

WFME GLOBAL STANDARDS FOR QUALITY IMPROVEMENT IN MEDICAL EDUCATION EUROPEAN SPECIFICATIONS



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MEDINE
THE THEMATIC NETWORK ON MEDICAL EDUCATION IN EUROPE

WFME GLOBAL STANDARDS FOR QUALITY
IMPROVEMENT IN MEDICAL EDUCATION
EUROPEAN SPECIFICATIONS

FOR BASIC AND POSTGRADUATE MEDICAL EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT

DEVELOPED BY A
WFME/AMSE INTERNATIONAL TASK FORCE

**MEDINE
THE THEMATIC NETWORK ON
MEDICAL EDUCATION IN EUROPE**

Medical
EDucation
IN
Europe

Title: **WFME Global Standards for
Quality Improvement in
Medical Education
European Specifications**
For Basic and Postgraduate
Medical Education and
Continuing Professional
Development



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PREFACE

The proposal for *European Specifications in Medical Education* presented in this document is an adaptation of global standards in medical education to the European Region. The proposal covers all three phases of medical education: basic medical education; postgraduate medical education; and continuing professional development. It was developed by an international Task Force set up by the Thematic Network on Medical Education in Europe (MEDINE), chaired jointly by the World Federation for Medical Education (WFME) and the Association of Medical Schools in Europe (AMSE) and sponsored by the Commission of the European Union.

The World Health Organization (WHO) Regional Office for Europe, as part of its commitment to ensure quality of health care in Europe, and in the framework of the WHO-WFME Strategic Partnership to Improve Medical Education, has facilitated publication and dissemination of the booklet.

In publishing these specifications, MEDINE intends to provide a tool for reform processes, and criteria for the recognition and accreditation of medical education institutions and programmes, for the benefit of the constituency of medical education, health services and health systems throughout the region.

INTRODUCTION

Over the past decade, a number of quality assurance initiatives have been taken on internationally in medical education. They include the setting of standards and the establishment of systems for recognition and accreditation of educational institutions and programmes. The focus on the need for international standards in medical education has been driven by the expansion of globalization, as manifested by exchange of medical students, migration of medical doctors and cross-border education. However, standards are also important in addressing national problems and challenges that result from changes in the health care delivery service, from institutional conservatism and inadequate management and leadership, and from the rapid growth in the number of new medical schools. At the same time, common trends in curricular developments and the management of medical education have facilitated attempts to define international standards. The ultimate goal is to improve health care across Europe.

It was therefore natural that MEDINE, with funding from the Commission of the European Union, should decide to include in its objectives activities that address quality assurance and standard setting in medical education in the European Region.

This document presents the considerations of the MEDINE Task Force on Quality Assurance Standards and the results of its work. The vision of the Task Force is that the recommendations regarding standard setting outlined in this document could be used by the European Commission, national education and health authorities, institutions and organisations with responsibility for medical education, in their endeavours to achieve quality assurance and improvement in medical education throughout its continuum in the European Region.

THEMATIC NETWORK MEDINE AND THE QUALITY ASSURANCE TASK FORCE

The Thematic Network MEDINE on medical education in Europe, which comprises more than one hundred institutions, addresses educational, institutional and quality issues in European medical education. It works within the framework of European initiatives like the Bologna Declaration and Process, including the European Credit Transfer System (ECTS), the Diploma Supplement initiative and the Tuning project. It has to take account of previous work in medical education done by, for example, the European Commission, the Association for Medical Education in Europe (AMEE), the Association of Medical Schools in Europe (AMSE) and the World Federation for Medical Education (WFME). The target groups for this work are students, medical educators, health care providers, ministries of health and education, the European Commission, professional bodies, patients and the public in general.

The Task Force on Quality Assurance Standards was led jointly by the World Federation for Medical Education (WFME) and the Association of Medical Schools in Europe (AMSE).

The objectives of the Task Force were:

- To work to enhance overall standards of medical education in Europe through sharing of ideas, dissemination of best practice, and quality assurance, in conjunction with other European agencies such as ENQA and the regional ERA and making use of the work already carried out by the WFME.
- To analyse how to adapt the WFME standards to the European context of medical education and to the Bologna process in order to establish minimum requirements for accreditation at Medical Schools in Europe.
- To produce a set of quality assurance standards for medical education in Europe, building on and adapting existing work such as the WFME Global Standards framework.

The list of Task Force members is presented inside the cover.

PREMISES FOR EUROPEAN SPECIFICATIONS

In trying to define specifications for the WFME Global Standards in medical education in a European context, a number of questions had to be discussed. In the following, only central issues related to standard setting in the European Region will be covered.

THE WFME GLOBAL STANDARDS PROGRAMME

The WFME programme on definition of international standards in medical education was launched in 1998. The purpose was to provide a mechanism for quality improvement in medical education, in a global context, to be applied by institutions, organisations and national authorities responsible for medical education. Standards were developed by three international Task Forces with broad representation of experts in medical education from all six World Health Organization (WHO)/WFME Regions. Following initial publication of a draft of Standards in Basic Medical Education and presentation at various international conferences, the final Trilogy of WFME Global Standards was published in 2003 (a1, a2, a3).

The Trilogy was the essential background material for the 2003 World Conference in Medical Education: Global Standards in Medical Education for Better Health Care (a4), which endorsed the Standards Programme (a5, a6). The Standards have been validated in a number of pilot studies and have been used by an increasing number of institutions and national agencies in all regions of the world. Since 2004, they have been promoted by the WHO/WFME Strategic Partnership to Improve Medical Education (a7).

General principles for and considerations regarding definition of international standards for medical education institutions and programmes, as discussed in the WFME Trilogy of Global Standards for Quality Improvement of Medical Education, can be found in Annexes 1-4. These include the concepts, rationale behind, the purposes and use of international standards as well as a description of fundamental conditions of the various phases of medical education

DELINEATION OF THE EUROPEAN REGION

The European Region is delineated differently by various international organisations and authorities. The European Union currently (January 2007) includes 27

countries. Closely related to the EU are the 4 EFTA countries. The Council of Europe comprises at the moment 46 countries. The group of countries (total number in 2006: 45) which signed the Bologna Declaration corresponds closely to the Council of Europe.

The European Region of the World Health Organization (WHO-EURO) goes beyond these boundaries of Europe by including also the Central Asian Republics and comprises at the moment 53 countries. The total number of countries in Europe (2007) is 55.

Considering the constant growth so far of the European Union and the relationship between EU and other parts of Europe as exemplified by the extension of the Bologna Process, the Task Force, in accordance with the Board of MEDINE, decided to work with standards for Europe in a broad sense. The conclusion was that at the moment, the European Region relevant for definition of European medical education standards would be comparable to the geographical area covered by the Council of Europe.

The Task Force is, however, aware of the increasing relationships between the European Region as defined above and other countries, e.g. the Central Asian Republics. These countries are increasingly trying to adapt their medical education systems to European principles. This situation means that further expansion of the European Region in terms of relevance for medical education and mobility of medical doctors might be expected in the near future.

DIVERSITY OF MEDICAL EDUCATION IN THE EUROPEAN REGION

Although there is some uniformity in the European Union with respect to tradition and structure of higher education, medical education has developed in several different ways.

The variations can be explained by differences in:

- teaching tradition
- cultural background
- socio-economic conditions
- health and disease spectrum
- organisation of the health care delivery system and
- distribution of health care service activities to various cadres of the health care workforce.

The Advisory Committee on Medical Training (ACMT) which was established in conjunction with the introduction of the first Medical Directives of the European Commission in 1975 worked to safeguard the mobility of doctors in the EU by producing a number of important reports (b20, c14, d11). ACMT observed a clear distinction in the principles underlying training between Northern and North-Western Europe on the one side and Southern Europe on the other side. Many recent discussions and initiatives have resulted in some harmonisation of the educational process, which made the relatively weakly formulated rules in the Directives acceptable, and allowed for free mobility of medical doctors. The Directives never addressed quality assurance.

With the expansion of the European Union eastwards, the diversity of medical education further increased, creating doubts among many stakeholders as to the feasibility and acceptability of the Directives being a basis for regulation of doctors' mobility within the EU. The Directives have only undergone changes in the formal presentation, and the educational requirements of the latest Directive (EU Directive 2005/36/EC) (a8) are almost identical to those in the first two Directives of 1975, which were consolidated in EU Directive 1993/16/EU.

The Task Force is aware of the differences between countries in the European Region, and to some extent within countries, with respect to organisation, process, content and outcome of medical education.

The spectrum of variability is probably greatest with respect to postgraduate medical education and continuing professional development; basic medical education in all countries has been influenced by principles which are common to most university traditions.

It has been central to the Task Force that the spectrum of medical educational systems and conditions in Europe are comparable to those in most regions of the world. This is a strong argument for operating with similar standards at two levels of attainment as used in the WFME Trilogy of Global Standards.

EUROPE IN A GLOBAL CONTEXT

The Task Force emphasises that standard setting for Europe should not create a situation of isolation from other parts of the world. Europe has a long tradition of exchange of students and health professionals worldwide. Standards in medical education should be used as an instrument to safeguard the quality of

the medical profession, and should not work as an unnecessary barrier preventing adequately trained medical doctors moving between Europe and other parts of the world.

Basically, medical education in Europe is facing the same problems and challenges as the rest of the world, and therefore standard setting must be made on a common basis.

NEEDS FOR STANDARDS IN MEDICAL EDUCATION IN EUROPE

In a global perspective, the needs for standards in medical education in the European Region might seem less of a problem than in many other regions. However, the creation of the European Higher Educational (EHEA) and Research Areas (ERA) within the framework of the Bologna Process (a9) is leading to increased mobility of students and professionals and so increases the need for common principles of quality assurance processes. When seen as a quality improvement tool, the need for standards is still the same and must address challenges due to:

- political, socio-economic and cultural realities
- institutional conservatism
- faculty staff inertia
- lack of clearly defined educational budgets
- insufficient supervision of programmes
- lack of incentives and
- insufficient leadership.

Another need for standards is exemplified in the case of new medical schools, which may currently neither have externally set standards to work to nor any guidance as to what is acceptable. The explosion in the number of medical schools, which has raised concern about the quality of medical education in other Regions, has so far not been a prominent phenomenon in Europe. However, Europe should be aware of the threats of uncontrolled establishment of new medical schools. Experiences from other Regions and cases within Europe show how private schools with a "for profit" purpose tend to neglect basic requirements such as the sufficiency of financial resources, the adequacy of the settings for clinical training, and the necessary research attainment facilities.

Closely related to this is the phenomenon of "off-shore" medical schools, being established as satellites of foreign medical schools for commercial reasons and potentially characterised by lower quality of the educational product compared to the mother institu-

tions. In some countries, this new trend of commercialisation of higher education, including medical education, has now led to deliberate overproduction of graduates for the purpose of export. This situation is a clear threat to the quality of medical education. Although not so far involved to a great extent in this type of cross-border education, Europe should protect itself against this tendency by setting relevant quality standards for medical education institutions and their programmes.

In formulating standards for medical education in Europe, special European needs should also be considered and defined. This would first of all include the basic requirements of medical education which are stated in the present Directive on recognition of professional qualifications (Directive 2005/36/EC of 7 September 2005) (a8) and the consequences of commitment to the Bologna Process, which raised some questions for the quality of medical education, now being discussed all over Europe (a10).

CONCEPT AND USE OF STANDARDS

Standards in medical education can be used as a quality improvement tool in institutional self-evaluations and peer review or as a basis for official recognition and accreditation. There is a clear overlap between these functions.

Apart from general educational standards as proposed by the European Association for Quality Assurance in Higher Education (ENQA) (a11), there is a need for subject specific standards in medicine. Studies of the use of the WFME Global Standards have shown that institutional self-evaluation based on these standards has fundamental positive influence on reform processes (a12).

Ideally, the standards to be used for reform purposes should be comprehensive like the WFME Global Standards, covering all aspects of medical education, including the organisation, structure, process, curricular content, learning environment and outcome. As regards outcomes, the Global Minimum Essential Requirements (GMER) standards as produced by the International Institute of Medical Education (a13) or equivalent standards describing expected outcome competences of graduates should be taken into consideration; this subject is dealt with in detail by the MEDINE Task Force on Tuning (a14).

Recommendations for proper accreditation systems

can be found in the WHO/WFME Guidelines for Accreditation in Basic Medical Education (a15), published in 2005 as a result of an international Task Force with broad representation from all Regions. Another outcome of that Task Force was the recommendation that accreditation should primarily be considered to be a national responsibility, the exemptions being countries with only one or few medical schools.

In this regard, it is the opinion of the MEDINE Task Force that at the present time there is no justification for the establishment of a common European accreditation system for medical schools. Small countries who do not have their own accreditation system could either be affiliated with a neighbouring country or, where appropriate, join Sub-regional accreditation systems. These questions should be discussed by a future Task Force.

There is potentially already more coordination in postgraduate medical education and continuing professional development. For example, the role of professional associations and organisations such as the European Union of Medical Specialists (UEMS) (a16, a17) and the Standing Committee of European Doctors (CPME) (a18) should be noted. European collaboration in quality assurance and development should be encouraged throughout the spectrum of medical education.

EUROPEAN STANDARDS OR REGIONAL SPECIFICATIONS FOR GLOBAL STANDARDS?

As a consequence of the considerations above, the Task Force came to the conclusion that presently there is no need for a separate set of European standards in medical education. The increasing collaboration between countries in an ongoing expanding European Region, a spectrum of diversity of medical education in the Region comparable to other regions of the world, the perspectives of the European Region in a broader global context and type of standards needed are factors that point to rejection of separate standards for Europe. It is the opinion of the Task Force that it will be sufficient to state European Specifications for the WFME Global Standards. Elements of such specifications are shown below.

The WFME Global Standards with the European Specifications could be used as a template for national standards. These could then become relevant in institutional reform processes and act as a basis for the establishment of accreditation systems in medical education.

As a logical consequence, it is the opinion of the Task Force that there is no rationale for an intermediary level between global and national standards in the European Region.

TYPES OF EUROPEAN SPECIFICATIONS

- Considerations of changing the division lines between basic standards or minimum requirements and standards for quality development. This takes into account the general social and economic conditions as well as recent improvements and endeavours in quality assurance and development of medical education in Europe which allow higher standards to be set.

This kind of modification of the WFME Global Standards could for example be motivated by influence of modern teaching and learning theory, definition of outcome and performance competences, enhancement of the integration of basic biomedical, behavioural and social sciences with clinical sciences in the medical programme or new settings for and other innovations in clinical training.

- Supplements necessitated by special European political conditions as consequences of, for example, EU Directives, or determined by commitments to the European Higher Education Area.
- Other additions to the global standards which would be relevant for the Region and perhaps also included in a future revision of the WFME Global Standards.

THE WFME GLOBAL STANDARDS WITH EUROPEAN SPECIFICATIONS

WFME Trilogy of Standard Documents

Each of the three documents of The Trilogy of WFME Global Standards (a1, a2, a3) is structured according to 9 Areas and 36-38 Sub-areas.

Areas are defined as broad components in the structure, process and outcome of medical education and cover all education and institution aspects (Table 1).

Sub-areas are defined as specific aspects of an area, corresponding to performance indicators.

Definitions of standards

Standards are specified for each sub-area. Within each sub-area there can be one or more standards.

Standards are formulated at two levels of attainment:

- **Basic standard,** meaning that the standard **must** be met from the outset.
- **Standard for quality development,** meaning that the standard is in accordance with international consensus about best practice. Fulfilment of – or initiatives to fulfil – some or all of such standards **should** be documented.

Annotations

Annotations are used to clarify, amplify or exemplify expressions in the standards.

European specifications

In formulating specifications to the WFME Global Standards, which are relevant for Europe, the Task Force has followed the principles mentioned above, i.e. the need to change the division line between the two levels of the WFME Standards and the need to add new elements to the standards and modifying some of the annotations.

STRUCTURE OF EUROPEAN SPECIFICATIONS FOR WFME GLOBAL STANDARDS:

- For every sub-area in each of the three sections representing standards for Basic Medical Education (BME), Postgraduate Medical Education (PME) and Continuing Professional Development (CPD), respectively, the wording of the WFME Basic and Quality Development Standards and the Annotations is initially outlined as in the WFME Trilogy.
- For relevant sub-areas, this is followed by a section with European specifications. For each specification, reference is given to the section to which the specification belongs:
BS: Basic standard;
QD: Quality development standard;
A: Annotation.

