, it is expected with ongoing quality improvement of medical education those standards now referred to by the word "should" promote to be referred to by the word "must" in future (5).

`The LCME sets forth a total of 211 standards of which 92 are "must" , 85 are "should" and 34 are "may", These standards are classified in six sections:

1) Objectives
2) Governance
3) Administration
4) Educational programs leading to MD degree
5) Medical students
6) Resources for the educational program

The LCME develops its standards for accreditation through a process of study and debate, including public hearings. To ensure rich input, participants include the public, students, faculties, practicing physicians and administrators of medical school hospitals, and universities. The LCME's Task Force on Accreditation Policy and Validation and Reliability of Criteria is charged with ongoing evaluation of standards and initiation of new proposals. Changes in standards must be approved by the executive council of the association of American medical colleges and the Councils on Medical Education of the American Medical Association.(5)

In the accreditation process, institutional data are analyzed in relation to accreditation standards. The general steps in the process are:

- completion of the LCME medical education database by medical school administrators, faculty members, and students;

- analysis of the database and other information sources by institutional self-study task force and committees , and development of the self-study reports;
- visitation by an LCME survey team and preparation of the survey team report; and
- action on accreditation by the LCME.

The survey team members are appointed for a period of one year before on-site visit. The members are elected from about 200 practicing physicians, basic and clinical medical educators, education researchers and administrators. The survey team visits the institute and reviews the medical school database and self-study analysis to clarify any ambiguities which may exist.

A person who is familiar with medical education process should be appointed as coordinator for self-study. The coordinator has the responsibility of communicating with the LCME Secretariat to obtain answers to question. The final report is considered by the LCME at one of its regular meetings (four times each year) usually within three or four months of the survey team visit, and a decision about accreditation is made. Full accreditation is for a standard term of seven years. During the seven-year period, the LCME may require that the dean submit one or more written progress reports on the areas of concern noted by the survey team , or schedule a limited site visit or direct its Secretariat to conduct a visit , or order a full survey. If major problems exist, the LCME may decide to place the program on probation or withdraw accreditation (6).

The types of accreditation awarded by the LCME are full or provisional, established programs are eligible for full accreditation for a seven-year term. Developing programs are eligible for provisional accreditation, usually for one year subject to renewal. In the year that the charter class of a provisionally accredited program is scheduled to graduate, the developing program becomes eligible for full accreditation. When the LCME has placed a program on probation or denied or withdrawn accreditation, the program must notify all students enrolled, those newly accepted for enrollment and those seeking enrollment, of the resulting change in accreditation status(6)

In order to receive federal grant for medical education and appropriation by federal governments, LCME accreditation is required. Graduates from medical school accredited by LCME are eligible to take USMLE exam and to enroll in residency program approved by Accreditation Council for Graduate Medical Education (ACGME). In most US states to obtain medical licensure, graduation from LCME accredited medical school and passing licensing exam is required.

AMC accreditation system

In Australia and New Zealand, accreditation of medical schools based on a process of regular review by an independent external agency has been chosen as the preferred means of providing quality assurance of primary phase of medical education because it is free of the disadvantages that national licensing examination (NLE) has. The NLE disadvantages include a tendency to include homogeneity of curricula designed to meet NLE requirements and a focus by both faculty and students on need to pass a knowledge-based examination with less emphasis on clinical skills and development of appropriate professional attitudes (7).

The Australian Medical Council (AMC) was established by the Australian Health Ministers in 1984 as a national standards body for primary medical training. The AMC is a registered independent agency which reports annually to health ministers and Australian State but is not a governmental organization and works autonomously. The AMC is not exclusively state-financed. The Council determines the policy. The members of AMC included nominees of state and territory medical boards, two representatives of the Australia Health Ministers (the common wealth And the States), representatives of Australian Medical Association and specialist medical colleges.

The AMC established an Accreditation Committee in 1985. Between 1988 and 1992 the AMC used the Guidelines of the General Medical Council of United Kingdom, but thereafter assessments were conducted using AMC accreditation standards. By the end of 1995, all Australian medical schools had been accredited and the AMC had accredited both New Zealand medical schools, and the accreditation reports had been endorsed by Medical council of New Zealand (3).

All the accredited medical schools were associated with state-run parent universities. As a general goal, the accreditation process respects university autonomy by assessing medical schools against their goals and objectives, providing these diversity in medical education programs provided that they produce broadly educated graduates are concordant with the accreditation standards of the AMC, The AMC encourages

competent to practice safely under supervision as interns and capable of further training in any branch of medicine.

