

## Ophthalmology Foundation International Guidelines for Accreditation of Ophthalmology Residency Training Programs

Accreditation is a review process that determines if educational programs meet defined standards of quality. When a program is accredited, it means that the program's curriculum and quality have been evaluated and judged to meet the standards of the profession.

The Ophthalmology Foundation (OF) strongly believes that accreditation of ophthalmology resident training programs is essential to ensure the quality of training, ophthalmologists' competence and ultimately delivery of the best eye care.

The process of program accreditation typically comprises a four-step cycle:

1. The training program completes a self-assessment questionnaire of their educational process, resources, strengths and weaknesses.
2. An external group reviews the self-assessment and conducts a site visit to verify the program's report.
3. An accrediting organization reviews the program's self-assessment and the site visit report to assure accreditation standards are met.
4. The accreditation process repeats at regular intervals.

The OF has created accreditation guidelines to help standardize ophthalmology residency training and to serve as a template for programs striving to improve and meet international standards. Our hope is that accreditation will lead to continuous program improvement, better ophthalmologists and ultimately achieve the OF's Vision of "A world where everyone has the opportunity to have the best possible vision and eye health."

The OF International Accreditation Guidelines were developed by adapting a template created by the World Federation for Medical Education (WFME) after reviewing existing ophthalmology national and regional guidelines.<sup>1-7</sup> The WFME evaluates nine primary areas each with sub-areas. Areas were defined as "broad components in the structure, process and outcome of postgraduate medical education and training" including:

- [1. Mission and Outcomes](#)
- [2. Educational Program](#)
- [3. Assessment of Trainees](#)
- [4. Trainees](#)
- [5. Trainers](#)
- [6. Educational Resources](#)
- [7. Program Evaluation](#)
- [8. Governance and Administration](#)
- [9. Continuous Renewal](#)

Sub-areas were defined as “specific aspects or dimensions of an area, corresponding to performance indicators.” The WFME guidelines have two levels of attainment: “Basic” (must have or do) and “Advanced (should strive to reach).”

Further explanation of Guideline terms can be viewed by clicking on text underlined in the document.

The goal of these guidelines is to provide basic and global standardization of ophthalmology training. We recognize that some programs do not expect every graduate to perform all types of ophthalmic surgery. For countries/programs where competence in surgical skill is required, the basic standards must be met. If only certain trainees are trained surgically, then the basic standards must be met for these trainees

Access Ophthalmology Foundation International Accreditation Program documents and information at: [ophthalmologyfoundation.org/accreditation](http://ophthalmologyfoundation.org/accreditation)

# 1. MISSION and OUTCOMES

## 1.1 MISSION

### Basic Standards (B):

The program must:

1. State the [mission](#) of the ophthalmology residency training program.
2. Make the mission [publicly](#) known to the health sector it serves.
3. Base the mission on:
  - a. Consideration of the health needs of the [community](#) or society.
  - b. The needs of the health care delivery system.
  - c. Other aspects of social [accountability](#), as appropriate.
4. Outline the program containing both theoretical and practice-based components, with emphasis on the latter, resulting in an ophthalmologist who is:
  - a. Competent to undertake comprehensive appropriate medical practice in ophthalmology.
  - b. Capable of working in a professional and ethical manner.
  - c. Able to work unsupervised and independently.
  - d. Able to work within a professional/interprofessional team when relevant.
  - e. Committed to and prepared for [life-long learning](#) and participation in continuing medical education/continuing professional development.
5. Ensure improvement of patient care that is appropriate, effective, [compassionate](#) and safe in dealing with health problems and promotion of health, including a patient-centered approach.
6. Ensure that [trainees](#) have appropriate working conditions to maintain their own health.

### Advanced standards (A):

The program should encourage:

1. Doctors to become [scholars](#) within their chosen field of medicine.
2. Doctors to become active participants in addressing social determinants of health.

## 1.2 PROFESSIONALISM & PROFESSIONAL AUTONOMY

### Basic Standards (B):

The program must:

1. Include [professionalism](#) in the education of doctors.
2. Foster professional [autonomy](#) to enable doctors to act in the best interests of the patient and community.