Table 1 WFME TRILOGY OF STANDARDS: AREAS

Basic Medical Education	Postgraduate Medical Education	Continuing Professional Development (CPD)
1. Mission and Objectives	Mission and Outcomes	Mission and Outcomes
2. Educational Programme	Training Process	Learning Methods
3. Assessment of Students	Assessment of Trainees	Planning and Documentation
4. Students	Trainees	The Individual Doctor
5. Academic Staff/Faculty	Staffing	CPD Providers
6. Educational Resources	Training Settings and Educational Resources	Educational Context and Resources
7. Programme Evaluation	Evaluation of Training Process	Evaluation of Methods and Competencies
8. Governance and Administration	Governance and Administration	Organisation
9. Continuous Renewal	Continuous Renewal	Continuous Renewal

STANDARDS IN BASIC MEDICAL EDUCATION WITH EUROPEAN SPECIFICATIONS

1. MISSION AND OBJECTIVES

1.1 STATEMENTS OF MISSION AND OBJECTIVES

Basic standard:

The medical school **must** define its mission and objectives and make them known to its constituency. The mission statements and objectives **must** describe the educational process resulting in a medical doctor competent at a basic level, with an appropriate foundation for further training in any branch of medicine and in keeping with the roles of doctors in the health care system.

Quality development:

The mission and objectives **should** encompass social responsibility, research attainment, community involvement, and address readiness for postgraduate medical training.

Annotations:

- *Statements of mission and objectives* would include general and specific issues relevant to institutional, national and regional policy.
- *Any branch of medicine* refers to all types of medical practice and medical research.
- *Postgraduate medical training* would include preregistration training, vocational training, specialist training and continuing medical education/professional development.

BS The quality development standard is considered a basic standard.

BS Statements of mission and objectives **must** take into consideration the European perspective in the Higher Education and Research Areas.

BS The medical school **must** be part of a university or be an institution of equivalent level.

1.2 PARTICIPATION IN FORMULATION OF MISSION AND OBJECTIVES

Basic standard:

The mission statement and objectives of a medical school **must** be defined by its principal stakeholders.

Quality development:

Formulation of mission statements and objectives **should** be based on input from a wider range of stakeholders.

Annotations:

- *Principal stakeholders* would include the dean, members of the faculty board/council, the university, governmental authorities and the profession.
- *A wider range of stakeholders* would include representatives of academic staff, students, the community, education and health care authorities, professional organisations and postgraduate educators.

BS The quality development standard is considered a basic standard.

A *Principal stakeholders* would include regulatory authorities.

1.3 ACADEMIC AUTONOMY

Basic standard:

There **must** be a policy for which the administration and faculty/academic staff of the medical school are responsible, within which they have freedom to design the curriculum and allocate the resources necessary for its implementation.

Quality development:

The contributions of all academic staff **should** address the actual curriculum and the educational resources **should** be distributed in relation to the educational needs.

1.4 EDUCATIONAL OUTCOME

Basic standard:

The medical school **must** define the competencies that students should exhibit on graduation in relation to their subsequent training and future roles in the health system.

Quality development:

The linkage of competencies to be acquired by graduation with that to be acquired in postgraduate train-

ing **should** be specified. Measures of, and information about, competencies of the graduates **should** be used as feedback to programme development.

Annotations:

- *Educational outcome* would be defined in terms of the competencies the students must acquire before graduation.
- *Competencies* within medicine and medical practice would include knowledge and understanding of the basic, clinical, behavioural and social sciences, including public health and population medicine, and medical ethics relevant to the practice of medicine; attitudes and clinical skills (with respect to establishment of diagnoses, practical procedures, communication skills, treatment and prevention of disease, health promotion, rehabilitation, clinical reasoning and problem solving); and the ability to undertake lifelong learning and professional development.

BS In defining competencies, the medical school **must** take into account current European developments in defining European core learning outcomes.

A Definition of *competencies* would consider the European Framework of Qualifications and the results of the *Tuning medical education* project of MEDINE and other related initiatives.

2. EDUCATIONAL PROGRAMME

2.1 CURRICULUM MODELS AND INSTRUCTIONAL METHODS

Basic standard:

The medical school **must** define the curriculum models and instructional methods employed.

Quality development:

The curriculum and instructional methods **should** ensure that students have responsibility for their learning process and **should** prepare them for lifelong, self-directed learning.

Annotations:

- *Curriculum models* would include models based on discipline, system, problem and community, etc.
- *Instructional methods* encompass teaching and learning methods.
- The *curriculum and instructional methods* should be based on sound learning principles and should foster the ability to participate in the scientific development of medicine as professionals and future colleagues.

BS The quality development standard is considered a basic standard.

BS In EU member states the curriculum **must** comply with the EU Directive 2005/36/EU of 7 September 2005 on the recognition of professional qualifications.

BS It **must** be clearly stated if a one or two cycle system (according to the Bologna Declaration) is used in structuring the curriculum.

QD The instructional methods **should** be based on modern adult learning theory.

2.2 SCIENTIFIC METHOD

Basic standard:

The medical school **must** teach the principles of scientific method and evidence-based medicine, including analytical and critical thinking, throughout the curriculum.

Quality development:

The curriculum **should** include elements for training students in scientific thinking and research methods.

Annotation:

- *Training in scientific thinking and research methods* may include the use of elective research projects to be conducted by medical students.

2.3 BASIC BIOMEDICAL SCIENCES

Basic standard:

The medical school **must** identify and incorporate in the curriculum the contributions of the basic biomedical sciences to create understanding of the scientific knowledge, concepts and methods fundamental to acquiring and applying clinical science.

Quality development:

The contributions in the curriculum of the biomedical sciences **should** be adapted to the scientific, technological and clinical developments as well as to the health needs of society.

Annotation:

- The *basic biomedical sciences* would - depending on local needs, interests and traditions - typically include anatomy, biochemistry, physiology, biophysics, molecular biology, cell biology, genetics, microbiology, immunology, pharmacology, pathology, etc.

BS The quality development standard is considered a basic standard.

QD Proper integration between basic medical sciences and clinical sciences and skills **should** be assured.

2.4 BEHAVIOURAL AND SOCIAL SCIENCES AND MEDICAL ETHICS

Basic standard:

The medical school **must** identify and incorporate in the curriculum the contributions of the behavioural sciences, social sciences, medical ethics and medical jurisprudence that enable effective communication, clinical decision making and ethical practices.

Quality development:

The contributions of the behavioural and social sciences and medical ethics **should** be adapted to scientific developments in medicine, to changing demo-

graphic and cultural contexts and to health needs of society.

Annotations:

- *Behavioural and social sciences* would - depending on local needs, interests and traditions - typically include medical psychology, medical sociology, biostatistics, epidemiology, hygiene and public health and community medicine etc.
- *The behavioural and social sciences and medical ethics* should provide the knowledge, concepts, methods, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

BS The quality development standard is considered a basic standard.

QD Behavioural and social sciences **should** be integrated with other knowledge and skills, and medical ethics with biomedical and clinical sciences.

2.5 CLINICAL SCIENCES AND SKILLS

Basic standard:

The medical school **must** ensure that students have patient contact and acquire sufficient clinical knowledge and skills to assume appropriate clinical responsibility upon graduation.

Quality development:

Every student **should** have early patient contact leading to participation in patient care. The different components of clinical skills training **should** be structured according to the stage of the study programme.

Annotations:

- *The clinical sciences* would - depending on local needs, interests and traditions - typically include internal medicine (with subspecialties), surgery (with subspecialties), anaesthesiology, dermatology & venereology, diagnostic radiology, emergency medicine, general practice/family medicine, geriatrics, gynecology & obstetrics, laboratory medicine, neurology, neurosurgery, oncology & radiotherapy, ophthalmology, orthopaedic surgery, oto-rhino-laryngology, paediatrics, pathological anatomy, physiotherapy & rehabilitation medicine and psychiatry, etc.
- *Clinical skills* include history taking, physical examination, procedures and investigations, emergency practices and communication and team leadership skills.
- *Appropriate clinical responsibility* would include health promotion, disease prevention and patient care.
- *Participation in patient care* would include relevant community experience and teamwork with other health professions.

2.6 CURRICULUM STRUCTURE, COMPOSITION AND DURATION

Basic standard:

The medical school **must** describe the content, extent and sequencing of courses and other curricular elements, including the balance between the core and optional content, and the role of health promotion, preventive medicine and rehabilitation in the curriculum, as well as the interface with unorthodox, traditional or alternative practices.

Quality development:

Basic sciences and clinical sciences **should** be integrated in the curriculum.

Annotations:

- *Core and optional content* refers to a curriculum model with a combination of compulsory elements and electives or special options. The ratio between the two components can vary.
- *Integration of disciplines* would include both horizontal (concurrent) and vertical (sequential) integration of curricular components.

QD Organisation of the curriculum **should** be based on estimated student workload as expressed in the European Credit Transfer System (ECTS).

QD At least one third of the study period **should** be spent in contact with patients in relevant clinical settings. The medical school **should** specify the amount of time spent in training in medicine, surgery, paediatrics, obstetrics and gynaecology, psychiatry and general practice/family medicine.

2.7 PROGRAMME MANAGEMENT

Basic standard:

A curriculum committee **must** be given the responsibility and authority for planning and implementing the curriculum to secure the objectives of the medical school.

Quality development:

The curriculum committee **should** be provided with resources for planning and implementing methods of teaching and learning, student assessment, course evaluation, and for innovations in the curriculum. There **should** be representation on the curriculum committee of staff, students and other stakeholders.

Annotations:

- *The authority* of the curriculum committee would include supremacy over specific departmental and subject interests, and the control of the curriculum within existing rules and regulations as defined by the governance structure of the institution and governmental authorities.
- *Other stakeholders* would include other participants in the educational process, representatives of other health professions or other faculties in the University.

BS The representation on the curriculum committee of staff and students is considered a basic standard.

2.8 LINKAGE WITH MEDICAL PRACTICE AND THE HEALTH CARE SYSTEM

Basic standard:

Operational linkage **must** be assured between the educational programme and the subsequent stage of training or practice that the student will enter after graduation.

Quality development:

The curriculum committee **should** seek input from the environment in which graduates will be expected to work and **should** undertake programme modification in response to feedback from the community and society.

Annotations:

- *Subsequent stages of training* would include pre-registration training, and specialist training.
- *Operational linkage* would imply clear definition and description of the elements and their interrelations in the various stages of training and practice, and should pay attention to the local, national, regional and global context.

BS The quality development standard is considered a basic standard.

3. ASSESSMENT OF STUDENTS

3.1 ASSESSMENT METHODS

Basic standard:

The medical school **must** define and state the methods used for assessment of its students, including the criteria for passing examinations.

Quality development:

The reliability and validity of assessment methods **should** be documented and evaluated and new assessment methods developed.

Annotations:

- The *definition of methods used for assessment* may include consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between written and oral examinations, the use of normative and criterion referenced judgements, and the use of special types of examinations, e.g. objective structured clinical examinations (OSCE).
- *Evaluation of assessment methods* may include an evaluation of how they promote learning.
- *New assessment methods* may include the use of external examiners.

BS European best practice implies that documentation of reliability and validity of assessment methodologies is considered a basic standard.

QD Assessments and methodologies used **should** be open to scrutiny by external authorities.

3.2 RELATION BETWEEN ASSESSMENT AND LEARNING

Basic standard:

Assessment principles, methods and practices **must** be clearly compatible with educational objectives and **must** promote learning.

Quality development:

The number and nature of examinations **should** be adjusted by integrating assessments of various curricular elements to encourage integrated learning. The need to learn excessive amounts of information **should** be reduced and curriculum overload prevented.

Annotation:

- *Adjustment of number and nature of examinations* would include consideration of avoiding negative effects on learning.

BS Assessment **must** test student achievement of learning objectives and competences.

QD Assessment practices **should** include all domains: knowledge, skills and attitudes.

4. STUDENTS

4.1 ADMISSION POLICY AND SELECTION

Basic standard:

The medical school **must** have an admission policy including a clear statement on the process of selection of students.

Quality development:

The admission policy **should** be reviewed periodically, based on relevant societal and professional data, to comply with the social responsibilities of the institution and the health needs of community and society. The relationship between selection, the educational programme and desired qualities of graduates **should** be stated.

Annotations:

- *The statement on process of selection of students* would include both rationale and methods of selection and may include description of a mechanism for appeal.
- *The review of admission policies* and the recruitment of students would include improvement of selection criteria, to reflect the capability of students to become doctors and to cover the variations in required competencies related to diversity of medicine.

4.2 STUDENT INTAKE

Basic standard:

The size of student intake **must** be defined and related to the capacity of the medical school at all stages of education and training.

Quality development:

The size and nature of student intake **should** be reviewed in consultation with relevant stakeholders and regulated periodically to meet the needs of community and society.

Annotations:

- *The needs of community and society* may include consideration of balanced intake according to gender, ethnicity and other social requirements, including the potential need of a special admission policy for underprivileged students.
- *Stakeholders* would include those responsible for planning and development of human resources in the national health sector.

4.3 STUDENT SUPPORT AND COUNSELLING

Basic standard:

A programme of student support, including counselling, **must** be offered by the medical school.

Quality development:

Counselling **should** be provided based on monitoring of student progress and **should** address social and personal needs of students.

Annotation:

- *Social and personal needs* would include academic support, career guidance, health problems and financial matters.

BS The quality development standard is considered a basic standard.

4.4 STUDENT REPRESENTATION

Basic standard:

The medical school **must** have a policy on student representation and appropriate participation in the design, management and evaluation of the curriculum, and in other matters relevant to students.

Quality development:

Student activities and student organisations **should** be encouraged and facilitated.

Annotation:

- *Student activities and organisations* would include student self-government and representation on educational committees and other relevant bodies as well as social activities.

BS The quality development standard is considered a basic standard.

5. ACADEMIC STAFF/FACULTY

5.1 RECRUITMENT POLICY

Basic standard:

The medical school **must** have a staff recruitment policy which outlines the type, responsibilities and balance of academic staff required to deliver the curriculum adequately, including the balance between medical and non-medical academic staff, and between full-time and part-time staff, the responsibilities of which **must** be explicitly specified and monitored.

Quality development:

A policy **should** be developed for staff selection criteria, including scientific, educational and clinical merit, relationship to the mission of the institution, economic considerations and issues of local significance.

Annotations:

- *Balance of academic staff/faculty* would include staff with joint responsibilities in the basic and clinical sciences, in the university and health care facilities, and teachers with dual appointments.
- *Issues of local significance* may include gender, ethnicity, religion, language and others of relevance to the school.
- *Merit* can be measured by formal qualifications, professional experience, research output, teaching experience, peer recognition, etc.

BS The staff policy **must** ensure that there are sufficient high level academic experts to deliver the curriculum and sufficient high quality researchers in relevant disciplines.

5.2 STAFF POLICY AND DEVELOPMENT

Basic standard:

The medical school **must** have a staff policy which addresses a balance of capacity for teaching, research and service functions, and ensures recognition of meritorious academic activities, with appropriate emphasis on both research attainment and teaching qualifications.

Quality development:

The staff policy **should** include teacher training and development and teacher appraisal. Teacher-student ratios relevant to the various curricular components

and teacher representation on relevant bodies **should** be taken into account.

Annotations:

- *Service functions* would include clinical duties in the health care system, administrative and leadership functions etc.
- *Recognition of meritorious academic activities* would be by rewards, promotion and/or remuneration.

BS The quality development standard is considered a basic standard.

QD Faculty development programmes **should** involve all teachers, not only new teachers.

6. EDUCATIONAL RESOURCES

6.1 PHYSICAL FACILITIES

Basic standard:

The medical school **must** have sufficient physical facilities for the staff and the student population to ensure that the curriculum can be delivered adequately.

Quality development:

The learning environment for the students **should** be improved by regular updating and extension of the facilities to match developments in educational practices.

Annotation:

- *Physical facilities* would include lecture halls, tutorial rooms, laboratories, libraries, information technology facilities, recreational facilities, etc.

BS The medical school **must** have appropriate rules to ensure the learning environment is safe for staff, students and patients.

A A *safe learning environment* would include protection from harmful substances, specimens and organisms, and provision of vaccinations, laboratory safety regulations, etc.

6.2 CLINICAL TRAINING RESOURCES

Basic standard:

The medical school **must** ensure adequate clinical experience and the necessary resources, including sufficient patients and clinical training facilities.

Quality development:

The facilities for clinical training **should** be developed to ensure clinical training which is adequate to the needs of the population in the geographically relevant area.

Annotations:

- *Clinical training facilities* would include hospitals (adequate mix of primary, secondary and tertiary), ambulatory services, clinics, primary health care settings, health care centres and other community health care settings as well as skills laboratories.
- *Facilities for clinical training* should be evaluated regularly for their appropriateness and quality regarding medical training programmes.

QD Clinical training **should** be organised using a mix of clinical settings and rotations throughout all main disciplines.

6.3 INFORMATION TECHNOLOGY

Basic standard:

The medical school **must** have a policy which addresses the evaluation and effective use of information and communication technology in the educational programme.

Quality development:

Teachers and students **should** be enabled to use information and communication technology for self-learning, accessing information, managing patients and working in health care systems.

Annotations:

- A policy regarding the use of computers, internal and external networks and other means of *information and communication technology* would include coordination with the library services of the institution.
- The use of *information and communication technology* may be part of education for evidence-based medicine and in preparing the students for continuing medical education and professional development.

BS The quality development standard is considered a basic standard.

6.4 RESEARCH

Basic standard:

The medical school **must** have a policy that fosters the relationship between research and education and **must** describe the research facilities and areas of research priorities at the institution.