The stages of an assessment of an established medical course are:

- completing the questionnaire and initial documentation by the medical school;
- appointing the assessment team by the AMC and arrangements for assessment visits;
- conducting the assessment visit;
- providing a preliminary statement of the assessment team's views to the dean and senior officers of the school and if deemed necessary correcting any errors of fact that may appear in statement;
- final formal report prepared by the assessment team is submitted to the medical accreditation committee;
- preparing a recommendation draft by the committee and submitting it with the report to the medical school;
- the university may ask that a review panel be constituted;
- conducting a thorough revision regarding the issues that the university raised and submission of the review panel's report to the AMC and providing a copy to the university; and
- making final decision on accreditation of the medical school by the AMC and Medical Council of New Zealand.

Options for decisions on accreditation are as follows:

1) Accreditation for ten years subject to the satisfactory periodic reports (full).
2) Accreditation for ten years subject to certain conditions being addressed within a specified period and to satisfactory periodic reports (provisional).
3) Accreditation for shorter periods of time.
4) Accreditation refusal.

The final report on accreditation will be published as a public document. The medical school granted a full accreditation must submit written reports in the second, fifth and seventh year of accreditation to the AMC, the report in the fifth year has to be comprehensive assuring the meeting of educational standards, required resources by educational standards, and required resources by hard evidence. The medical school granted a provisional temporary accreditation might have to submit additional reports.

The AME's Guidelines for the assessment and accreditation of medical schools includes mission and objectives, the medical curriculum assessment of students, governance and administration, educational resources, academic staff and clinical teachers, the nexus between teaching and research, continuous renewal.

The guidelines set out the general principles the AMC regards as requirements for successful basic medical education (8).

In July 2000, the AMC held a special meeting to consider its revolving role in the accreditation of medical education and training. The meeting attended by representative of health departments and other corresponding bodies, as one of its aims examined other local and international models of accreditation of medical education. As a result of this meeting, the accreditation process, the Accreditation Committee and the AMC's Guidelines for accreditation underwent a thorough revision. The new guidelines draft has been revised to bring the AMC Guidelines into alignment with the WFME Guidelines. The AMC guidelines included an area of nexus between research and teaching in addition to nine areas which is also included in WFME Guidelines. The AMC specifies a single level of standards (in contrast to dual level of standards adopted by WFME). The standards are specifies by codes (8).

AMFEM accreditation system

The Mexican Association of Medical Faculties and Schools is a civil association of public and private institutes established in 1975 by a number of medical schools' and faculties' chairmen. The association aims at medical education quality improvement. To reach this ends the association established an accreditation system. The system for accreditation consists of two phase:

- Accreditation of medical schools by national accreditation system
- Providing a number of recommendations for continuous improvement in medical education by academic development program

AMFEM planning committee first, established a set of basic definitions for accreditations through consensus of medical education experts. Then, quality indicators and areas to be evaluated were clarified. Next, the standards were specified for each quality indicator in for different level A,B,C,C (A, necessary requirements; B, requirements which become necessary in medium term (four years); C, requirements to achieve excellence; D, recommendations to become ideal).

In October 1993, medical school chairmen assembly reaches a consensus on the standards

and approved the seven-step accreditation process. These steps are as follows:

1) Sending the accreditation questionnaires to the medical school.
2) Self-study by the medical school and returning the completed questionnaire to the AMFEM.
3) Data analysis and visitation of the medical school by an evaluator team from AMFEM.
4) Providing the teams' evaluation report and recommendation for quality improvement.
5) Providing an opportunity for medical school to raise an objection to the team report.
6) Final decision on accreditation.

Accreditation is granted for a five-year period. AMFEM accreditation is voluntary and is conducted at medical school's request. Being accredited by AMFEM has not been recognized as a privilege by the government or in the regulations. Members of accreditation committee must be chairman, chancellor or dean of a medical school and are expected to have completed a certain course on educational program assessment. The members are committed to serve at least for two years. The members of evaluation team are full time or part time medical faculty members with 7 to 10 years experience in academic instruction or in higher education managerial position.

The basic medical education standards are specified in 88 topics in ten areas. The areas are:

1) General principles and educational objectives
2) Governance and administration
3) The medical curriculum and academic structure
4) Assessment of educational process
5) Students
6) Academic staff and instructors
7) Institutional communications
8) Resources
9) Facilities for clinical training
10) Management

WFME International Guidelines

In 1998, the World Federation for Medical Education decided to extend its International Collaborative Program for the Reorientation of Medical Education, aiming at the implementation of its educational policy at the institutional level. As a first step towards this goal, WFME develops international standards for basic medical education. In 1999, 36 standards were specified in nine areas.

Each standard is defined in two levels of attainment:

- *Basic standards* This means that the standard must be met by every medical school and fulfillment demonstrated during evaluation of the school. Basic standards are expressed by a "must"
- *Standard for quality development* This means that the standard is in accordance with international consensus about best practice for medical schools and basic medical educations. Medical schools should be able to demonstrate fulfillment of some or all of these or that initiatives to do so have or will be taken. Standards for quality development are expressed by a "should" (4).