### Advanced standards (A):

The program should:

1. Ensure a collaborative relationship with the university, government, local regulatory bodies and national societies, while maintaining [appropriate independence](#) from them.
2. Ensure [academic freedom](#) (e.g., freedom of expression, inquiry and publication).

## 1.3 EDUCATIONAL OUTCOMES

Ophthalmology training should be competency based. Detailed competency-based models

have been published.<sup>3,8</sup> A brief synopsis of these models is given in [Appendix A](#). These models don't have to be specifically adopted but the general principles should be followed.

### **Basic Standards (B):**

The program must:

1. Define the intended [educational outcomes](#) of the program with respect to:
  - a. Achievements at a postgraduate level regarding knowledge, skills and attitudes.
  - b. Appropriate foundation for the future career of trainees in ophthalmology.
  - c. Future roles in the health sector.
  - d. Commitment to and skills in life-long learning.
  - e. The health needs of the community, the needs of the healthcare system and other aspects of social accountability.
  - f. Professional behavior.
  - g. [Generic and discipline/specialty-specific](#) components.
  - h. [Appropriate conduct](#) regarding patients and their relatives, fellow trainees, trainers and other health care personnel.
2. Ensure appropriate trainee conduct with respect to colleagues and other health care personnel, patients and their relatives.
3. Make the intended outcomes publicly known.

### **Advanced Standards (A):**

The program should:

1. Ensure interaction between [basic](#) and postgraduate education.

## **1.4 PARTICIPATION IN FORMULATION OF MISSION AND OUTCOMES**

### **Basic Standards (B):**

The program must:

1. State the mission.
2. Define the intended educational outcomes of the program in collaboration with [principal stakeholders](#).

### **Advanced Standards (A):**

The program should:

1. Base the formulation of mission and intended educational outcomes of the programs on input from [other stakeholders](#).

## **2. EDUCATIONAL PROGRAM**

### **2.1 FRAMEWORK OF THE PROGRAM**

Ophthalmic training must follow a systematic training program (curriculum with standardized clinical rotations).

### **Basic Standards (B):**

The program must:

1. Determine the educational [framework](#) based upon the intended educational outcomes.
2. Build its educational framework on the acquired outcomes of existing basic medical

education.

3. Organize the educational framework in a systematic and transparent way.
4. Use practice-based training involving the personal participation of the trainee in the services and responsibilities of patient care.
5. Use [instructional and learning methods](#) that are appropriate and ensure [integration of practical and theoretical components](#).
6. Deliver the program in accordance with [principles of equality](#).
7. Use a trainee-centered approach that stimulates, prepares and supports trainees to take responsibility for their own learning process and to reflect on their own practice.
8. Guide the trainee by means of supervision and regular appraisal and feedback.
9. Inform trainees about the program and the rights and obligations of trainees.
10. Include the commitment to ethical considerations in the program.

#### **Advanced Standards (A):**

The program should:

1. Increase the degree of independent responsibility of the trainee as skills, knowledge and experience grow.
2. Recognize gender, cultural and religious specifications and prepare the trainee to interact appropriately.

## **2.2 SCIENTIFIC METHOD**

#### **Basic Standards (B):**

The program must:

1. Introduce in the program the foundation and methodology of medical research, including clinical research and clinical epidemiology and statistics.
2. Ensure that the trainee:
  - a. Becomes able to use scientific reasoning.
  - b. Becomes familiar with [evidence-based medicine](#) through exposure to a broad range of relevant clinical/practical experience in different settings in ophthalmology.

#### **Advanced Standards (A):**

The program should:

1. Include formal teaching on critical appraisal of the literature and scientific data.
2. Adjust the content to scientific developments.

## **2.3 PROGRAM CONTENT**

#### **Basic Standards (B):**

The program must:

1. Include the practical clinical work and relevant theory to assure competence is met as described in [1.1 above](#).
2. Topics must include cataract; cornea and external disease; eyelid and lacrimal abnormalities; glaucoma; neuro-ophthalmology; ocular trauma; optics and general refraction; orbital disease and oculoplastics; pathology; pediatric ophthalmology and strabismus; systemic disease consults; uveitis; low vision; refractive surgery; and retinal/vitreous diseases. If relevant subspecialists are not part of the program, the

program must have [a mechanism](#) to assure competence in these areas (e.g. ocular oncology, ophthalmic genetics).