Quality development:

The interaction between research and education activities **should** be reflected in the curriculum and influence current teaching and **should** encourage and prepare students to engagement in medical research and development.

BS The quality development standard is considered a basic standard.

6.5 EDUCATIONAL EXPERTISE

Basic standard:

The medical school **must** have a policy on the use of educational expertise in planning medical education and in development of teaching methods.

Quality development:

There **should** be access to educational experts and evidence demonstrated of the use of such expertise for staff development and for research in the discipline of medical education.

Annotations:

- *Educational expertise* would deal with problems, processes and practice of medical education and would include medical doctors with research experience in medical education, educational psychologists and sociologists, etc. It can be provided by an education unit at the institution or be acquired from another national or international institution.
- *Medical education* research investigates the effectiveness of teaching and learning methods, and the wider institutional context.

6.6 EDUCATIONAL EXCHANGES

Basic standard:

The medical school **must** have a policy for collaboration with other educational institutions and for the transfer of educational credits.

Quality development:

Regional and international exchange of academic staff and students **should** be facilitated by the provision of appropriate resources.

Annotations:

- Transfer of *educational credits* can be facilitated through active programme coordination between medical schools.
- *Other educational institutions* would include other medical schools or public health schools, other faculties, and institutions for education of other health and health-related professions.

QD Exchange of students **should** be facilitated by implementing the European Credit Transfer System (ECTS).

QD The requirements regarding courses **should** be interpreted flexibly for exchange of students.

QD Administrative staff **should** be included in exchange programmes.

7. PROGRAMME EVALUATION

7.1 MECHANISMS FOR PROGRAMME EVALUATION

Basic standard:

The medical school **must** establish a mechanism for programme evaluation that monitors the curriculum and student progress, and ensures that concerns are identified and addressed.

Quality development:

Programme evaluation **should** address the context of the educational process, the specific components of the curriculum and the general outcome.

Annotations:

- *Mechanisms for programme evaluation* would imply the use of valid and reliable methods and require that basic data about the medical curriculum are available. Involvement of experts in medical education would further broaden the base of evidence for quality of medical education at the institution.
- *Identified concerns* would include problems presented to the curriculum committee.
- *The context of the educational process* would include the organisation and resources as well as the learning environment and culture of the medical school.
- *Specific components of programme evaluation* would include course description and student performance.
- *General outcomes* would be measured e.g. by career choice and postgraduate performance.

BS The quality development standard is considered a basic standard.

QD National evaluation agencies and regulatory authorities **should** be involved in programme evaluation.

QD A programme **should** be evaluated by comprehensively considering process and outcome of education.

QD When used, national license examination **should** be taken into account.

QD Information about medical careers of graduates **should**, if possible, be used in evaluation of the study programme.

7.2 TEACHER AND STUDENT FEEDBACK

Basic standard:

Both teacher and student feedback **must** be systematically sought, analysed and responded to.

Quality development:

Teachers and students **should** be actively involved in planning programme evaluation and in using its results for programme development.

7.3 STUDENT PERFORMANCE

Basic standard:

Student performance **must** be analysed in relation to the curriculum and the mission and objectives of the medical school.

Quality development:

Student performance **should** be analysed in relation to student background, conditions and entrance qualifications, and **should** be used to provide feedback to the committees responsible for student selection, curriculum planning and student counselling.

Annotation:

- *Measures of student performance* would include information about average study duration, scores, pass and failure rates at examinations, success and dropout rates, student reports about conditions in their courses, as well as time spent by the students on areas of special interest.

7.4 INVOLVEMENT OF STAKEHOLDERS

Basic standard:

Programme evaluation **must** involve the governance and administration of the medical school, the academic staff and the students.

Quality development:

A wider range of stakeholders **should** have access to results of course and programme evaluation, and their views on the relevance and development of the curriculum **should** be considered.

Annotation:

- *A wider range of stakeholders* would include educational and health care authorities, representatives of the community, professional organisations and those responsible for post-graduate education.

BS External evaluation **must** be carried out regularly and may be linked to formal accreditation.

8. GOVERNANCE AND ADMINISTRATION

8.1 GOVERNANCE

Basic standard:

Governance structures and functions of the medical school **must** be defined, including their relationships within the University.

Quality development:

The governance structures **should** set out the committee structure, and reflect representation from academic staff, students and other stakeholders.

Annotations:

- *The committee structure* would include a curriculum committee with the authority to design and manage the medical curriculum.
- *Relationships within the University* and its governance structures should be specified, if the medical school is part of or affiliated to a University.
- *Other stakeholders* would include ministries of higher education and health, other representatives of the health care sector and the public.

BS The quality development standard is considered a basic standard.

QD Lines of accountability of committees **should** be clearly defined.

8.2 ACADEMIC LEADERSHIP

Basic standard:

The responsibilities of the academic leadership of the medical school for the medical educational programme **must** be clearly stated.

Quality development:

The academic leadership **should** be evaluated at defined intervals with respect to achievement of the mission and objectives of the school.

8.3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION

Basic standard:

The medical school **must** have a clear line of responsibility and authority for the curriculum and its resourcing, including a dedicated educational budget.

Quality development:

There **should** be sufficient autonomy to direct resources, including remuneration of teaching staff, in an appropriate manner in order to achieve the overall objectives of the school.

Annotation:

- *The educational budget* would depend on the budgetary practice in each institution and country.

BS The quality development standard is considered a basic standard.

QD The medical school **should** have a budgetary strategic plan, and the financial sources and all conditions attached to the financing **should** be stated transparently.

8.4 ADMINISTRATIVE STAFF AND MANAGEMENT

Basic standard:

The administrative staff of the medical school **must** be appropriate to support the implementation of the school's educational programme and other activities and to ensure good management and deployment of its resources.

Quality development:

The management **should** include a programme of quality assurance and the management should submit itself to regular review.

QD The management of the programme **should** always consider the need for quality improvement.

8.5 INTERACTION WITH HEALTH SECTOR

Basic standard:

The medical school **must** have a constructive interaction with the health and health-related sectors of society and government.

Quality development:

The collaboration with partners of the health sector **should** be formalised.

Annotations:

- *The health sector* would include the health care delivery system, whether public or private, medical research institutions, etc.
- *The health-related sector* would, depending on issues and local organisation, include institutions and regulating bodies with implications for health promotion and disease prevention (e.g. with environmental, nutritional and social responsibilities).

9. CONTINUOUS RENEWAL

Basic standard:

The medical school **must** as a dynamic institution initiate procedures for regular reviewing and updating of its structure and functions and **must** rectify documented deficiencies.

Quality development:

The process of renewal **should** be based on prospective studies and analyses and **should** lead to the revisions of the policies and practices of the medical school in accordance with past experience, present activities and future perspectives. In so doing, it should address the following issues:

- *Adaptation of the mission and objectives of the medical school to the scientific, socio-economic and cultural development of the society.*
- *Modification of the required competencies of the graduating students in accordance with documented needs of the environment graduates will enter. The modification shall include the clinical skills and public health training and involvement in patient care appropriate to responsibilities encountered upon graduation.*
- *Adaptation of the curricular model and instructional methods to ensure that these are appropriate and relevant.*
- *Adjustment of curricular elements and their relationships in keeping with developments in the biomedical sciences, the behavioural sciences, the social sciences, the clinical sciences, changes in the demographic profile and health/disease pattern of the population, and socio-economic and cultural conditions. The adjustment shall assure that new relevant knowledge, concepts and methods are included and outdated ones discarded.*
- *Development of assessment principles, and the methods and the number of examinations according to changes in educational objectives and learning goals and methods.*
- *Adaptation of student recruitment policy and selection methods to changing expectations and circumstances, human resource needs, changes in the premedical education system and the requirements of the educational programme.*
- *Adaptation of recruitment and staffing policy regarding the academic staff according to changing needs of the medical school.*

- *Updating of educational resources according to changing needs of the medical school, i.e. the student intake, size and profile of academic staff, the educational programme and contemporary educational principles.*
- *Refinement of the process of programme monitoring and evaluation.*
- *Development of the organisational structure and management principles in order to cope with changing circumstances and needs of the medical school and, over time, accommodating to the interests of the different groups of stakeholders.*

QD Adaptation of instructional methods **should** take into account new developments in educational theories, adult learning methodology, active learning principles, etc.

STANDARDS IN POSTGRADUATE MEDICAL EDUCATION WITH EUROPEAN SPECIFICATIONS

1. MISSION AND OUTCOMES

1.1 STATEMENTS OF MISSION AND OUTCOMES

Basic standard:

The competent authorities **must** define, in consultation with the professional organisations, the mission and outcome objectives for the various types of postgraduate medical training and make them known. The statements of mission and outcomes **must** describe the practice - based training process resulting in a medical doctor competent to undertake comprehensive up-to-date medical practice in the defined field of medicine in a professional manner, unsupervised and independently or within a team, in keeping with the needs of the health care system.

Quality development:

The mission and outcome objectives **should** encourage appropriate innovation in the training process and allow for development of broader competencies than minimally required and constantly strive to improve patient care that is appropriate, effective and compassionate in dealing with health problems and promotion of health. The training **should** encourage doctors to become scholars within their chosen field of medicine and **should** prepare them for lifelong, self-directed learning and readiness for continuing medical education and professional development.

Annotations:

- *Statements of mission and outcomes* would include general and specific issues relevant to national and regional policy.
- *Competent authorities* would include local and national bodies involved in regulation of postgraduate medical training, and could be a national governmental agency, a national board, a university, a competent professional organisation or a combination.
- *Types of postgraduate medical training* would include pre-registration training, systematic vocational training, specialist training and other formalised training for expertise in specified areas of medicine.
- *Scholar* refers to deeper and/or broader engagement in the development of the discipline, including responsibility for education, development, research, management, etc.
- *Chosen field of medicine* would include recognised specialties, including general practice, subspecialties and expert functions.

BS Development of broader competences as well as enhancement of the commitment to lifelong, self-directed learning and readiness for continuing medical education and professional development is considered a basic standard.

A Where reference is made to *national and regional* issues in this document it will also refer to European issues.

1.2 PARTICIPATION IN THE FORMULATION OF MISSION AND OUTCOMES

Basic standard:

The statement of mission and outcomes of postgraduate training **must** be defined by its principal stakeholders.

Quality development:

Formulation of mission and outcomes statements **should** be based on input from a wider range of stakeholders.

Annotations:

- *Principal stakeholders* would include trainees, programme directors, scientific societies, hospital administrations, governmental authorities and professional associations or organisations.
- *A wider range of stakeholders* would include representation of supervisors, trainers, teachers, other health professions, patients, the community, organisations and health care authorities.

A *Trainee*, wherever it is used in this document, is meant as a medical doctor in training.

1.3 PROFESSIONALISM AND AUTONOMY

Basic standard:

The training process **must**, based on approved basic medical education, further strengthen professionalism of the doctor.

Quality development:

The training **should** foster professional autonomy to enable the doctor to act in the best interests of the patient and the public.

Annotation:

- *Professionalism* describes the knowledge, skills, attitudes and behaviours expected by patients and society from individuals during the practice of their profession and includes concepts such as skills of lifelong learning and maintenance of competence, information literacy, ethical behaviour, integrity, honesty, altruism, service to others, adherence to professional codes, justice and respect for others.

- Knowledge of public health and health policy issues and awareness and responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations
- Ability to understand health care, and identify and carry out system-based improvement of care.

BS The quality development standard is considered a basic standard.

BS The quality development standard is considered a basic standard.

1.4 TRAINING OUTCOMES

Basic standard:

The relevant competent authorities **must**, in consultation with the professional organisations, define the competencies, which must be achieved by trainees as a result of the training programmes.

Quality development:

Both broad and specific competencies to be acquired by trainees **should** be specified and linked with the competencies acquired as a result of basic medical education. Measures of competencies achieved by trainees **should** be used as feedback for programme development.

Annotation:

- *Competencies* can be defined in broad professional terms or as specific knowledge, skills, attitudes and behaviours. Competencies relevant for postgraduate training (see references 9-12) would, at a level dependant on the chosen field in medicine, include the following areas:
 - Patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion
 - Medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and application of such knowledge in patient care
 - Interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public
 - Appraisal and utilisation of new scientific knowledge to continuously update and improve clinical practice
 - Function as supervisor, trainer and teacher in relation to colleagues, medical students and other health professions
 - Capability to be a scholar contributing to development and research in the chosen field of medicine
 - Professionalism
 - Interest and ability to act as an advocate for the patient

2. TRAINING PROCESS

2.1 LEARNING APPROACHES

Basic standard:

Postgraduate medical training **must** follow a systematic training programme, which describes generic and discipline-specific components of training. The training **must** be practice - based involving the personal participation of the trainee in the services and responsibilities of patient care activities in the training institutions. The training programme **must** encompass integrated practical and theoretical instruction.

Quality development:

Postgraduate medical training **should** interface with basic medical education and continuing medical education/professional development. The training **should** be directed and the trainee guided through supervision and regular appraisal and feedback. The training process **should** ensure an increasing degree of independent responsibility as skills, knowledge and experience grow. Every trainee **should** have access to educational counselling.

Annotations:

- *The training process* would, when appropriate, proceed via a common trunk from general to more specialised content.
- *Educational counselling* would include access to designated tutors or mentors.

BS The quality development standard is considered a basic standard.

2.2 SCIENTIFIC METHODS

Basic standard:

The trainee **must** achieve knowledge of the scientific basis and methods of the chosen field of medicine, and through exposure to a broad range of relevant clinical/practical experience in different settings in the chosen field of medicine become familiar with evidence-based medicine and critical clinical decision-making.

Quality development:

In the training process the trainee **should** have formal teaching about critical appraisal of literature, scientific data and evidence-based medicine, and be exposed to research.

Annotation:

- Training in *scientific basis and methods* may include the use of elective research projects to be conducted by trainees (cf. 6.5).

QD Exposure to research **should** especially include understanding of research methodology.

2.3 TRAINING CONTENT

Basic standard:

The training process **must** include the practical clinical work and relevant theory of the basic biomedical, clinical, behavioural and social sciences; clinical decision-making; communication skills, medical ethics, public health policy, medical jurisprudence and managerial disciplines required to demonstrate professional practice in the chosen field of medicine.

Quality development:

The training process **should** ensure development of knowledge, skills, attitudes and personal attributes in the roles as medical expert, health advocate, communicator, collaborator and team-worker, scholar, administrator and manager.

Annotations:

- *The basic biomedical sciences* would - depending on local needs, interests and traditions typically include anatomy, biochemistry, physiology, biophysics, molecular biology, cell biology, genetics, microbiology, immunology, pharmacology, pathology, etc.
- *Clinical sciences* would include the chosen clinical or laboratory disciplines and in addition other relevant clinical/laboratory disciplines.
- *Behavioural and social sciences* would, depending on local needs, interests and traditions, typically include medical psychology, medical sociology, biostatistics, epidemiology, hygiene and public health and community medicine, etc.
- *The behavioural and social sciences and medical ethics* should provide the knowledge, concepts, methods, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

BS The quality development standard is considered a basic standard.

2.4 TRAINING STRUCTURE, COMPOSITION AND DURATION

Basic standard:

The overall composition, structure and duration of training and professional development **must** be described with clear definition of goals and expected task-based outcomes and explanation of their relationship to basic medical education and health care delivery. Components which are compulsory and optional **must** be clearly stated.

Quality development:

Integration of practice and theory **should** be ensured in the training process.

Annotations:

- *Structure of training* refers to the overall sequence of attachment to the training settings and responsibility of the doctor and not the details of the training experiences.
- *Integration of practice and theory* would include didactic learning sessions and supervised patient care experiences.

BS The quality development standard is considered a basic standard.

BS In EU member states the curriculum **must** comply with the EU Directive 2005/36/EU of 7 September 2005 on the recognition of professional qualifications.

2.5 THE RELATIONSHIP BETWEEN TRAINING AND SERVICE

Basic standard:

The apprenticeship nature of professional development **must** be described and respected and the integration between training and service (on-the-job training) **must** be assured.

Quality development:

The capacity of the health care system **should** be effectively utilised for service based training purposes. The training provided **should** be complementary and not subordinated to service demands.

Annotations:

- *Integration between training and service* implies on one hand delivery of proper health care service by the trainees and on the other hand that learning opportunities are embedded in service functions.
- *Effective utilisation* refers to optimising the use of different clinical settings, patients and clinical problems for training purposes, and at the same time respecting service functions.

BS The quality development standard is considered a basic standard.

2.6 MANAGEMENT OF TRAINING

Basic standard:

The responsibility and authority for organising, coordinating, managing and assessing the individual training setting and the training process **must** be clearly identified.

Quality development:

Coordinated multi-site training within the chosen field of medicine **should** be ensured to gain exposure to different areas and management of the discipline. The authority responsible for the training programme **should** be provided with resources for planning and implementing methods for training, assessment of trainees and innovations of the training programme. There **should** be representation of staff, trainees and other relevant stakeholders in the planning of the training programme.

Annotation:

- *Other relevant stakeholders* would include other participants in the training process, representatives of other health professions and health authorities.