The defined areas are:

1) Mission and objectives
2) Educational program
3) Assessment of students
4) Students
5) Academic staff /Faculty
6) Educational resource
7) Program Evaluation
8) Governance and Administration
9) Continuous Renewal

The accreditation process generally includes:

1) Collection the required data through filling inquiries
2) Self-assessment led by the institute.
3) External peer review committee visits the institute
4) Self assessment committee prepares the final report
5) International accreditation board final decision on accreditation

An internationally accredited medical school is "a medical school with an, accredited basic medical education program". It shows that an international accreditation committee has evaluated the program and assured that it fulfills the least needed requirements. In a such market-dominant world, an external accreditation may attract more resources and facilitate more student registration for medical school, thus, medical schools accredited by WFME are supposed to be listed in a world directory. WFME's international accreditation system is going through its third phase which is a pilot study in six different region throughout the world. In this phase guidelines for institutional self-assessment are being developed and members of regional and national committees for evaluating basic medical education program are appointed (4).

Discussion

An overview of these four accreditation systems shows that the topics covered by each system are the same as the others though the classification of standards on different areas may differ. However essential factors and elements of a basic medical education are included in each system. The standards have one to four level of attainment and specified under 36 to 211 codes.

The AMFEM and the AMC mainly focus on educational outcomes and community involvement because their medical graduates are entitled to practice in community after completing an internship period. WFME as an international accreditation body has paid proper attention to involvement of community and appreciate contribution of all those involved in medical education.

All four systems accredit medical education program not medical education institute, so an accredited medical school means that the medical school has an accredited medical education program.

Independence and autonomy of accrediting body is respected in all four systems. Even the AMC which has been established by Australian medical council and still receives part of its budget as funds provided by Federal government, and the representatives of States and Federal government are among its members, is an autonomous body accrediting medical school according to its own policy.

In countries which have a long standing history of accreditation, laws and regulations has been well in place for quality assurance. For example, in United States, only LCME accredited program are entitled to receive federal grants, federal appropriations and graduates of such a program are eligible to have a practice license. In Australia, accreditation is required for medical school and only graduates of accredited program are eligible to have practice license. In more recent accreditation systems such as AMFEM and WFME international accreditation system accreditation is considered as an advantage to attract more students. In other words, in this setting, accreditation is considered an advantage to win more customers (students) in an open market (of medical education). National accreditation is granted for 5 to 10 years and all medical schools are required to deliver periodic reports which contribute to the continuous improvement of medical education. As WFME's standards and methods of accreditation are not finalized, the interval between periodic reports and the duration of a full accreditation is not determined. There are different levels of accreditation. For example, AMFEM only grants full accreditation while in United States accreditation is full or provisional and in Australia accreditation can be full, provisional or temporary.

All accrediting bodies announce accreditation status of medical schools. In United States and in Australia the complete accreditation report is published as a public document.

The aforementioned accreditation systems have some common steps:

- Beginning of accreditation process at institute's voluntary request.
- Completing questionnaire and standard inquiries by the institute.
- Sending the completed questionnaire and required data to accreditation body
- Visitation of the site (medical school) by external evaluator team.
- Providing the team's visit report to accreditation body and to the institute and to the institute.
- Rectifying any error in facts, if any occurred, by the institute.
- Final decision on the institute accreditation by accreditation body and informing the institute of the decision.

It is worth noting that data collection is guided by accrediting body by providing proper questionnaires on different areas for institute to complete and collect the required data. Generally, one of the faculty or administrative member with enough experience in medical education program evaluation coordinates the processes in this stage.

Aside from AMC, the other three accrediting systems require a self-study by the institute which has to provide a full evaluation report of the institute to accrediting body. To prepare the report, the responsible committee analyses the collected data to outline a clear picture of its strength as well as its weaknesses. On the basis of such an analysis the institute can design the appropriate solution to the existing problem and provide a plan for its medical education quality improvement. The AMC provide the opportunity for such an analysis through its preliminary questionnaire which include a part on data analysis and its result.

Since some of the standards cannot be quantified or precisely defined all systems (mentioned here) rely on professional judgment of experts who have enough experience in medical

education or are quite experienced as external evaluators. In nearly all accreditation systems, main part of accreditation process is based on professional judgment of the experts who conduct the site visitation.

It is noteworthy that most countries in all level of development (Mexico as a developing country and Australia as a developed county) attempt to bring their national standards into alignment with WFME guidelines in order to attain or maintain their competitiveness at an international level through continuous quality improvement.

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