3. The program should also include instruction in basic biomedical, clinical, behavioral and social sciences and preventive medicine; clinical decision-making; communication skills, medical ethics, public health; medical jurisprudence and forensic medicine; managerial disciplines; patient safety and autonomy; doctors' self-care; [professionalism](#); the interface with complementary medicine.

#### **Advanced Standards (A):**

The program should:

1. Improve the content regarding knowledge, skills and attitudes related to the various roles of the ophthalmologist.
2. Adjust the content to changing contexts and needs of the health care delivery system.

## **2.4 PROGRAM STRUCTURE, COMPOSITION AND DURATION**

#### **Basic Standards (B):**

The program must:

1. Describe the [overall structure](#), composition and duration of the program.
2. State compulsory and optional components of the program.
3. Integrate practice and theory.
4. Ensure that minimum numbers and competence measures are met in programs where graduates are expected to perform surgical procedures. A list of procedures and recommended minimum numbers appears in [Appendix B](#). Measures of competence should include either surgical skill rubrics (OSCARs), complication rates, or final visual acuity data or some other measure of competency. Consider national regulations.
5. Provide adequate exposure to how local, national or regional health systems address the health care needs of populations.

#### **Advanced Standards (A):**

The program should:

1. Utilize and/or adapt national or international curricular standards as appropriate.<sup>3-8</sup>
2. In deciding on the duration of the program, take into consideration:
  - a. The acquired outcomes of basic medical education related to ophthalmology.
  - b. Requirements of the different roles of the trained doctor in the health sector.
  - c. Possible alternatives to the use of time-based definitions of education (e.g. outcome-based).

## **2.5 ORGANIZATION OF EDUCATION**

#### **Basic Standards (B):**

The program must:

1. Define responsibility and authority for organizing, coordinating, managing and evaluating the individual educational setting and process.
2. Include in the planning of the program appropriate representation of principal as well as other stakeholders.
3. Plan the education to expose the trainee to a broad range of experiences in the chosen field of medicine.

### Advanced Standards (A):

The program should:

1. Have a Program Director or Director of Education who is paid to oversee and coordinate training. (<https://ophthalmologyfoundation.org/wp-content/uploads/2022/07/ICO-Residency-Program-Director-Role-Description-May2014.pdf>.)
2. Ensure [multisite education](#) to gain adequate exposure to different aspects of ophthalmology.

## 2.6 THE RELATIONSHIP BETWEEN TRAINING AND SERVICE

### Basic Standards (B):

The program must:

1. Describe and respect the apprenticeship nature of professional development.
2. [Integrate training and service](#).
3. Ensure that training is [complementary](#) to and integrated with service demands.

### Advanced Standard (A):

The program should:

1. [Effectively organize](#) use of the capacity of the health care system for service-based training purposes.

## 3. ASSESSMENT OF TRAINEES

### 3.1 [ASSESSMENT METHODS](#)

### Basic Standards (B):

The program must:

1. Formulate and implement a policy of assessment of the trainees.
2. Define, state and publish the principles, purposes, methods, practices and periodicity for assessment of trainees, including specialist examinations where used.
3. Ensure that assessments cover knowledge, skills and attitudes and are both formative and summative.
4. Use a complementary set of assessment methods and formats according to their "[assessment utility](#)," including use of multiple assessors and multiple assessment methods. Assessment methods should include, at least, tests of medical knowledge, 360-degree evaluation, and observed patient care and direct observation of procedural skills (dops) (e.g OCEX, OSCAR available at [ophthalmologyfoundation.org/education/resources/#downloads](https://ophthalmologyfoundation.org/education/resources/#downloads)).
5. State the criteria for passing examinations or other types of assessment, including number of allowed retakes.
6. [Evaluate and document](#) the reliability, validity and fairness of assessment methods.
7. Use a system of appeal of assessment results based on principles of natural justice or due (legal) process.