BS The quality development standard is considered a basic standard.

3. ASSESSMENT OF TRAINEES

3.1 ASSESSMENT METHODS

Basic standard:

Postgraduate medical training **must** include a process of assessment, and the competent authorities **must** define and state the methods used for assessment of trainees, including the criteria for passing examinations or other types of assessment. Assessment **must** emphasise formative in-training methods and constructive feedback.

Quality development:

The reliability and validity of assessment methods **should** be documented and evaluated and the use of external examiners **should** be encouraged. A complementary set of assessment methods **should** be applied. The different stages of training **should** be recorded in a training log-book. An appeal mechanism concerning assessment results **should** be established and, when necessary, second opinion, change of trainer/supervisor or supplementary training **should** be arranged.

Annotations:

- The *definition of methods used for assessment* may include consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between different types of examinations, the use of normative and criterion-referenced judgements, and the use of portfolio and special types of examinations, e.g. objective structured clinical examinations (OSCE).
- *Evaluation of assessment methods* may include an evaluation of how they promote training and learning.
- *External examiners* or auditors may increasingly represent global perspectives.

BS Statements about reliability and validity of assessment methods in the quality development standards is considered a basic standard.

A By a *complementary set of assessment methods* is meant a variety of methods to ensure assessment of learning competencies.

A Criterion-referenced judgements should be used whenever possible.

3.2 RELATION BETWEEN ASSESSMENT AND TRAINING

Basic standard:

Assessment principles, methods and practices **must** be clearly compatible with training objectives and **must** promote learning. Assessment **must** document adequacy of training.

Quality development:

The assessment methods and practices **should** encourage integrated learning and **should** assess pre-defined practice requirements as well as knowledge, skills and attitudes. The methods used **should** encourage a constructive interaction between clinical practice and assessment.

BS The quality development standard is considered a basic standard.

A *Adequacy of training* would include assessment of relevant skills and competencies.

3.3 FEEDBACK TO TRAINEES

Basic standard:

Constructive feedback on the performance of the trainee **must** be given on an ongoing basis.

Quality development:

Acceptable standards of performance **should** be explicitly specified and conveyed to both trainees and supervisors.

Annotation:

- *Feedback* would include assessment results and planned dialogues about clinical performance between trainees and trainers/supervisors with the purpose of ensuring instructions and remedies necessary to enhance competence development.

BS The quality development standard is considered a basic standard.

QD Feedback from the supervisor to the trainee **should** be based on information and reports from all members of the clinical team.

QD Potential unsuitability of the trainee for the chosen speciality **should** be voiced as early as possible and alternative career options discussed.

4. TRAINEES

4.1 ADMISSION POLICY AND SELECTION

Basic standard:

The competent authorities and the medical professional organisations **must** agree upon a policy on the criteria and process for selection of trainees and **must** publish and implement it.

Quality development:

The selection policy **should** define criteria, which considers specific capabilities of potential trainees in order to enhance the result of the training process in the chosen field of medicine. The selection procedure **should** be transparent and admission open to all qualified graduates from basic medical education. The selection procedure **should** include a mechanism for monitoring and appeal.

Annotations:

- The statement on *process of selection of trainees* would include both rationale and methods of selection and may include description of a mechanism for appeal.
- *Monitoring of admission policies* would include improvement of selection criteria, to reflect the capability of trainees to be competent and to cover the variations in required competencies related to diversity of the chosen field of medicine.
- *Criteria for selection* may include consideration of balanced intake according to gender, ethnicity and other social requirements, including the potential need of a special admission policy for underprivileged groups of doctors.

BS The quality development standard is considered a basic standard.

4.2 NUMBER OF TRAINEES

Basic standard:

The number of trainees **must** be proportionate to the clinical/practical training opportunities, supervisory capacity and other resources available in order to ensure training and teaching of adequate quality.

Quality development:

The number of trainees **should** be reviewed through consultation with relevant stakeholders. Recognising the inherent unpredictability of physician manpower needs in the various fields of medicine, the number of training positions **should** currently be changed with careful attention to existing needs of the community and society and the market forces.

Annotations:

- *Stakeholders* would include those responsible for planning and development of human resources in the local and national health sector.
- Forecasting of the *needs of the community and society* for trained physicians includes estimation of various market and demographic forces as well as the scientific development, migration patterns of physicians, etc.

BS Mechanisms to ensure that the number of training positions in different specialities is kept under constant review by all stakeholders and regulated to societal needs is considered a basic standard.

4.3 SUPPORT AND COUNSELLING OF TRAINEES

Basic standard:

The competent authorities **must**, in collaboration with the profession, ensure that a system for support, counselling and career guidance of trainees is available.

Quality development:

Counselling **should** be provided based on monitoring the progress in training and incidents reported and **should** address social and personal needs of trainees.

Annotation:

- *Social and personal needs* would include professional support, health problems, housing problems and financial matters.

BS The quality development standard is considered a basic standard.

QD Counselling **should** be available for doctors in training who, for whatever reason, have to change their chosen speciality.

4.4 WORKING CONDITIONS

Basic standard:

Postgraduate training **must** be carried out in appropriately remunerated posts/stipendiary positions in the chosen field of medicine and **must** involve participation in all medical activities - including on-call duties - relevant for the training, thereby devoting

professional activities to practical training and theoretical learning throughout standard working time. The service conditions and responsibilities of trainees **must** be defined and made known to all parties.

Quality development:

The service components of trainee positions **should** not be excessive and the structuring of duty hours and on-call schedules **should** consider the needs of the patients, continuity of care and the educational needs of the trainee. Part-time training **should** be allowed under special circumstances, determined by the competent authorities and structured according to an individually tailored programme and the service background. The total duration and quality of part-time training **should** not be less than those of full-time trainees. Interruption of training for reasons such as pregnancy (including maternity/paternity leave), sickness, military service or secondment **should** be replaced by additional training.

Annotations:

- *Contractual service positions* would include internship, residency, registrar, senior registrar, etc.
- *The service components of trainee positions* must be subject to definitions and protections embodied in the contract.

A *Policy on trainee representation* would include a transparent and democratic process for selection of representatives and involvement of representatives in decisions about the training programme at all levels.

- BS** The quality development standard is considered a basic standard.
- BS** Service conditions **must** specify that there is protected educational time for the trainees.
- BS** Training and service functions of medical doctors in training **must** respect the European Working Time Directive.

4.5 TRAINEE REPRESENTATION

Basic standard:

There **must** be a policy on trainee representation and appropriate participation in the design and evaluation of the training programme, the working conditions and in other matters relevant to the trainees.

Quality development:

Organisations of trainees **should** be encouraged to be involved in decisions about training processes, conditions and regulations.

Annotation:

- *Trainee representation* would include participation in groups or committees responsible for programme planning at the local or national level.

5. STAFFING

5.1 APPOINTMENT POLICY

Basic standard:

The policy on appointment of trainers, supervisors and teachers **must** specify the expertise required and their responsibilities and duties. The policy **must** specify the duties of the training staff and specifically the balance between educational and service functions and other duties.

Quality development:

All physicians **should** as part of their professional obligations recognise their responsibility to participate in the practice-based postgraduate training of medical doctors. Participation in postgraduate training **should** be awarded. The staff policy **should** ensure that trainers generally are current in the relevant field to its full extent and sub-specialised trainers only approved for relevant specific periods during the training.

Annotations:

- *Expertise* would include recognition as a specialist in the relevant field of medicine
- *Training staff* would include medical doctors and other health personnel
- *Other duties* would include administrative functions as well as other educational or research responsibilities.

BS The quality development standard is considered a basic standard.

A *Awarded* should be read as rewarded or recognised.

A *Physicians* in this context should also be understood as medical doctors.

ous academic activities, including functions as trainers, supervisors and teachers. The ratio between the number of recognised trainers and the number of trainees **should** ensure close personal interaction and monitoring of the trainee.

Annotation:

- *Recognition of meritorious academic activities* would be by rewards, promotion and/or remuneration.

BS The quality development standard is considered a basic standard.

5.2 OBLIGATIONS AND DEVELOPMENT OF TRAINERS

Basic standard:

Instructional activities **must** be included as responsibilities in the work-schedules of trainers and their relationship to work-schedules of trainees **must** be described.

Quality development:

Staff policy **should** include support of trainers including training and further development, if appropriate, and **should** appraise and recognise meritori-

6. TRAINING SETTINGS AND EDUCATIONAL RESOURCES

6.1 CLINICAL SETTINGS AND PATIENTS

Basic standard:

The training locations **must** be selected and recognised by the competent authorities and **must** have sufficient clinical/practical facilities to support the delivery of training. Training locations **must** have a sufficient number of patients and an appropriate case-mix to meet training objectives. The training **must** expose the trainee to a broad range of experience in the chosen field of medicine and, when relevant, include both inpatient and outpatient (ambulatory) care and on-duty activity.

Quality development:

The number of patients and the case-mix **should** allow for clinical experience in all aspects of the chosen specialty, including training in promotion of health and prevention of disease. Training **should** be carried out in academic teaching hospitals and, when appropriate, part of the training **should** take place in other relevant hospitals/institutions and community-based settings/facilities. The quality of training settings **should** be regularly monitored.

Annotations:

- *Community-based settings* would include specialist practices, specialty clinics, nursing homes, primary health care stations and other facilities where health care is provided.
- *The quality of training settings* can e.g. be evaluated through site visits.

BS The quality development standard is considered a basic standard.

A *Broad range of experience* would – in relevant disciplines – include dealing with emergency patients who present acutely.

6.2 PHYSICAL FACILITIES AND EQUIPMENT

Basic standard:

The trainee **must** have space and opportunities for practical and theoretical study and have access to adequate professional literature as well as equipment for training of practical techniques.

Quality development:

The physical facilities and equipment for training **should** be evaluated regularly for their appropriateness and quality regarding postgraduate training.

Annotation

- *Physical facilities* of the training location would include e.g. lecture halls, tutorial rooms, laboratories, libraries, information technology equipment, and recreational facilities where these are appropriate.

BS The quality development standard is considered a basic standard.

6.3 CLINICAL TEAMS

Basic standard:

The clinical training **must** include experience in working as a team with colleagues and other health professionals.

Quality development:

The training process **should** allow learning in a multi-disciplinary team resulting in the ability to work effectively with colleagues and other health professions as a member or leader of the health care team and **should** develop competencies in guiding and teaching other health professions.

BS The quality development standard is considered a basic standard.

6.4 INFORMATION TECHNOLOGY

Basic standard:

There **must** be a policy which addresses the effective use of information and communication technology in the training programme with the aim of ensuring relevant patient management.

Quality development:

Trainers and trainees **should** be competent to use information and communication technology for self-learning and in accessing data information and working in health care systems.

Annotations:

- A policy regarding the use of computers, internal and external networks and other means of *information and communication technology* would include coordination with the library services of the institution.
- The use of *information and communication technology* may be part of education for evidence-based medicine and in preparing the trainees for continuing medical education and professional development.

BS The quality development standard is considered a basic standard.

A *Competence in information and communication technology* would build on the requirements expressed in basic medical education.

6.5 RESEARCH

Basic standard:

There **must** be a policy that fosters the integration of practice and research in training settings. Description of the training setting **must** include research facilities and research activities and priorities.

Quality development:

Opportunities for combining clinical training and research **should** be made available. Trainees **should** be encouraged to engage in health quality development and research.

6.6 EDUCATIONAL EXPERTISE

Basic standard:

There **must** be a policy on the use of educational expertise relevant to the planning, implementation and evaluation of training.

Quality development:

Access to educational experts **should** be available and evidence demonstrated of the use of such expertise for staff development and for research in the discipline of postgraduate medical education.

Annotations:

- *Educational expertise* would deal with problems, processes and practice of postgraduate medical training and assessment, and would include medical doctors with experience in medical education, educational psychologists and sociologists, etc. It can be provided by an education unit at the institution or be acquired from another national or international institution.
- *Medical education research* investigates the effectiveness of training and learning methods, and the wider institutional context.

6.7 TRAINING IN OTHER SETTINGS AND ABROAD

Basic standard:

There **must** be a policy on accessibility of individualised training opportunities at other sites within or outside the country fulfilling the requirements for the completion of training and for the transfer of training credits.

Quality development:

Regional and international exchange of academic staff and trainees **should** be facilitated by the provision of appropriate resources. The competent authorities **should** establish relations with corresponding national or international bodies with the purpose of facilitating exchange and mutual recognition of training elements.

Annotation:

- Transfer of *training credits* can be facilitated through active programme coordination between training institutions.

BS Facilitating mobility is considered a basic standard.

7. EVALUATION OF TRAINING PROCESS

7.1 MECHANISM FOR PROGRAMME EVALUATION

Basic standard:

The relevant authorities and the profession **must** establish a mechanism for evaluation of the training programme that monitors the training process, facilities and progress of the trainee, and ensures that concerns are identified and addressed.

Quality development:

Programme evaluation **should** address the context of the training process, the structure and specific components of the programme and the general outcomes.

Annotations:

- *Mechanisms for programme evaluation* would imply the use of valid and reliable methods and require that basic data about the training programme are available. Involvement of experts in medical education and assessment would further broaden the base of evidence for quality of postgraduate training.
- *Identified concerns* would include problems presented to programme committees, trainers and tutors, etc.
- *The context of the educational process* would include the organisation and resources as well as the learning environment
- *Specific components for programme evaluation* would include training programme description and performance of trainees
- *General outcomes* would be measured e.g. by career choice and performance.

BS The quality development standard is considered a basic standard.

A *Evaluation of training facilities* would include site visits by external evaluators.

7.2 FEEDBACK FROM TRAINERS AND TRAINEES

Basic standard:

Feedback about programme quality from both trainers and trainees **must** be systematically sought, analysed and acted upon.

Quality development:

Trainers and trainees **should** be actively involved in planning programme evaluation and in using its results for programme development.

Annotation:

- *Feedback about programme* would include trainee reports about conditions in their courses.

7.3 USING TRAINEE PERFORMANCE

Basic standard:

The performance of trainees **must** be evaluated in relationship to the training programme and the mission of postgraduate medical education.

Quality development:

The performance of trainees **should** be analysed in relation to background and entrance qualifications, and **should** be used to provide feedback to the committees responsible for selection of trainees and for programme planning and counselling.

Annotation:

- *Measures of trainee performance* would include information about average duration of training, scores, pass and failure rates at examinations, success and dropout rates, as well as time spent by the trainees on areas of special interest.

7.4 AUTHORISATION AND MONITORING OF TRAINING SETTINGS

Basic standard:

All training programmes **must** be authorised by a competent authority based on well-defined criteria and programme evaluation and with the authority able to grant or, if appropriate, withdraw recognition of training settings or theoretical courses.

Quality development:

The competent authorities **should** establish a system to monitor training settings and other educational facilities via site visits or other relevant means.

Annotation:

- *Criteria* for authorisation of training settings would include minimal values for number and mix of patients, equipment, library and IT facilities, training staff and training programme.

BS The quality development standard is considered a basic standard.

7.5 INVOLVEMENT OF STAKEHOLDERS

Basic standard:

The processes and outcome of evaluation **must** involve the managers and administration of training

settings, the trainers and trainees and be transparent to all stakeholders.

Quality development:

The processes and outcome of evaluation **should** be credible to the principal stakeholders

Annotations:

- *Stakeholders* would include the medical professional organisations, other health professions, health authorities and authorities involved in training of doctors and allied health personal, hospital owners and providers of primary care, patients and patient organisations.
- *Principal stakeholders* include trainers, trainees and health authorities.

8. GOVERNANCE AND ADMINISTRATION

8.1 GOVERNANCE

Basic standard:

Training **must** be conducted in accordance with regulations concerning structure, content, process and outcome issued by competent authorities. Completion of training **must** be documented by degrees, diplomas, certificates or other evidence of formal qualifications conferred as the basis for formal recognition as a competent medical doctor in the chosen field of medicine by the designated authorities. The competent authority **must** continually assess training programmes, training institutions and trainers. The competent authority **must** be responsible for setting up a programme for quality training.

Quality development:

Procedures **should** be developed that can verify the documented completion of training for use by both national and international authorities.

Annotation:

- *Recognition as a competent medical doctor* would, depending on the level of training, include doctors with the right to independent practice, specialists, sub-specialists, experts, etc.

BS The quality development standard is considered a basic standard.

8.2 PROFESSIONAL LEADERSHIP

Basic standard:

The responsibilities of the professional leadership for the postgraduate medical training programme **must** be clearly stated.

Quality development:

The professional leadership **should** be evaluated at defined intervals with respect to achievement of the mission and outcomes of postgraduate medical training.

BS The quality development standard is considered a basic standard.

8.3 FUNDING AND RESOURCE ALLOCATION

Basic standard:

There **must** be a clear line of responsibility and authority for budgeting of training resources.

Quality development:

The budget **should** be managed in a way that supports the mission and outcome objectives of the training programmes and of the service.

Annotation:

- *Budgeting of training resources* would depend on the budgetary practice in each institution and country.