### **Advanced Standards (A):**

The program should:

1. Encourage the use of examiners external to the training program.
2. Incorporate new internationally validated assessment methods where appropriate.
3. Record the different types and stages of training in a training logbook.
4. Establish a Quality Assurance Committee to oversee the planning.

## **3.2 RELATION BETWEEN ASSESSMENT AND LEARNING**

### **Basic Standards (B):**

The program must:

1. Use [assessment principles, methods and practices](#) that:
  - a. Are clearly compatible with intended educational outcomes and instructional methods.
  - b. Ensure that the intended educational outcomes are met by the trainees.
  - c. promote trainee learning.
  - d. Ensure adequacy and relevance of education.
  - e. Ensure timely, specific, constructive and fair feedback to trainees based on assessment results.
  - f. Encourage involvement of practical clinical work.

### **Advanced Standards (A):**

The program should:

1. Use assessment principles, methods and practices that:
  - a. Facilitate interprofessional education.

## **4. TRAINEES**

### **4.1 [ADMISSION POLICY](#) AND SELECTION**

#### **Basic Standards (B):**

The program must:

1. Consider the relationship between the mission of the program and selection of trainees.
2. Ensure a balance between the [education capacity](#) and the intake of trainees.
3. Formulate and implement a policy on
  - a. The [criteria and process](#) for selection of trainees.
  - b. Admission of trainees with disabilities requiring special facilities.
  - c. Transfer of trainees from other national or international programs.
4. Ensure a high level in understanding of basic and clinical sciences achieved at the undergraduate level before starting postgraduate education.
5. Ensure transparency and equity in selection procedures.

#### **Advanced standards (A):**

The program should:

1. Consider in its selection procedure specific capabilities of potential trainees to enhance the result of the education process in ophthalmology.



2. Include a mechanism for appeal against decisions related to admission and continuation.
3. Include trainees' organizations (if present) and other stakeholders in the formulation of the selection policy and process.
4. [Periodically review](#) the admission policy.

## 4.2 NUMBER OF TRAINEES

### Basic Standards:

The program must:

1. Set a maximum number of education positions that is proportionate to:
  - a. The clinical/practical training opportunities.
  - b. The capacity for appropriate supervision.
  - c. Other resources available.
  - d. Available information about the [health needs](#) of the community and society.
2. The [number of trainees](#) should be dictated in part to the available educational resources and capacity (e.g., faculty, patients, equipment.)

### Advanced Standards (A):

The program should:

1. Review the number of trainees through consultation with stakeholders.
2. Adapt the number of training positions, considering:
  - a. Available information about the number of qualified candidates.
  - b. Available information about the national and international market forces.
  - c. The inherent unpredictability of precise physician manpower needs in the various fields of medicine.

## 4.3 TRAINEE COUNSELING AND SUPPORT

### Basic Standards (B):

The program must:

1. Ensure access to a system for [academic counseling](#) of trainees.
2. Base the academic counseling of trainees on monitoring the progress in education including reported [unintended incidents](#).
3. Make support available to trainees, [addressing social, financial and personal needs](#).
4. Allocate resources for social and personal support of trainees.
5. Ensure confidentiality in relation to counseling and support.
6. Offer career guidance and planning.
7. Assure safety of trainees.

### Advanced Standards (A):

The program should:

1. Provide support in case of a [professional crisis](#).
2. Involve trainees' organizations in solving problematic trainee situations.

## 4.4 TRAINEE REPRESENTATION

### Basic Standards (B):

The program must:

1. Formulate and implement a policy on [trainee representation](#) and appropriate participation in the:
  - a. Statement of mission and intended educational outcomes.
  - b. Design of the program.
  - c. Planning of trainees' working conditions.
  - d. Evaluation of the program.
  - e. Management of the program.

### Advanced Standards (A):

1. The program should encourage trainees' organizations to be involved in decisions about education processes, conditions and regulations.
2. Encourage trainees to join local, national and/or international bodies such as young ophthalmologist or associate membership to the ophthalmology society.

## 4.5 WORKING CONDITIONS

### Basic Standards (B):

The program must:

1. Carry out the program by appropriately [remunerated posts/stipendiary positions](#) or other ways of financing for trainees.
2. Ensure participation by the trainee in all medical activities - including on-call duties relevant for the education.
3. Define and make known the [service conditions and responsibilities](#) of trainees.
4. Replace interruptions of training caused by pregnancy (including maternity/paternity leave), sickness, military service or supplement by additional training.
5. Define and make known mechanisms for trainees to lodge complaints or review requests in the event trainees need to make a complaint or request review of their competency/examinations or assessments.
6. Ensure that the [service components](#) of trainee positions are not dominating.
7. Provide a conducive learning environment with necessary facilities (computers, call rooms) and resources (library, wet lab).

### Advanced Standards (A):

The program should:

1. Consider the needs of the patients, continuity of care and the educational needs of the trainee in the structuring of duty hours and on-call schedules.
2. Allow part-time education under special circumstances, structured according to an individually tailored program and the service background.
3. Ensure that the total duration and quality of part-time education is not less than those of full-time trainees.

## 5. TRAINERS

### 5.1 RECRUITMENT AND SELECTION POLICY

#### Basic Standards (B):

The program must:

1. Formulate and implement a [recruitment and selection](#) policy for trainers, supervisors and teachers that specifies:
  - a. The expertise required, criteria for scientific, educational and clinical merit, including the balance between teaching, research and service qualifications.
  - b. Their responsibilities.
  - c. The duties of the training staff and specifically the balance between educational, research and [service functions](#).
2. In its selection policy take into account the mission of the program, the needs of the education system and the needs of the healthcare system.

#### Advanced Standards (A):

The program should:

1. In the formulation and implementation of its staff policy:
  - a. Recognize the responsibility of all physicians as part of their professional obligations to participate in the practice-based postgraduate education of medical doctors.
  - b. Reward participation in postgraduate education.
  - c. Ensure that trainers are current in the relevant field.
  - d. Ensure that trainers with a subspecialty function are approved for relevant specific periods during the education and for other periods of education dependent on their qualifications.
  - e. Reward participation in programs for developing their educational expertise.
  - f. Engage educational expertise in trainer development.

### 5.2 TRAINER OBLIGATIONS AND TRAINER DEVELOPMENT

#### Basic Standards (B):

The program must:

1. Ensure that trainers have [time for teaching, supervision and learning](#).
2. Provide faculty development of trainers and supervisors.
3. Ensure [periodic evaluation](#) of trainers to ensure:
  - a. They meet the required minimum duration of contact or teaching hours.
  - b. Each sub-specialty has an acceptable competency pass-rate.

#### Advanced Standards (A):

The program should:

1. In the formulation and implementation of its staff policy
  - a. Include in staff development support for trainers regarding teacher education and further professional development, both in their specialty and in educational expertise (e.g., mechanism for improving educational effectiveness - available at [ophthalmologyfoundation.org/courses/teaching\\_skills](http://ophthalmologyfoundation.org/courses/teaching_skills)).

- b. Appraise and recognize meritorious academic activities in functions as trainers, supervisors and teachers.
- c. Define a ratio between the number of recognized trainers and the number of trainees ensuring close personal interaction and monitoring of the trainee.

## 6. EDUCATIONAL RESOURCES

### 6.1 [PHYSICAL FACILITIES](#)

#### **Basic Standards (B):**

The program must:

1. Offer the trainee
  - a. Space and opportunities for practical and theoretical study.
  - b. Access to up-to-date professional literature.
  - c. Adequate information and communication technology.
  - d. Equipment for training in practical techniques ([APPENDIX C](#))
  - e. A [safe learning environment](#).
  - f. Provide facilities and a curriculum for simulated eye surgery (e.g., wet-lab).

#### **Advanced Standards (A):**

The program should:

1. Regularly update the physical facilities and equipment regarding their appropriateness and quality in relation to postgraduate education.