BS Funds intended for postgraduate training **must** not be diverted to support provision of clinical service or other activities.

8.4 ADMINISTRATION

Basic standard:

The administrative staff of the postgraduate medical training programmes and training institutions **must** be appropriate to support the implementation of the programme and to ensure good management and deployment of its resources.

Quality development:

The management **should** include a programme of quality assurance and the management **should** submit itself to regular review to achieve quality improvement.

8.5 REQUIREMENTS AND REGULATIONS

Basic standard:

A national body **must** be responsible for defining the number and types of recognised medical specialties and other medical expert functions for which approved training programmes are developed.

Quality development:

Definition of approved postgraduate medical training programmes **should** be made in collaboration with all relevant stakeholders.

Annotations:

- *A national body* established according to national laws and regulations would act in the interests of society as a whole.
- *Relevant stakeholders* would include national and local health authorities, universities, medical professional organisations, the public, etc.

BS The quality development standard is considered a basic standard.

QD Names and content of accepted specialities **should** reflect the European consensus, to facilitate recognition of diplomas and professional mobility.

9. CONTINUOUS RENEWAL

Basic standard:

In realising the dynamics of postgraduate medical training the relevant authorities **must** initiate procedures for regular review and updating of the structure, function and quality of the training programmes and **must** rectify identified deficiencies.

Quality development:

The process of renewal **should** be based on prospective studies and analyses and **should** lead to the revisions of the policies and practices of the postgraduate medical training programmes in accordance with past experience, present activities and future perspectives. In so doing it **should** address the following issues:

- *Adaptation of the mission and outcome objectives of postgraduate training to the scientific, socio-economic and cultural development of the society.*
 - *Modification of the competencies required on completion of postgraduate training in the chosen field of medicine in accordance with the needs of the environment the newly trained doctor will enter.*
 - *Adaptation of the learning approaches and training methods to ensure that these are appropriate and relevant.*
 - *Adjustment of the structure, content and duration of training programmes in keeping with the developments in the basic biomedical sciences, the clinical sciences, the behavioural and social sciences, and changes in the demographic profile and health/disease pattern of the population, and in socio-economic and cultural conditions.*
 - *Development of assessment principles and methods according to changes in training objectives and methods.*
 - *Adaptation of recruitment policy and methods of selection of trainees to changing expectations and circumstances, human resource needs, changes in basic medical education and the requirements of the training programme.*
 - *Adaptation of recruitment and policy of appointment of trainers, supervisors and teachers according to changing needs in postgraduate training.*
 - *Updating of training settings and other educational resources to changing needs in postgraduate training, i.e. the number of trainees, number and profile of trainers, the training programme and contemporary training principles.*
 - *Refinement of the process of programme monitoring and evaluation.*
- *Development of the organisational structure and management principles in order to cope with changing circumstances and needs in postgraduate training and, over time, accommodating to the interests of the different groups of stakeholders.*

STANDARDS IN CPD OF MEDICAL DOCTORS WITH EUROPEAN SPECIFICATIONS

1. MISSION AND OUTCOMES

1.1 STATEMENTS OF MISSION AND OUTCOMES

Basic standard:

The medical profession, in consultation with relevant authorities and employers, **must** define the mission and intended outcomes of CPD and make them publicly known.

Quality development:

The mission **should** encourage and support doctors to improve their practice performance and **should** address the obligation of the medical profession to improve the conditions for effective CPD.

Annotations:

- *Statements of mission and intended outcomes* would include general and specific issues relevant to national and regional policy and would describe what is expected from doctors about their maintenance and development of competencies.
- With due regard to national traditions, *the medical profession* would in general act through their professional organisations such as the medical associations, scientific societies, medical colleges, medical academies, etc.
- *Relevant authorities* would include local and national bodies involved in regulation of the medical profession.

BS The quality development standard is considered a basic standard.

1.2 PARTICIPATION IN THE FORMULATION OF MISSION AND OUTCOMES

Basic standard:

The statement of mission and intended outcomes of CPD **must** be defined by its principal stakeholders.

Quality development:

Formulation of mission and outcome statements **should** be based on input from a wider range of stakeholders.

Annotations:

- *Principal stakeholders* would include individual doctors, professional associations or organisations, medical scientific societies, medical schools/universities, postgraduate institutes, employers, relevant CPD providers and governmental authorities.

- *A wider range of stakeholders* would include representation of supervisors, trainers, teachers, other health professionals, patients, the local community, voluntary health organisations, and health care authorities.

A *Principle stakeholders* would include regulatory authorities.

1.3 PROFESSIONALISM AND AUTONOMY

Basic standard:

CPD **must** serve the purpose of enhancing the professional and personal development of doctors.

Quality development:

The process of CPD **should** serve to strengthen professionalism of doctors and enable them to act autonomously in the best interests of their patients and society.

Annotations:

- *Professionalism* encompasses the knowledge, skills, attitudes, values and behaviours expected of individuals during the practice of their profession, and includes concepts such as maintenance of competence, information literacy, ethical behaviour, integrity, honesty, altruism, service to others, adherence to professional codes, justice, and respect for others.
- *Autonomy* in the patient-doctor relationship shall ensure that doctors at all times make informed decisions in the best interest of their patients, based on best available evidence, whereas autonomy related to doctors' learning implies that they have the final say in deciding what to learn and how to plan and carry out learning activities. Also, it implies access to the knowledge and skills training doctors need to keep abreast and meet the needs of their patients, and that the sources of knowledge are independent and unbiased.
- *Personal development* in this context is limited to what is relevant to practice and the profession.

1.4 OUTCOMES OF CPD

Basic standard:

Doctors **must** ensure that CPD activities undertaken are adequate to maintain and develop competencies necessary to meet the needs of their patients and society.

Quality development:

Doctors, in consultation with peers and professional organisations, **should** define the competencies or benefits to be achieved as a result of CPD. Learning from CPD-activities **should** be shared with peers.

Annotations:

- *Competencies* can be defined in broad professional terms or as specific knowledge, skills, attitudes and behaviours. Competencies relevant for CPD would, at a level dependant on the chosen field in medicine, include the following areas:
 - Patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion
 - Medical knowledge in the basic biomedical, clinical, behavioural and social sciences and medical ethics and medical jurisprudence and application of such knowledge in patient care
 - Interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public
 - Appraisal and utilisation of new scientific knowledge to continuously update and improve clinical practice
 - Function as supervisor, trainer and teacher in relation to colleagues, medical students and other health professions
 - Scholarly capacity to contribute to development and research in the chosen field of medicine
 - Professionalism
 - Interest and ability to act as an advocate for the patient
 - Knowledge of public health and health policy issues and awareness and responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations
 - Ability to understand health care, and identify and carry out system-based improvement of care.
- *Development of competencies* would include broadening and deepening of existing knowledge and skills besides activities undertaken to meet broader learning needs or purposes.

A *Consultation with peers and professional organisations* would be preceded by self-assessment and associated with appraisal.

2. LEARNING METHODS

2.1 APPROACHES TO CPD

Basic standard:

CPD **must** be tailored to the needs of the individual doctor and carried out on a continuous basis. The learning **must** encompass integrated practical and theoretical components in order to enhance medical practice.

Quality development:

CPD **should** take advantage of a variety of learning modalities. Doctors **should** engage with colleagues in learning networks to share experiences and benefit from collaborative learning.

Annotations:

- *Integration of practice and theory* can take place in didactic learning sessions and supervised patient care experiences as well as through self-directed and active learning.
- *Learning modalities* would include courses, lectures, seminars, participation in conferences and individual reading, self-assessment of knowledge base and practice performance, research projects as well as study visits and clinical experiences.
- *Networks* would include meetings with colleagues and net-based information exchange, discussions and counselling. They could also include other health care professionals and relevant other persons/groups.

BS The quality development standard is considered a basic standard.

A *Learning modalities* include audit of the doctor's own practice.

2.2 SCIENTIFIC METHODS

Basic standard:

CPD content **must**, whenever possible, be based firmly on science and practice evidence.

Quality development:

Through CPD doctors **should** be able to improve their practice, drawing on data from emerging scientific evidence. Doctors **should** be able to access and receive updated evidence based on clinical knowledge, skills and attitudes. In the learning process doctors **should** acquire the knowledge of appropriate scientific

methods to improve their critical appraisal skills.

2.3 CONTENT OF CPD

Basic standard:

CPD **must** be diverse and flexible in content to enable doctors to develop their practice.

Quality development:

Doctors **should** select CPD content based upon self-directed plans for learning that are consistent with their various professional roles.

Annotations:

- *Diverse* CPD refers to broader or narrower needs of doctors, depending on the nature of their practice, and also allows for personal interests and development.
- *Flexible* implies meeting emergent needs as soon and as far as possible.
- *Content* would include:
 - *The basic biomedical sciences* - depending on local needs, interests and traditions - typically include anatomy, biochemistry, physiology, biophysics, molecular biology, cell biology, genetics, microbiology, immunology, pharmacology, pathology, etc.
 - *Clinical sciences* include the chosen clinical or laboratory disciplines and other relevant clinical/laboratory disciplines.
 - *Behavioural and social sciences* - depending on local needs, interests and traditions - typically include medical psychology, medical sociology, biostatistics, epidemiology, hygiene and public health and community medicine, etc.
 - *The behavioural and social sciences and medical ethics* provide the knowledge, concepts, methods, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems as well as the organisation of health care delivery systems.
- *Various roles of doctors* would include functions as medical expert, health advocate, communicator, collaborator and team-worker, scholar, administrator and manager.

2.4 THE PROCESS OF CPD

Basic standard:

The medical profession **must** describe, on a national basis and in consultation with other stakeholders, the expectations for CPD as a process of life-long learning, with informal self-directed learning being the cornerstone of CPD.

Quality development:

The medical profession **should** establish formal collaboration with other stakeholders in order to achieve a broad spectrum of learning possibilities.

2.5 RELATION BETWEEN CPD AND SERVICE

Basic standard:

CPD **must** be recognised as an integral part of medical practice reflected in budgets, resource allocations and time planning, and not be subordinate to service demands.

Quality development:

CPD **should** be tailored to fill gaps in knowledge, skills, attitudes and management, identified in appraisal of service or individual reflection on practice and personal interests. CPD **should** be used to implement scientific developments and improvements in the organisation and practise of the health care sector.

Annotations:

- Recognition *as an integral part of medical practice* refers to optimising the use of different clinical settings, patients and clinical problems for training purposes, seamlessly integrated in the service functions.
- To ensure that *gaps in knowledge, skills, attitudes and management* are identified and adequate action taken, needs assessment by peers and/or self-assessment is recommended.

2.6 MANAGEMENT OF CPD

Basic standard:

Doctors **must** have the ultimate responsibility for planning and implementing CPD for their individual needs.

Quality development:

The medical profession, in collaboration with relevant stakeholders, **should** organise CPD activities and establish systems to fund and sustain CPD in response to needs identified by their members.

Annotation:

- *Relevant stakeholders* would include other participants in the training process, representatives of other health professions and health authorities.

BS In defining their CPD needs doctors **must** achieve regular appraisal from peers.

A *Appraisal* is defined in this document as: evaluation of strengths and weaknesses in discussion with colleagues linked to a process of systematic self evaluation based on reflection.

3. PLANNING AND DOCUMENTATION

3.1 DOCUMENTATION OF NEEDS FOR PLANNING CPD

Basic standard:

The main basis for the planning of CPD activities **must** be to address clinical practice and public health needs. The medical profession **must** determine the perceived needs of doctors and make these known for planning of CPD.

Quality development:

Systems **should** be developed that provide documented data for alerting medical doctors and stakeholders about practice quality, tracking outcome and comparison with peer groups.

BS The quality development standard is considered a basic standard.

A *Public health needs* would include knowledge about new diseases, and innovations in diagnosis, treatment and prevention, as well as in the healthcare system.

3.2 DOCUMENTATION OF CPD ACTIVITIES

Basic standard:

Systems **must** be established to document recognised CPD activities in a systematic and transparent way. Documentation of CPD **must** be used as a formative learning tool as well as providing feedback on relevance and quality for planning of CPD.

Quality development:

The objective of any system of documentation of CPD **should** be to acknowledge actual learning and, where appropriate, enhanced competence, not mere participation in CPD activities. Doctors **should** create personal learning portfolios that can be shared with peers.

4. THE INDIVIDUAL DOCTOR

4.1 MOTIVATION

Basic standard:

Delivery of high quality care **must** be the driving force for doctors participating in CPD activities. Doctors choosing among CPD activities **must** judge their educational value and select activities of high quality and appropriate for their learning needs.

Quality development:

CPD activities **should** enhance motivation to learn and improve and be recognised as a meritorious professional activity.

Annotations:

- *High quality care* means health care delivery according to generally accepted principles, stated by e.g. medical scientific societies or national and international health boards.
- *Motivation* and skills for life-long learning are developed during basic medical education and enhanced as part of postgraduate medical training.
- *Recognition of meritorious professional activity* would be by improved personal satisfaction, rewards, promotion and/or remuneration.

4.2 LEARNING STRATEGIES

Basic standard:

Doctors, assisted by their professional organisations, **must** develop their ability systematically to plan, execute and document practice-based learning in response to defined learning needs. Tools for self-assessment **must** be developed to help doctors identify their learning needs.

Quality development:

CPD activities of doctors **should** be based on learning strategies, which lead to enhancement of the quality of care and include interdisciplinary team learning when appropriate.

Annotation:

- *Practice-based learning* implies a systematic use of data from one's own practice to stimulate learning and improvement, e.g. analyse practice experience and perform practice-based improvement activities using systematic methods, and locate, appraise, and assimilate evidence from scientific studies related to the patient population.

A *Ability to plan, execute and document practice-based learning* begins in basic medical education, is enhanced during postgraduate training and further enhanced in CPD.

4.3 WORKING CONDITIONS

Basic standard:

Working conditions in the practice of medicine and employment of doctors **must** provide the time and other resources for CPD.

Quality development:

Systems of remuneration for doctors **should** allow for their participation in a broad range of CPD activities relevant to their needs.

4.4 INFLUENCE OF DOCTORS ON CPD

Basic standard:

Doctors **must** be given the opportunity to discuss their learning needs with CPD providers.

Quality development:

Systems **should** be developed to involve doctors in planning and implementation of their CPD activities.

Annotations:

- *CPD providers* would include primarily the professional associations and organisations, national and international medical scientific societies, medical schools/universities, postgraduate institutes, employers in the health care system and other providers such as health authorities, the pharmaceutical and medical device industry, companies in information technology, consumer associations, etc.
- Involvement with process of *planning and implementation* would include participation in groups or committees responsible for programme planning at the local or national level.

BS The quality development standard is considered a basic standard.

5. CPD-PROVIDERS

5.1 RECOGNITION POLICY

Basic standard:

There **must** be a system for recognition of CPD providers and/or the individual CPD activities.

Quality development:

All CPD providers **should** be able to describe the educational basis of their activities including access to educational expertise. Any conflicting interests of CPD providers **should** be declared.

Annotation:

- *Conflicting interests* could include inappropriate promotional activities.

BS The quality development standard is considered a basic standard.

5.2 OBLIGATIONS OF PROVIDERS

Basic standard:

The providers of CPD activities **must** meet agreed educational quality requirements.

Quality development:

The providers, in planning and conducting their activities, **should** demonstrate use of appropriate educational methods and technology.

5.3 FEEDBACK TO PROVIDERS

Basic standard:

Constructive feedback to CPD providers on the performance and learning needs of doctors **must** be given on an ongoing basis.

Quality development:

Acceptable norms for the provision of CPD **should** be established and adhered to by all providers. Systems for systematic feedback to organisers of and responsible bodies for CPD **should** be developed.

Annotations:

- *Feedback* would include planned communication between trainees and trainers/supervisors with the purpose of ensuring remedies necessary to enhance competence development.

- *Systems for systematic feedback* could be data on planning, execution and outcome of CPD for a certain cohort of doctors.

- A** *Systems for systematic feedback* would also include information about the quality of activities and the willingness of organisers to respond to that feedback.
- A** Trainees would mean medical doctors participating in CPD activities.

5.4 ROLE OF MEDICAL SCHOOLS

Basic standard:

Medical schools **must** provide leadership in improving the quality of CPD. Medical schools **must** through the curriculum in basic medical education initiate motivation and ability to engage in CPD by preparing the students for life-long learning.

Quality development:

Medical schools **should**, when appropriate, provide CPD activities. Medical schools, in cooperation with other stakeholders, **should** undertake research on CPD activities.

- A** *The provision of leadership in improving the quality of CPD* would include the involvement of medical school staff in the work of other competent bodies providing CPD.

6. EDUCATIONAL CONTEXT AND RESOURCES

6.1 STRUCTURE OF TRAINING

Basic standard:

CPD activities **must** be provided in settings and circumstances that are conducive to effective learning.

Quality development:

CPD **should** include periodic external review of the practice's learning environment based on internal self-evaluation.

Annotation:

- *Structure of training* refers to the overall sequence of attachment to the training settings and charge of the doctor and not the details of the training experiences.

A *Circumstances* would include the environment of the practice, to allow doctors activities in reading and networking, etc.

6.2 PHYSICAL FACILITIES AND EQUIPMENT

Basic standard:

In order to carry out CPD doctors **must** have protected time and opportunities for reflection on practice and for in-depth studies with access to adequate professional literature and opportunities for skills training.

Quality development:

Physical facilities, skills training equipment and work schedule **should** be evaluated and updated regularly for their appropriateness in providing adequate context and conditions for CPD.

6.3 INTERACTION WITH COLLEAGUES

Basic standard:

CPD **must** include experience in collaborating with colleagues and other health professionals.

Quality development:

To enhance CPD doctors **should** join educational networks. Doctors **should** engage in development of the competence of their colleagues, including doctors in training, students, allied health personnel, etc.

Annotation:

- *Networks* would include meetings with colleagues and net-based information exchange, discussions and counselling.

A *Collaborating with colleagues and other health professionals* would include learning with and from them.

6.4 INFORMATION TECHNOLOGY

Basic standard:

Relevant use of information and communication technology **must** function as an integrated part of the CPD process.

Quality development:

Doctors **should** have access and be competent to use information and communication technology for self-directed learning, for communication with colleagues, information searching, and patient and practice management.

6.5 FORMALISED CPD ACTIVITIES

Basic standard:

The medical profession, in collaboration with other stakeholders, **must** develop systems that encourage and recognise participation in local, national, and international CPD courses, scientific meetings and other formalised activities. Doctors **must** have opportunities to attend such CPD activities.

Quality development:

Doctors **should** have opportunities to plan and execute CPD activities as in-depth studies when needed to reach a higher level of competence in an effective way.

QD Formalised CPD activities **should** not be the only registered activity used in any system of performance review or recertification or as basis for maintenance of licensure.

6.6 EDUCATIONAL EXPERTISE

Basic standard:

The medical profession **must** formulate a policy on the use of educational expertise relevant to the planning, implementation and evaluation of CPD.

Quality development:

Access to educational expertise **should** be available and be used in CPD activities.

Annotations:

- *Formulation of policy* would include consultation with relevant stakeholders.
- *Educational expertise* would deal with problems, processes and practice of medical training and would include medical doctors with experience in medical education, educational psychologists and sociologists, etc.

6.7 EXPERIENCES IN OTHER SETTINGS AND ABROAD

Basic standard:

The medical profession **must** formulate a policy that ensures freedom of movement in order to promote the ability of doctors to obtain experience by visiting other settings within or outside the country.

Quality development:

The medical profession, in collaboration with other stakeholders, **should** facilitate national and international study visits for doctors. The relevant authorities **should** establish relations with corresponding national or international bodies with the purpose of facilitating provision and mutual recognition of CPD activities.

Annotation:

- *Formulation of policy* would include consultation with relevant stakeholders.

7. EVALUATION OF METHODS AND COMPETENCIES

7.1 MECHANISMS FOR EVALUATION

Basic standard:

The medical profession **must** establish mechanisms for evaluation of CPD activities and appropriate assessment of the ensuing learning.

Quality development:

CPD evaluation **should** involve experts in medical education and address the context of the learning process, the structure and specific components of CPD and the learning outcomes.

Annotations:

- *Mechanisms for evaluation* would imply the use of valid and reliable methods and require that basic data are available. The evaluation would ensure that relevant concerns are identified and addressed by monitoring the resources available, the learning processes, outcomes and benefits.
- *Assessment* may include consideration of various tools for self-assessment, the use of normative and criterion referenced judgements, and the use of portfolio and special types of assessments, e.g. site visits by peers on an agreed protocol.
- *Involvement of experts* in medical education would further broaden the base of evidence for quality. This must ensure monitoring the resources available, the learning outcome and the benefits derived by the individual doctor.
- *The context of the learning process* would include the organisation and resources as well as the learning environment.
- *Specific components of CPD* would include programme description and intended outcomes.

7.2 FEEDBACK FROM CPD ACTIVITIES

Basic standard:

Feedback from participants in CPD activities **must** be systematically sought, analysed and acted upon, and the information made available to stakeholders.

Quality development:

CPD participants **should** be involved actively in CPD evaluation and in using the results for planning.

7.3 ACTIVITIES BASED ON DOCTORS PERFORMANCE

Basic standard:

Providers of CPD activities **must** seek information from the targeted doctor audience as the basis for planning.

Quality development:

The benefit from participation in CPD activities **should** be analysed in relation to doctors' needs and used to provide feedback to the professional organisations and CPD-providers.

QD Benefits from participation in CPD **should** also be analysed in terms of influence on patient care and outcomes and on professional practice.

7.4 MONITORING AND RECOGNITION OF CPD

Basic standard:

The formal structure of CPD activities **must** be authorised by the medical profession in consultation with relevant authorities based on agreed criteria.

Quality development:

Documentation of relevant CPD activities, as defined by the participant, **should** play a significant role in systems for competence assessment, irrespective of the system in use for recognition of the doctor in practice.

Annotations:

- *Agreed criteria* for authorisation of CPD activities deal with the educational value and would include consideration of number of participants, clinical data, equipment, library and IT facilities, training staff and programme.
- *Recognition of the doctor in practice* would - dependent on national rules and regulations - include maintenance of licensure.

8. ORGANISATION

8.1 FRAMEWORKS

Basic standard:

CPD **must** be conducted in accordance with the policies of representative professional organisations, including the recognition of activities and their evaluation.

Quality development:

Collaboration and mutual recognition **should** be encouraged through appropriate frameworks both nationally and internationally.

- A** A European example of *international recognition* would be the system used by the European Accreditation Council for Continuing Medical Education (EACCME) developed by UEMS.

Quality development:

Funding systems for CPD **should** ensure independence of doctors in their choices of CPD activities.

8.4 MANAGEMENT

Basic standard:

CPD activities **must** be appropriately managed and resourced.

Quality development:

The administrative structures for CPD **should** include quality assurance and improvement.

- BS** Administrative structures **must** be simple and clear.

8.2 PROFESSIONAL LEADERSHIP

Basic standard:

The medical professional organisations **must** take responsibility in terms of leadership and organisation for CPD activities.

Quality development:

The professional leadership **should** be evaluated regularly with respect to achievement of the mission and outcomes of CPD activities.

- BS** There **must** be a clear statement about which medical professional organisation(s) has responsibility for leadership and organisation of CPD activities.

8.3 FUNDING AND RESOURCE ALLOCATION

Basic standard:

Funding of CPD activities **must** be part of the expenses of the health care system. Doctors working conditions **must** enable them to choose and participate in CPD activities.

9 CONTINUOUS RENEWAL

Basic standard:

The medical profession **must** initiate procedures for regular review and updating of the structure, function and quality of the CPD activities and rectify deficiencies.

Quality development:

The process of renewal **should** be based on research. In so doing it **should** address the following issues:

- *Adaptation of the mission and outcomes of CPD to the scientific, socio-economic and cultural development of the society.*
- *Re-examining and defining the competencies required to incorporate medical scientific progress and the changing needs of the people.*
- *Reviewing learning approaches and training methods to ensure that these are appropriate and relevant.*
- *Development of methods of (self)assessment and practice-based learning to facilitate doctors' life-long learning.*
- *Development of the organisational and managerial structures to help doctors to meet their patients emerging needs and to deliver high quality care.*
- *Reflection and continual improvement of CPD contents and methodology.*

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1. PREFACE TO THE TRILOGY OF WFME DOCUMENTS

*The Executive Council
The World Federation for Medical Education*

Global Standards in Medical Education

The improved health of all peoples is the main goal of medical education. This is also the overall mission of the World Federation for Medical Education (WFME). In keeping with its constitution, as the international body representing all medical teachers and medical teaching institutions, WFME undertakes to promote the highest scientific and ethical standards in medical education, initiating new learning methods, new instructional tools, and innovative management of medical education.

In accordance with this mandate, WFME in its 1998 position paper launched the programme on *International Standards in Medical Education*. The purpose was to provide a mechanism for quality improvement in medical education, in a global context, to be applied by institutions responsible for medical education, and in programmes throughout the continuum of medical education.

In the early stages of developing the initial document, *Standards in Basic Medical Education*, it became clear that specifying global standards in any restricted sense would exert insufficient impact on the medical schools and their curricula, and indeed would have the potential to lower the quality of medical education. The criticism has become commonplace that medical education has adjusted inadequately both to changing conditions in the health care delivery system, and to the needs and expectations of societies. Thus, a lever for change and reform had essentially to be incorporated into the standards. This led to the concept of the WFME standards to be framed to specify attainment at two different levels: (a) basic standards or minimum requirements; and (b) standards for quality development.

That the WFME *Standards* would have the status as an accreditation instrument was considered from the outset. After deliberation WFME has taken the position that only nationally appointed agencies can be directly responsible for accreditation procedures. However, WFME could have a role in assisting in an accreditation process were one to be introduced. Globally adopted standards can function as a template for the agencies designated to implement recognition/accreditation. It would also be appropriate for WFME to develop guidelines and procedures for the use of its standards for accreditation purposes.

In the quality improvement of medical education, indispensable components are institutional self-evaluation, external review, and consultation. Both the structure and the function of WFME are conducive to the Federation partaking in setting up consultation teams in the entire world Regions.

The medical workforce is in principle globally mobile and WFME *Standards* have a role in the safeguarding of an adequate educational grounding of migrating doctors. However, incentives for retaining locally trained doctors in post in their own Regions are equally essential. The WFME *Standards* should not be viewed as encouraging increasing medical mobility and spurring brain drain of doctors from the developing world. The world is characterised by increasing internationalisation, from which the medical workforce is not immune, and the *Standards* should serve as necessary quality-assuring credentials of medical doctors wherever they are based.

To ensure that competencies of medical doctors are globally applicable and transferable, readily accessible and transparent documentation of the levels of quality of educational institutions and their programmes is essential. The *World Directory of Medical Schools*, published by the World Health Organization, was never intended for a purpose other than a listing and qualitative considerations were explicitly excluded. WFME suggested already in its position paper of 1998 that a *World Register of Medical Schools* be developed, aiming

to constitute a roster of quality assurance in medical educational institutions, and indicating specifically that institutions included have attained globally accepted and approved standards for medical education programmes.

The WFME *Global Standards* presented in this trilogy covers all three phases of medical education: **basic medical education; postgraduate medical education; and continuing professional development**. The three documents will provide the essential background material of the World Conference in Medical Education: *Global Standards in Medical Education for Better Health Care*, Copenhagen, 15 – 19 March 2003.

In developing the *Standards*, WFME appointed three International Task Forces, each constituted by a Working Party meeting on a retreat basis, and by a broader Panel of Experts, the latter communicating mainly electronically. Members of the Task Forces were selected on basis of their expertise and with geographical coverage an important consideration. The drafts of the *Standards* documents have been discussed on many occasions and in numerous settings around the world, and the many responsive commentaries received have been collated and incorporated.

The three sets of *Global Standards* are in different stages of implementation, but the Executive Council of WFME has formally adopted all. The document on *Standards in Basic Medical Education* has been translated into more than ten languages, validated in pilot studies at a number of medical schools, and are already influencing national and regional systems of recognition and accreditation of medical schools.

WFME is profoundly indebted to all who have contributed to this very complex process of formulating global standards. The enthusiasm and readiness to assist encountered in all Regions has been overwhelming, thereby signalling that the *Standards* are both desirable and implementable.

On the threshold of the 2003 World Conference, the Federation urges the medical education constituency, together with all those responsible for providing doctors and health services in the countries of the world, to contribute to the work in progress for definition and utilisation of the content in this trilogy, thereby further validating and endorsing the WFME *Global Standards in Medical Education*.

2. WFME STANDARDS IN BASIC MEDICAL EDUCATION: INTRODUCTION AND DEFINITIONS

HISTORY

WFME, since 1984, has conducted an "International Collaborative Programme for the Reorientation of Medical Education". Cornerstones in this process were the *Edinburgh Declaration*, 1988 (1), which was adopted by the World Health Assembly, WHA Resolution 42.38, 1989 (2), and the *Recommendations of the World Summit on Medical Education*, 1993 (3), reflected in WHA Resolution 48.8, *Reorientation of Medical Education and Medical Practice for Health for All*, 1995 (4).

To further promote change and innovation in medical education, WFME decided to extend implementation of its educational policy to the institutional level as described in a WFME Position Paper (1998) (5). The initial focus is on Basic (Undergraduate) Medical Education in medical schools. The initiative will subsequently be extended to Postgraduate Medical Education, and Continuing Professional Development (CPD) of Medical Doctors.

The WFME project on *International Standards in Medical Education* (5), approved by the World Health Organisation (WHO) and the World Medical Association (WMA), has three main intentions:

- to stimulate medical schools to formulate their own plans for change and for quality improvement in accordance with international recommendations;
- to establish a system of national and/or international evaluation and accreditation of medical schools to assure minimum quality standards for medical school programmes;
- to safeguard practice in medicine and medical manpower utilisation, and its increasing internationalisation, by well-defined international standards of medical education.

This undertaking has regional precedents for developing curriculum standards, such as the Project EMA (Medical Education in the Americas) of PAFAMS (6) and the ROME (Reorientation of Medical Education) Project in South East Asia (7). WHO has also examined the procedure for developing standards (8).

THE WFME PROJECT ON STANDARDS IN BASIC MEDICAL EDUCATION

Extending its project on *International Standards in Medical Education*, the Executive Council of WFME in December 1998 appointed an International Task Force consisting of a Working Party and an International Panel of Advisors, charged with defining international standards for educational programmes in Basic (Undergraduate) Medical Education.

The first meeting of the Working Party took place in Copenhagen (October 1999). In its Report (9), the Working Party defines a set of international standards in basic medical education designed to enable medical schools at various stages of development, and with different educational, socio-economic and cultural conditions, to use the system of standards at a level appropriate to them. Emphasis is placed on standards functioning as a lever for change and reform.

The second meeting of the WFME Working Party in Barcelona (March 2001) refined the document entitled *International Standards in Basic Medical Education* in the light of comments received from the International Panel of Advisors and from a number of conferences around the world at which the draft document was presented. In addition, the Working Party developed guidelines for the implementation of the standards.

The final document was adopted by the WFME Executive Council June 2001.

CONCEPT

International standards, which have general applicability for basic medical education, can be defined (5). These take account of the variations among countries in medical education due to differences in teaching tradition, culture, socio-economic conditions, the health and disease spectrum, and different forms of health care delivery systems. Such differences can also occur within individual countries. The scientific basis of medicine is universal. The task of medical education everywhere is the provision of health care. Notwithstanding variations, there is a high degree of equivalence of structure, process and product of medical schools worldwide.

A global set of standards for medical education is not to be equated with a global core curriculum. The core of the medical curriculum consists of the fundamental theory and practice of medicine, specifically basic biomedical, behavioural and social sciences, general clinical skills, clinical decision skills, communication abilities and medical ethics, and must be addressed by all medical schools aiming to produce safe practitioners of quality. These elements have an important bearing on the concept of international standards in medical education, but such standards do not address details regarding content and quantity.

Equally relevant for international standards is the *process* of medical education. Desirable practices in educating the basic doctor, incorporating well-recognised and accepted principles of learning, together with the institutional conditions for educational activities, must form the basis for international standards.

International standards, of course, must be modified or supplemented according to regional, national and institutional needs and priorities. WFME has clearly emphasised that there can be no benefit in fostering uniformity of educational programmes (5). Moreover, quality assurance of medical school programmes must emphasise improvement and provide guidance for achieving it to avoid interpretation of standards as a levelling at a lower level of quality among institutions.

Standards are firstly useful for educational institutions as their basis for internal evaluation and quality improvement. They are a necessary tool when external evaluation, recognition and accreditation of medical schools are carried out. Furthermore, standards might best be used in quality evaluation studies of medical schools by combining institutional self-evaluation and peer review.

PURPOSE

Several recent reports have described the necessity for radical changes and innovations in the structure and process of medical education at all levels (10-14). Such reconstruction is essential to:

- prepare doctors for the needs and expectations of society;
- cope with the explosion in medical scientific knowledge and technology;
- inculcate physicians' ability for lifelong learning;
- ensure training in the new information technologies;
- adjust medical education to changing conditions in the health care delivery system.

WHO has also advocated the need for change in medical education (15-17). It has proposed a series of activities intended to meet the current and future requirements of society, especially underlining the importance of understanding the doctors' function in the society, and the need for continuing education and for inter-professional collaboration.

Only a minority of the more than 1600 medical schools worldwide are subject to external evaluation and accreditation procedures. Such omission causes major concern when the imperative for reform is amply documented. The rapid increase in the number of new medical schools in the last decades, many established on unacceptable grounds (e.g. some private »for profit« schools), adds to the disquiet.

Thus, a central part of the WFME strategy is to give priority to specification of international standards and guidelines for medical education, comprising both institutions and their educational programmes. Adoption of international standards will constitute a new framework for medical schools to measure themselves. Furthermore, internationally accepted standards could be used as a basis for national and regional recognition and accreditation of medical schools' educational programmes.