### 6.2 LEARNING SETTINGS

#### **Basic Standards (B):**

The program must:

1. Select and approve the [learning settings](#).
2. Have access to:
  - a. Sufficient clinical/practical facilities to support the delivery of learning.
  - b. An appropriate number of patients.
  - c. An appropriate case-mix of patients and patient materials to meet intended educational outcomes, including the use of outpatient (ambulatory) care and on-duty activity.

#### **Advanced Standards (A):**

The program should:

1. By the choice of learning settings ensure education:
  - a. In promotion of health and prevention of disease.
  - b. In hospitals (general hospitals and, when relevant, academic teaching hospitals) and in [community-based facilities](#).

### 6.3 INFORMATION TECHNOLOGY

#### **Basic Standards (B):**

The program must:

1. Ensure access to web-based or other electronic media.
2. Use information and communication technology
  - a. In an [effective, safe and ethical](#) way as an integrated part of the program.
  - b. For self-directed learning

#### **Advanced Standards (A):**

The program should:

1. Enable trainers and trainees to use existing and new information and communication technology for:
  - a. Communication with colleagues.
  - b. Accessing relevant patient data and health care information systems.
  - c. Patient/practice management.

### **6.4 CLINICAL TEAMS**

#### **Basic Standards (B):**

The program must:

1. Ensure experience of working in a team with colleagues and other health professionals.

#### **Advanced Standards (A):**

The program should:

1. Encourage learning in a multi-disciplinary/multi-professional team.
2. Promote development of ability to guide and teach other health professionals (e.g., medical students and Allied Ophthalmic Personnel).

### **6.5 [MEDICAL RESEARCH AND SCHOLARSHIP](#)**

#### **Basic Standards (B):**

The program must:

1. Assure the trainee achieves knowledge of and ability to apply the scientific basis and methods of ophthalmology.
2. Ensure adequate integration and balance between training and research.

#### **Advanced Standards (A):**

The program should:

1. Encourage trainees to engage in medical research and quality development of health and the health care system.
2. Provide sufficient time within the program for trainees to undertake research.
3. Give access to research facilities and activities in the training settings.
4. Strive to have trainees present research at regional or national meetings.

### **6.6 EDUCATIONAL EXPERTISE**

#### **Basic Standards (B):**

The program must:

1. Formulate and implement a policy on the use of [educational expertise](#) relevant in

- a. Program planning.
- b. Implementation of the program.
- c. Evaluation of the program.

### **Advanced Standards (A):**

The program should:

1. Pay attention to the development of expertise in educational evaluation and in research in the discipline of medical education.
2. Allow staff to pursue educational research interests.

## **6.7 LEARNING IN ALTERNATIVE SETTINGS**

### **Basic Standards (B):**

The program must:

1. Formulate and implement a policy on accessibility of individual trainees to education opportunities at alternative training settings within or outside the country.
2. Establish a system for the transfer of the results of education.

### **Advanced Standards (A):**

The program should:

1. Facilitate regional and international exchange of trainers and trainees by providing appropriate resources.
2. Establish relations with corresponding national or international bodies with the purpose of facilitating exchange and mutual recognition of education elements (e.g. curricula).

## **7. PROGRAM EVALUATION**

### **7.1 MECHANISM FOR [PROGRAM EVALUATION](#)**

### **Basic Standards (B):**

The program must:

1. Routinely [monitor](#) the program.
2. Establish and apply a mechanism for program evaluation.
3. In the evaluation address:
  - a. The mission, the intended as well as acquired educational outcomes, the educational program, trainee assessment, program providers and the educational resources.
  - b. The relation between the recruitment policy and the needs of the education and health systems.
  - c. Program process (curriculum).
  - d. Methods of assessment.
  - e. Progress of trainees.
  - f. Trainer qualifications.
  - g. Identified concerns.
  - h. Implement a program improvement plan where needed.
4. Ensure that relevant results of evaluation influence the program.

5. Involve principal stakeholders in evaluation.
6. Make the process and results of evaluation transparent to principal as well as other stakeholders.

**Advanced Standards (A):**

The program should:

1. Demonstrate that program evaluation has led to program improvement.

## 7.2 TRAINER AND TRAINEE FEEDBACK

**Basic Standards (B):**

The program must:

1. Seek annual [feedback](#) about programs from:
  - a. Trainers.
  - b. Trainees.
  - c. Employers.

**Advanced Standards (A):**

The program should:

1. Actively involve trainers and trainees in planning program evaluation and in using its results for program development.