RATIONALE

The WFME Working Party examined the advantages of, and the reservations about, developing international standards in basic medical education. Attention was also focused on the general application of guidelines in quality development of basic medical education (9). For international standards to be generally accepted, the following premises were adopted:

- Only general aspects of medical schools and medical education should be covered.
- Standards should be concerned with broad categories of the content, process, educational environment and outcome of medical education.
- Standards should function as a lever for change and reform.
- Compliance with standards must be a matter for each community, country or region.
- Standards should be formulated in such a way as to acknowledge regional and national differences in the educational programme, and allow for different profiles and developments of the individual medical schools, respecting reasonable autonomy of the medical schools.
- Use of a common set of international standards does not imply or require complete equivalence of

programme content and products of medical schools.

- Standards should recognise the dynamic nature of programme development.
- Standards are formulated as a tool which medical schools can use as a basis and a model for their own institutional and programme development.
- Standards should not be used in order to rank medical schools.
- Standards are intended not only to set minimum requirements but also to encourage quality development beyond the levels specified. The set of standards, in addition to basic requirements, should include directions for quality development.
- Standards should be further developed through broad international discussion and consensus.
- The value of the standards must be tested in evaluation studies in each region. Such projects should be based on a combination of voluntary institutional self-evaluation and peer review.

Standards are not an »either/or« matter, but a matter of specific conduct and intentional planning. Furthermore, some schools might develop so unique a quality as to go beyond standards achieved by most medical schools. Such qualities might, in the long run, serve as examples for new goal-setting in medical schools.

Standards must be clearly defined, and be meaningful, appropriate, relevant, measurable, achievable and accepted by the users. They must have implications for practice, recognise diversity and foster adequate development.

Evaluation based on generally accepted standards is an important incentive for improvement and for raising the quality of medical education, both when reorientation and reform are pursued, and also to promote continuous improvement and development.

Adoption of internationally accepted standards has the potential to provide a basis for national evaluation of medical schools as well as broader regional recognition.

WFME considers that the operation of standards can promote discussion and stimulate development of consensus about objectives, and will help schools to formulate essentials of their educational programmes and to define the core of medical education. Standards will broaden opportunities for educational research and development and foster discussion and cooperation across departmental and other boundaries.

The existence of standards will empower educators in their effort to bring about change, and will serve to guide medical students' choices.

For curriculum planners, acceptance of standards will save time and resources.

Adoption of standards for quality evaluation will provide valuable orientation for fund providers, politicians and society.

Placing medical education on a basis of shared international standards will facilitate exchange of medical students, and ease the acceptance of medical doctors in countries other than those in which they trained. In consequence, the burden of judging the competencies of doctors who have been educated in medical schools in different countries will be diminished.

Finally, substandard medical schools can be improved by use of a system of evaluation and accreditation based on internationally accepted standards. This is likely to enhance the quality of health care, both nationally and internationally.

USE OF STANDARDS

Standards for basic (undergraduate) medical education have been used for many years in national systems of evaluation and accreditation of medical education (18-20). The methods used differ from country to country.

It is the opinion of WFME that the set of international standards presented can be used globally as a tool for quality assurance and development of basic medical education. This could be done in different ways, such as:

- **Institutional Self-evaluation**

The primary intention of WFME in introducing an instrument for quality improvement is to provide a new framework against which medical schools can measure themselves in voluntary institutional self-evaluation and self-improvement processes. The guidelines can thus be considered a Self-study Manual for medical schools seeking to meet the WFME Global Standards in Basic Medical Education.

- **Peer Review**

The process described can be further developed by inclusion of evaluation and counselling from external peer review committees.

- **Combination of Institutional Self-evaluation and External Peer Review.**
WFME considers such a combination to be the most valuable method.
- **Recognition and Accreditation**
Depending on local needs and traditions, the guidelines can also be used by national or regional agencies dealing with recognition and accreditation of medical schools.

to fulfil - some or all of such standards should be documented by medical schools.
Fulfilment of these standards will vary with the stage of development of the medical schools, their resources and educational policy. Even the most advanced schools might not comply with all standards.

Standards for quality development are expressed by a »should«.

ANNOTATIONS are used to clarify, amplify or exemplify expressions in the standards.

THE WFME GLOBAL STANDARDS

DEFINITIONS

The WFME recommends the following set of global standards in basic medical education. The standards are structured according to **9 areas** with a total of **36 sub-areas**.¹

AREAS are defined as broad components in the structure, process and outcome of medical education and cover:

1. Mission and Objectives
2. Educational Programme
3. Assessment of Students
4. Students
5. Academic Staff/Faculty
6. Educational Resources
7. Programme Evaluation
8. Governance and Administration
9. Continuous Renewal

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

- **Basic standard.** This means that the standard must be met by every medical school and fulfilment 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 education. Fulfilment of - or initiatives

¹ WFME is aware of the complex interactions and links between the various areas and sub-areas.

3. WFME STANDARDS IN POSTGRADUATE MEDICAL EDUCATION: INTRODUCTION AND DEFINITIONS

HISTORY

WFME, since 1984, has conducted an "International Collaborative Programme for the Reorientation of Medical Education". Cornerstones in this process were the *Edinburgh Declaration*, 1988 (1), which was adopted by the World Health Assembly, WHA Resolution 42.38, 1989 (2), and the *Recommendations of the World Summit on Medical Education*, 1993 (3), reflected in WHA Resolution 48.8, *Reorientation of Medical Education and Medical Practice for Health for All*, 1995 (4).

To further promote change and innovation in medical education, WFME decided to extend implementation of its educational policy to the institutional level as described in a WFME Position Paper (1998) (5). The initial focus was on Basic (Undergraduate) Medical Education in medical schools (6,7).

The WFME project on "International Standards in Medical Education" (5), approved by the World Health Organisation (WHO) and the World Medical Association (WMA), has three main intentions:

- to stimulate authorities, organisations and institutions having responsibility for medical education to formulate their own plans for change and for quality improvement in accordance with international recommendations;
- to establish a system of national and/or international evaluation and recognition of medical educational institutions and programmes to assure minimum quality standards for the programmes;
- to safeguard practice in medicine and medical manpower utilisation, under conditions of increasing internationalisation, by specifying welldefined international standards in medical education.

In the position paper WFME indicated that similar provisions could be made in postgraduate medical education.

THE WFME PROJECT ON STANDARDS IN POSTGRADUATE MEDICAL EDUCATION

To extend its project on *International Standards in Medical Education* to postgraduate medical education, WFME in June 2001 appointed an International Task Force consisting of a Working Party and an Inter-

national Panel of Advisers, charged with defining global standards for educational programmes in Postgraduate Medical Education.

The deliberations of the Working Party, which met in Copenhagen in September 2001, were based on material from a number of sources (8-12). In its Report the Working Party defined a set of global standards in postgraduate medical education, designed to enable postgraduate medical training institutions at various stages of development, and with different educational, socio-economic and cultural conditions, to use the system of standards at a level appropriate to them. Emphasis is placed on standards functioning as a lever for change and reform.

The draft document was revised in the light of comments received from the International Panel of Advisers and from international conferences at which the results were presented.

The final document was adopted by the WFME Executive Council, September 2002.

FUNDAMENTALS OF POSTGRADUATE MEDICAL EDUCATION

Postgraduate medical education is the phase of medical education in which doctors develop competencies after completion of their basic medical qualification. This phase of training is usually conducted according to specified regulations and rules. The training has developed from a setting similar to apprenticeship, meaning that the young doctors work in e.g. clinical settings with more experienced colleagues who take the responsibility for their instruction and supervision.

Postgraduate medical education comprises pre-registration training, vocational/professional training, specialist and sub-specialist training and other formalised training programmes for defined expert functions.

In addition to the practical clinical aspects, further theoretical education is required. This can be organised in various ways, either closely connected with the clinical training or through regional, national or international theoretical courses. Such programmes may be managed by universities, specialist boards,

medical societies and colleges or institutes for postgraduate medical education.

Postgraduate medical education is part of the continuum of learning in medicine, which also includes Continuing Medical Education (CME) or Continuing Professional Development (CPD). CME/CPD are characterised by self-directed learning rather than supervised training. Although often used to designate the period commencing after completion of undergraduate or postgraduate training, it is evident that CME/CPD is a much more far-reaching activity throughout the continuum of medical education.

Internationally, there are considerable variations in the number of recognised specialties and expert functions in medicine and in the organisation, structure, content and requirements in postgraduate medical education. Qualification in expert functions is also obtained through CME. In some regions of the world, specialist training takes place through appointments in hospital departments/health care facilities extending over several years, whereas in other parts there are theoretical courses over shorter periods without specific requirements for practical training.

However, over the last decades there has been an increasing convergence in training methods with emphasis on both practical training and theory. Modern principles of medical education have exerted increasing influence in all countries. In postgraduate medical education highly sophisticated learning programmes have developed, the components of which are planned clinical/practical placements, expert supervision, theoretical teaching, research experience, systematic assessments and evaluation of the training programmes.

The convergence of principles of postgraduate training worldwide has been promoted by greater communication between universities/educational institutions, regulatory bodies, medical societies and medical associations. These again have been influenced by the greater mobility of medical doctors and the increasing internationalisation of the medical workforce, supported by international free trade agreements in various parts of the world, e.g. EU, NAFTA and MERCOSUR. The importance of this development for the medical profession is documented in Europe by the adoption of the Directive for Medical Doctors (13) and the work of the Advisory Committee on Medical Training of the European Commission (14). Thus the need for common international quality assurance systems in postgraduate medical education is strengthened.

CONCEPT, PURPOSE AND RATIONALE

International standards, which have general applicability for medical education, can be defined (5). These take account of the variations in content and process of medical education among countries, due to differences in teaching tradition, culture, socio-economic conditions, the health and disease spectrum, and different forms of health care delivery systems. Such differences can also occur within individual countries. However, the scientific basis of medicine and the endeavour to establish evidence for clinical practice is universal, and the task of medical education throughout its continuum everywhere is the provision of health care. Notwithstanding variations, there is an increasing degree of equivalence of structure, process and product of postgraduate medical education worldwide.

International standards, of course, must be modified or supplemented according to regional, national and institutional needs and priorities. Each country has the responsibility to ensure that its postgraduate medical training programme is supporting national health care delivery objectives.

WFME has also clearly emphasised that there can be no benefit in fostering uniformity of educational programmes (5). Moreover, quality assurance of medical training programmes must emphasise improvement and provide guidance for achieving such developments to avoid interpretation of standards as a leveling at a lower level of quality.

A central part of the WFME strategy is to give priority to specification of international standards and guidelines for medical education, comprising both institutions and their educational programmes. Adoption of international standards will constitute a new framework for authorities, organisations and institutions responsible for postgraduate medical education to measure themselves. Furthermore, internationally accepted standards could be used as a basis for national and regional recognition and accreditation of postgraduate educational programmes.

Evaluation based on generally accepted standards is an important incentive for improvement and for raising the quality of medical education, both when reorientation and reform are pursued, and also to promote continuous improvement and development.

Adoption of internationally accepted standards has the potential to provide a basis for national evaluation of postgraduate medical education as well as broader regional recognition.

Shared global standards in medical education will facilitate mobility of trainees, and ease the acceptance of medical doctors in countries other than those in which they are trained. Safeguarding competencies of doctors who have been educated in other countries will thereby be facilitated.

Finally, substandard training programmes can be improved by the use of a system of evaluation and accreditation based on internationally accepted standards, thus enhancing the quality of health care, both nationally and internationally.

PREMISES FOR POSTGRADUATE STANDARDS

The WFME Working Party applied the principles which were developed regarding basic medical education (6) to postgraduate medical education. Attention was focused on the general application of guidelines in quality development of medical education. Therefore, for international standards in postgraduate medical education to be generally accepted, the following premises were adopted:

- Only general aspects of postgraduate medical education and training should be covered.
- Standards should be concerned with broad categories of the content, process, educational environment and outcome of postgraduate medical education.
- Standards should function as a lever for change and reform.
- Standards are intended not only to set minimal global requirements but also to encourage quality development beyond the levels specified.
- Standards should be formulated in such a way that, in addition to respecting global core requirements, they will acknowledge necessary regional and national differences in the educational programme, and allow for different local, national and regional profiles and developments.
- Compliance with standards must be a matter for each community, country or region.
- Use of a common set of international standards does not imply or require complete equivalence of programme content and outcome of postgraduate medical education, but deviations should be clearly described and motivated.
- Standards should recognise the dynamic nature of programme development.
- Standards are formulated as a tool which authorities, organisations and institutions responsible for postgraduate medical education can use as a basis and a model for their own programme development.

- Standards should not be used in order to rank training programmes.
- Standards should be further developed through broad international discussion and consensus.
- The value of the standards must be tested in evaluation studies in each region.

Standards must be clearly defined, and be meaningful, appropriate, relevant, measurable, achievable and accepted by the users. They must have implications for practice, recognise diversity and foster adequate development.

USE OF STANDARDS

WFME holds that the set of international standards presented can be used globally as a tool for quality assurance and development of postgraduate medical education in the following ways:

• Self-evaluation of Programmes

The primary intention of WFME in introducing an instrument for quality improvement is to provide a new framework against which authorities, organisations and institutions with responsibility for postgraduate medical education can measure themselves in voluntary self-evaluation and self-improvement processes. The guidelines can thus be considered a Self-study Manual.

• Peer Review

The process described can be further enhanced by inclusion of evaluation and counselling from external peer review committees.

• Combination of Self-evaluation and External Peer Review.

WFME considers such a combination to be the most valuable method.

• Recognition and Accreditation

Depending on local needs and traditions, the guidelines can also be used by national or regional agencies dealing with recognition and accreditation of postgraduate medical education.

THE WFME GLOBAL STANDARDS

DEFINITIONS

Postgraduate Medical Education may be defined as the phase in which doctors train under supervision towards independent practice after completion of their basic medical qualification. It comprises pre-registration training, vocational/professional training, specialist and sub-specialist training and other formalised training programmes. Upon completion of a formal postgraduate training programme a degree, diploma or certificate is usually granted.

Although Postgraduate Medical Education is a time limited phase of medical education it cannot be clearly separated from Continuing Medical Education (CME) or Continuing Professional Development (CPD)¹. These are carried out during the entire professional life after graduation from the medical school and are characterized by self-directed learning and rarely involve supervised training for extended periods of time.

WFME recommends the following set of global standards in postgraduate medical education structured according to **9 areas** and **38 sub-areas**.²

AREAS defined as broad components in the structure, process and outcome of postgraduate medical education and training cover:

1. Mission and Outcomes
2. Training Process
3. Assessment of Trainees
4. Trainees
5. Staffing
6. Training Settings and Educational Resources
7. Evaluation of Training Process
8. Governance and Administration
9. Continuous Renewal

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

- **Basic standard.** This means that the standard must be met and fulfilment demonstrated during evaluation of the training programme.

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 postgraduate medical education. Fulfilment of - or initiatives to fulfil - some or all of such standards should be documented. Fulfilment of these standards will vary with the stage and development of the training programme, its resources, the educational policy and other local conditions influencing relevance and priorities. Even the most advanced programmes might not comply with all standards.

Standards for quality development are expressed by a “should”.

ANNOTATIONS are used to clarify, amplify or exemplify expressions in the standards.

¹ CPD refers to the continuing development of the multi-faceted competencies inherent in medical practice and drawn from various domains of knowledge and skills (e.g. medical, managerial, social, personal) needed for high-quality professional performance. Although often used to designate the period commencing after completion of postgraduate training, it is evident that CPD is a much more far-reaching activity. The shaping, reshaping and development of a professional - responding to changing societal and individual needs within the context of the evolution of medical science and health care delivery - is a life-long continuing process, starting when the student is admitted to medical school and on-going as long as the doctor is engaged in professional activities.

² WFME is aware of the complex interactions and links between the various areas and sub-areas.

4. WFME STANDARDS IN CONTINUING PROFESSIONAL DEVELOPMENT (CPD) OF MEDICAL DOCTORS: INTRODUCTION AND DEFINITIONS

HISTORY

WFME, since 1984, has conducted an "International Collaborative Programme for the Reorientation of Medical Education". Cornerstones in this process were the *Edinburgh Declaration*, 1988 (1), which was adopted by the World Health Assembly, WHA Resolution 42.38, 1989 (2), and the *Recommendations of the World Summit on Medical Education*, 1993 (3), reflected in WHA Resolution 48.8, *Reorientation of Medical Education and Medical Practice for Health for All*, 1995 (4).

To further promote change and innovation in medical education, WFME decided to extend implementation of its educational policy to the institutional level as described in a WFME Position Paper (1998) (5). The initial focus was on Basic (Undergraduate) Medical Education in medical schools (6,7), followed by Postgraduate Medical Education (8).

The WFME project on *International Standards in Medical Education* (5), approved by the World Health Organization (WHO) and the World Medical Association (WMA), has three main intentions:

- to stimulate authorities, organisations and institutions responsible for medical education to formulate their own plans for change and for quality improvement in keeping with international recommendations;
- to establish a system of national and/or international evaluation and recognition of medical education institutions and programmes to assure minimum quality standards for the programmes;
- to safeguard practice in medicine and medical manpower utilisation, under conditions of increasing internationalisation, by specifying well-defined international standards in medical education.

In the position paper WFME indicated that similar provisions could be made in the field of continuing medical education.

THE WFME PROJECT ON CPD STANDARDS

To further extend its project on *International Standards in Medical Education* to cover also the field of Continuing Medical Education (CME)/Continuing

Professional Development (CPD), WFME in December 2001 decided to appoint an International Task Force consisting of a small Working Party and an International Panel of Advisors, charged with defining global standards for this phase of medical education. The term CPD was later chosen by the Task Force to be used in this document (see page 10: Definitions).

The Working Party met in Oslo in January 2002. The deliberations of the Working Party were based on material from a number of sources (9-14). In the *Report of the Working Party* a set of global standards in CPD were defined, designed to enable medical doctors, the medical profession and relevant medical training institutions with different educational, socio-economic and cultural traditions and conditions to use the system of standards at a level appropriate to themselves. Emphasis is placed on standards functioning as a lever for change and reform.

The report from the Working Party was reviewed by the International Panel of Advisors meeting in Copenhagen October 2002. The various principles and definitions of CPD were debated, and extensive revision resulted in the present document.

The report from the Working Party had been adopted in principle by the WFME Executive Council at its meeting September 2002, and the final report was adopted December 2002.

In comparison with the two WFME documents on preceding stages of medical education, global standards in basic medical education and in postgraduate medical education, formulation of the document on CPD standards was strongly influenced by two characteristics of this phase of medical education: (a) When defining global standards in CPD, clear reference can not generally be made to specific institutions, such as medical schools in the case of basic medical education, and postgraduate institutes or other bodies responsible for postgraduate medical training; (b) The provision and utilization of CPD involves a number of agents, extending from the individual doctor to multinational CPD-providers. Their responsibilities and interactions are subject to great variation around the world, and their roles and competences are normally not well defined.

WFME has therefore identified the medical professional organisations as the bodies having main responsibility for the overall planning and coordination of CPD, including registration and documentation of CPD activities. The medical profession must have a strong influence on the organisation and implementation of CPD, which in no way denies the clear interests and roles in ensuring the quality of CPD of other organisations, institutions and agencies, and of health authorities and society.

FUNDAMENTALS OF CONTINUING PROFESSIONAL DEVELOPMENT

Definition

Continuing Professional Development (CPD) designates the period of education and training of doctors commencing after completion of basic medical education and postgraduate training, thereafter extending throughout each doctor's professional working life. However, CPD is a much more far-reaching activity throughout the continuum of medical education.

CPD, therefore, stands as a professional imperative of every doctor, and at the same time is also a prerequisite for enhancing the quality of health care. CPD differs in principle from the preceding two formal phases of medical education: basic medical education and systematic postgraduate medical training. Whereas the latter two are conducted according to specified rules and regulations, CPD mainly implies self-directed and practice-based learning activities rather than supervised training. As well as promoting personal professional development, CPD aims to maintain and develop competencies (knowledge, skills and attitudes) of the individual doctor, essential for meeting the changing needs of patients and the health care delivery system, responding to the new challenges from the scientific development in medicine, and meeting the evolving requirements of licensing bodies and society.

The former term Continuing Medical Education (CME) has been replaced by Continuing Professional Development (CPD). The new term reflects both the wider context in which this phase of medical education takes place, and signifies that the responsibility to conduct CPD rests with the profession and the individual doctor. Law and jurisdiction rarely regulate CPD. Where regulations do exist, these are flexible, even in countries demanding re-licensure or re-registration of doctors in practice.

Educational rationale

In order to practise appropriately throughout their professional life, doctors must remain up-to-date,

which entails engaging in some form of continuing education. To deliver the highest quality of patient care, the content of CPD must be directed towards enhancing roles and competencies (both clinical skills and theoretical knowledge), and organisation of work (team building and leadership), communication, medical ethics, teaching, research and administration.

Fundamental new knowledge in medicine transforms concepts and methods, and the medical profession must through adequate CPD incorporate new knowledge. Similarly, new ethical demands and socio-economic developments continually confront the medical profession, and challenge the individual doctor to assume new roles. The role of CPD in quality assurance and quality development of the health care delivery systems is increasingly significant.

Motivation for CPD, from the perspective of the individual doctor, derives from three main sources:

- The professional drive to provide optimal care for the individual patient;
- The obligation to honour the demands from employers and society;
- The need to preserve job satisfaction and prevent "burn out".

Motivation for life long learning should be a criterion for selecting students for admission to medical schools, and should be nurtured through all phases of medical education.

The best available evidence (15) suggests that effective CPD is characterised by the presence of three factors: a clear need or reason appears for the particular CPD to be undertaken; learning is based on such an identified need or reason; and follow-up provision is made for reinforcing the learning accomplished.

Needs assessment is therefore, in most cases, an integral component of successful CPD. Methods for identifying learning needs range from *formal assessments* (using tests of knowledge, skills and attitudes, peer review, systematic review of practice such as audit or significant event analysis), to the more common and equally effective ways that are part of *everyday clinical practice*: thinking about mistakes, reflecting on practice, receiving complaints and feedback, interacting with the team, etc.

Specifically identified needs should be the focus of CPD whenever possible; however, professional learning should also equip doctors to deal with unpredictable future clinical demands and thus relate to a broad base of knowledge and experience on which to draw, besides making up for deficiencies from past practice. Some CPD should be based on the general

professional need to explore, to develop and consider new areas of competence.

Whether the need identified is specific or general, the learning activities must be planned to be appropriate, and there must be a balance between general and specific CPD. The method of learning is less important than its relevance to the need, and could vary in different circumstances from reading, attending a lecture or a course, a peer-group meeting or a visit to an institution.

Following up on any learning undertaken reinforces such learning, and offers opportunities for disseminating and sharing such learning with others; beneficial alterations in methods of practice follow, and evaluation can be made of the extent of effectiveness of the CDP undertaken in relation to the original need or reason for it.

Although medical practice is sometimes depicted as routine and predictable, in actual fact doctors are required all the time to make judgements in complex and unpredictable situations, where high levels of uncertainty occur and where paradox is common. The unstated contract between doctors and the people they serve calls for a capacity to know what is "best" in any particular circumstance rather than what is "right" in some absolute sense. General oversight, improvisations and professional judgements are central to medical practice.

The various forms of knowledge which enable doctors to exercise their professional judgement include: formal or factual knowledge; procedural knowledge; and intuitive knowledge. Practical wisdom derives from a complicated amalgam of these various forms of knowledge. The link between doctors' knowledge and their practice is far from straightforward. New knowledge is not always directly applied to practice.

Generally doctors develop and change their practice through professional conversational exchanges and dialogue with colleagues rather than as a result of formal educational processes. Thus, the educational process necessary for effective clinical practice is one of continuous development rather than targeted, intermittent input. Doctors must learn about and from their practice through reflection and deliberation about their own and others' practice. It is through such an ongoing process that they identify and clarify their educational needs.

Much of this continuous development is informal and often unconscious. CPD is thus to some extent an

integral part of the practice of doctors worldwide, even in the remotest location without access to information technology or planned CPD activities.

The importance of conversations, informal as well as in more formal settings (peer review, case conferences, audit meetings) should be reflected in the working conditions available to doctors, over and above the accessibility to them of formal CPD activities such as courses.

Emphasizing the importance of informal CPD in no way minimizes how essential systematic formalised elements, such as courses, conferences, etc. are in effective CPD. A multi-faceted CPD system best fulfils all needs of doctors, taking account of differences in professional roles, needs and learning priorities.

Organisation and methods

The organisation of CPD varies hugely from country to country. A basic assumption is that the profession itself bears a major responsibility for CPD, with medical associations and other professional organisations functioning as major initiators, providers and promoters of CPD in many countries.

There are also numerous providers of CPD not directly accountable to the medical profession, including for-profit healthcare companies, the pharmaceutical/medical technological industry, consumer organisations, and for-profit CPD providers.

Formal CPD activities, which traditionally are teacher-conducted, are generally provided and supported by institutions such as medical schools/universities or postgraduate institutes, professional organisations, national or international scientific organisations, local or national health authorities or the pharmaceutical/medico-technical industry.

In some countries major institutes for CPD exist; some are privately run on a commercial basis, illustrating that education marketed as a purchasable commodity is growing. Other institutes are government run, and often provide systematic specialist (postgraduate) training in addition to CPD courses. National medical councils or academies are yet another model for provision and development of CPD. In some countries, e.g. France, elements of the labour market legislation are used to secure access to CPD for large numbers of doctors.

Opportunities to benefit from CPD on a day-to-day basis depend to a large extent on the working environment. Extreme contrasts are present. Work in a thriving clinical research environment, affording

stimulating contacts with colleagues, with ample resources to participate in international workshops, conferences etc. differs vastly from working in a rural area, in solo or in a small practice in the community. While information-technology can remedy some of the handicap of isolation, the stimulus from personal relations and communication with colleagues enhances participation in CPD.

Information technology and distance learning concepts are increasingly influencing the market of CPD.

The organisational variation in provision of CPD worldwide is also reflected in enormous differences in methods of funding CPD; the financial resources necessary for CPD are always to be perceived as part of the operational costs of the health care sector.

Evaluation and recognition

The educational outcomes of CPD are rarely tangible, let alone measurable. CPD does not always directly relate to current practice, but also extends the capacity of doctors to make wiser judgements in the situations of uncertainty they will certainly encounter in their professional future.

Differentiated systems have been developed which specify the level of acceptable CPD engagement. Medical professional organisations or licensing bodies have developed mechanisms of control, often legally applied, specifying *numbers of accredited CPD courses* or activities in which doctors are required to participate, the individual doctor obtaining CPD points.

The increasing concern that CPD of medical doctors should be adequate has led to demands for systematic *recertification* in some countries, entailing the development of systems for examination or other types of reassessment.

A new development in CPD focuses on monitoring individual daily learning activities. By use of personal *portfolio* or log-book for registration of CPD activities, and by comparison with similar results of colleagues, a tool is provided for planning an individual self-directed learning or for managing individual development. Doctors accountable to society must thus find means – such as realistic monitoring and documentation of CPD activities – to prove that they are capable of effective practice.

CONCEPT, PURPOSE AND RATIONALE OF GLOBAL STANDARDS

International standards for medical education, which have general applicability, can be defined (5). These definitions take account of the variations in content and process of medical education among countries, due to differences in teaching tradition, culture, socio-economic conditions, the health and disease spectrum, and the different forms of health care delivery systems. Similar differences can also occur within individual countries. Nevertheless, the scientific basis of medicine and the necessity to base clinical practice on evidence is universal; the task of medical education everywhere, throughout its continuum, is the provision of high quality health care. Notwithstanding variations, there is an increasing degree of equivalence of structure, process and product of medical education worldwide.

Global standards in CPD, as in other parts of medical education, of course must be modified or supplemented in accordance with regional, national and institutional needs and priorities. WFME has clearly emphasized that there can be no benefit in fostering uniformity of educational programmes and learning activities (5). Moreover, quality assurance of medical training programmes must give emphasis to *improvement*, and provide guidance for advancement, instead of advocating 'fulfilment of standards' as the ultimate goal.

A central part of the WFME strategy is to give priority to develop international standards and guidelines for medical education, that are supportive of the institutions concerned, their educational programmes, the medical profession, and the individual student and doctor. These international standards will constitute a *new framework*, serving as a yardstick against which those responsible for CPD can evaluate their own activities and organisations. Moreover, internationally accepted standards could be used as a basis for national and regional recognition and accreditation of educational programmes. At the individual level recognised global standards could guide and help medical doctors in planning their own CPD training programmes.

In drafting standards for CPD, the WFME Working Party applied the principles used in developing the international standards for basic medical education and for postgraduate medical education. Attention was given to the general application of guidelines in quality development of medical education. Therefore, for international standards in CPD to be generally accepted, the following premises were adopted:

- Only general aspects of CPD should be included.
- Standards should be concerned with broad categories of the content, process, educational environment and outcome of CPD.
- Standards should function as a lever for change and reform.
- Compliance with standards must be a matter for each community, country or region.
- Standards should be formulated in such a way as to acknowledge regional and national differences in the educational programme, and allow for different local, national and regional profiles and developments.
- Use of a common set of international standards does not imply or require complete equivalence of programme content and outcome of CPD.
- Standards should recognise the dynamic nature of programme development.
- Standards are formulated as a tool that the individual doctor, the medical profession and authorities, organisations and institutions responsible for CPD can use as a basis and a model for their own programme development.
- Standards should not be used in order to rank programmes.
- Although it is useful to define minimum requirements, the set of standards should emphasise the need for a dynamic approach involving a programme for continuous quality development.
- Standards should be further developed through broad international discussion and consensus.
- The value of the standards must be tested in evaluation studies in each Region.

Standards must be clearly defined, and be meaningful, appropriate, relevant, measurable, achievable and accepted by the users. They must have implications for practice, recognise diversity and foster adequate development.

Evaluation based on generally accepted standards is an important incentive for improvement and for raising the quality of medical education, both when reorientation and reform are pursued, and also to promote continuous improvement and development.

Shared global standards in medical education that are adhered to by the institutions and organisations concerned may facilitate mobility of medical doctors, and ease the acceptance of medical doctors in countries other than those in which they are trained.

Finally, substandard educational programmes can be substantially improved by the use of a system of evaluation and accreditation based on internationally

accepted standards, thereby enhancing the quality of health care, nationally as well as internationally.

USE OF STANDARDS

WFME holds that the set of international standards presented can be used globally as a tool for quality assurance and development of CPD in the following ways:

- **Participants in CPD**
The standards provide a new framework against which individual doctors and the medical profession can assess themselves in a voluntary self-evaluation and self-improvement process.
- **Providers of CPD**
The standards should form the basis for CPD providers in designing CPD activities.
- **Monitors of CPD**
Depending on local needs and traditions, the standards can also be used by national or regional agencies engaged in monitoring, recognition, and accreditation of CPD.

THE WFME GLOBAL STANDARDS

DEFINITIONS

CPD includes all activities that doctors undertake, formally and informally, in order to maintain, update, develop and enhance their knowledge, skills, and attitudes in response to the needs of their patients. Doctors are autonomous and independent, i.e. they act in the best interest of the patient without undue external influence. Engaging in CPD is a professional obligation but also a prerequisite for enhancing the quality of health care. The strongest motivating factor for continuous professional life-long learning is the will and desire to maintain professional quality.

CME describes continuing education in the field of knowledge and skills of medical practice; CPD, a broader concept, refers to the continuing development of the multi-faceted competencies inherent in medical practice, covering wider domains of professionalism (e.g. medical, managerial, social and personal subjects) needed for high quality professional performance. Although CPD designates the period commencing after completion of postgraduate training, CPD has much further ramifications. CPD activities have a basis in the life-long continuing process, starting when the student is admitted to medical school and continuing as long as the doctor is engaged in professional activities. The shaping, reshaping and development of a doctor involves responding to changing societal and individual needs, in the context of evolving medical science and health care delivery. Independence also is implicated, CPD activities being characterized by self-directed learning, only rarely involving supervised training for any extended period of time.

In this document the more comprehensive term CPD, of which the traditional CME is one component, has been chosen in the formulation of standards.

WFME recommends the following set of international standards in CPD structured according to **9 areas** and **36 sub-areas**.¹

AREAS defined as broad components in the structure, process and outcome of CPD cover:

1. Mission and Outcomes
2. Learning Methods
3. Planning and Documentation
4. The Individual Doctor
5. CPD-Providers
6. Educational Context and Resources
7. Evaluation of Methods and Competencies
8. Organisation
9. Continuous Renewal

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

- **Basic standard.** This means that the standard must be met and fulfilment demonstrated during evaluation of CPD.

Basic standards are expressed by a "must".

- **Standard for quality development.** The implication is that the standard is in accordance with international consensus about best practice of CPD. Fulfilment of - or initiatives to fulfil - some or all of such standards should be documented. Fulfilment of these standards will vary with the stage and development of CPD activities, their resources, the educational policy and other local conditions influencing learning priorities. Even the most advanced programmes might not comply with all standards.

Standards for quality development are expressed by a "should".

ANNOTATIONS are used to clarify, amplify or exemplify expressions in the standards.

¹ WFME is aware of the complex interactions and links between the various areas and sub-areas.

5. MEMBERS OF TASK FORCES OF THE WFME GLOBAL STANDARD PROJECT

The members of the three WFME Task Forces dealing with Basic Medical Education, Postgraduate Medical Education and Continuing Professional Development of Medical Doctors respectively are presented in a common list. Some members participated in more than one of the Task Forces. Furthermore, the complete endeavour of developing the Trilogy of WFME Standards in Medical Education shall be seen as one dynamic process building on results from previous Task Forces.

It should be emphasized that the development of the Trilogy of documents also benefited from other important contributions. These consisted of a great number of verbal and written commentaries as well as discussions at national and international meetings and conferences.

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