## 7.3 PERFORMANCE OF GRADUATES

**Basic Standards (B):**

The program must:

1. Routinely monitor [performance of graduates](#).
2. Seek feedback on performance of graduates from post-graduate employers with one year of graduation.
3. Establish and apply a mechanism for program evaluation using collected data on performance of qualified doctors.

**Advanced Standards (A):**

The program should:

1. Inform about the results of the evaluation of the performance of graduates to those responsible for:
  - a. Selection of trainees.
  - b. Program planning.

## 7.4 INVOLVEMENT OF STAKEHOLDERS

**Basic Standards (B):**

The program must involve the principal stakeholders in its program for monitoring and evaluation.

**Advanced Standards (A):**

The program should, for other stakeholders:

1. Allow access to results of course and program evaluation.
2. Seek their feedback on the performance of doctors.
3. Seek their feedback on the program.

## 8. GOVERNANCE AND ADMINISTRATION

### 8.1 [GOVERNANCE](#)

#### Basic Standards (B):

The program must:

1. Ensure to be conducted in accordance with regulations concerning:
  - a. Admission of trainees (selection criteria and number).
  - b. Process of education and program administration aimed at improving
  - c. Assessment of trainees and program.
  - d. Intended educational outcomes.
2. Document [completion of education](#) by the issue of degrees, diplomas, certificates or other evidence of formal qualifications for use by both national and international authorities.
3. Be responsible for a program for quality development aimed at improving all aspects of the training program.

#### Advanced Standards (A):

The program should ensure:

1. [Transparency](#) of the work of governance and its decisions.
2. Adequacy of the program to the health needs of the population it serves.

### 8.2 [ACADEMIC LEADERSHIP](#)

#### Basic Standard (B):

The program must:

1. Take responsibility for the leadership/staff and organization of postgraduate medical education.

#### Advanced Standards (A):

The program should:

1. [Evaluate the leadership/staff](#) at defined intervals with respect to:
  - a. The mission of the program.
  - b. The acquired outcomes of the program.

### 8.3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION

#### Basic Standards (B):

The program must:

1. Define responsibility and authority for managing the [budgets](#) of the program.
2. Allocate the resources necessary for the implementation of the program and distribute the educational resources in relation to educational needs.

#### Advanced Standards (A):

The program should:



1. Manage the budget in a way that supports:
  - a. The service obligations of trainers and trainees.
  - b. Innovations in the program (e.g. quality improvement projects).

## 8.4 ADMINISTRATION AND MANAGEMENT

### Basic Standards (B):

The program must:

1. Have an [administrative and professional](#) staff that is appropriate to:
  - a. Support implementation of the educational program and related activities.
  - b. Ensure good [management](#) and resource deployment.

### Advanced Standards (A):

The program should:

1. Include an [internal program](#) of quality assurance of the management, including regular review.
2. Ensure that management submits itself to [regular review](#) to achieve quality improvement.

## 9. CONTINUOUS RENEWAL

### Basic Standards (B):

The program must:

1. Initiate procedures for regularly reviewing and updating the process, structure, content, outcomes/competencies, assessment and learning environment of the program.
2. Rectify documented deficiencies.
3. Allocate resources for continuous renewal.
4. Ensure that the process of renewal and restructuring leads to the revision of the policies and practices of postgraduate medical education programs in accordance with past experiences, present activities and future perspectives.
5. Address the following issues in its process of renewal:
  - a. Adaptation of their mission statement to the scientific, socio-economic and cultural development of the society.
  - b. Modification of the intended outcomes required at completion of postgraduate education in ophthalmology in accordance with documented needs of the community that the newly trained ophthalmologist will enter.
  - c. Adaptation of the learning approaches and education methods to ensure that these are appropriate and relevant.
  - d. Adjustment of the structure, content and duration of their program in keeping with developments in the basic biomedical sciences, the behavioral and 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 would ensure that new relevant knowledge, concepts, and methods are included and outdated ones discarded.
  - e. Development of assessment principles and methods according to changes in intended outcomes and instructional methods.
  - f. Adaptation of trainee recruitment policy, selection methods and trainee intake to changing expectations and circumstances, human resource needs, changes in

- the basic medical education and the requirements of the program.
- g. Adaptation of trainer, supervisor and teacher recruitment and development policy according to changing needs in postgraduate medical education.
  - h. Updating of training settings and other educational resources to changing needs.
  - i. Refinement of the process of program monitoring and evaluation.
  - j. Development of the organizational structure and of governance and management to cope with changing circumstances and needs in postgraduate medical education and, over time, accommodating the interests of the different groups of stakeholders.

**Advanced Standards (A):**

The program should:

1. Base the process of renewal on [prospective studies](#) and analyses and on results of local evaluation and the medical education literature.

## REFERENCES

1. World Federation for Medical Education. Postgraduate Medical Education – WFME Global Standards for Quality Improvement: The 2015 Revision. WFME Office: University of Copenhagen; 2015. Available at: <https://wfme.org/download/wfme-global-standards-for-quality-improvement-pgme-2015/> Last accessed: 16 September 2021.
2. *ICO Endorses Accreditation for Eye Care Training Programs*. International Council of Ophthalmology. February 2014. Available at: <https://ophthalmologyfoundation.org/wp-content/uploads/2022/10/ICO-Accreditation-Position-Paper-13February2014.pdf>
3. ACGME Common Program Requirements. Pgs 8-12. Available at: [http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs\\_2017-07-01.pdf](http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs_2017-07-01.pdf)
4. ACGME Program Requirements for Graduate Medical Education in Ophthalmology. Available at: <https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRResidency2021.pdf>
6. Requisitos recomendados por la PAAO para el Programa de Residencia Médica en Oftalmología. Available at: [https://www.campuspao.org/pluginfile.php/8701/mod\\_resource/content/1/PAAORecommendedProgramGuidelines\\_SPANISH\\_2013.pdf](https://www.campuspao.org/pluginfile.php/8701/mod_resource/content/1/PAAORecommendedProgramGuidelines_SPANISH_2013.pdf). Last accessed: 16 September 2021.
7. The CanMEDS 2015 Physician Competency Framework. Available at: <https://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e> .

## APPENDIX A

### Accreditation Council for Graduate Medical Education (ACGME - USA) Competencies<sup>3</sup>

1. Patient Care  
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
2. Medical Knowledge  
Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
3. Practice-Based Learning and Improvement  
Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.
4. Interpersonal and Communication Skills  
Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
5. Professionalism  
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
6. Systems-Based Practice  
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

### CanMEDS (The Royal College of Physicians and Surgeons of Canada)<sup>7</sup>

1. Medical Expert  
Integrates all of the roles described below. Applies medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centered care. It is the central physician Role in this Framework and defines the physician's clinical scope of practice.
2. Communicator  
Forms relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.
3. Collaborator  
Works effectively with other health care professionals to provide safe, high-quality, patient-centered care.

#### 4. Leader

Engages with others to contribute to a vision of a high-quality health care system and takes responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

#### 5. Health Advocate

Contributes their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.

#### 6. Scholar

Demonstrates a lifelong commitment to excellence in practice through continuous learning and by teaching others, evaluating evidence, and contributing to scholarship.

#### 7. Professional

Is committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behavior, accountability to the profession and society, physician-led regulation, and maintenance of personal health.

## APPENDIX B

Suggested minimum number of procedures completed by each trainee acting as the primary surgeon or assistant. Primary surgeon is defined as completing the majority of every essential step in a surgical procedure. These numbers are absolute minimums. Programs should aspire to higher numbers more likely to result in competence. These minimum numbers represent the minimum experience of any trainee being taught surgery.

PROCEDURE	MINIMUM
Cataract (MSICS or Phaco)	50
Glaucoma (trabeculectomy, Tube Shunt, MIGS)	10 (assist)
Strabismus (horizontal muscles)	10
Oculoplastic (lid laceration, chalazion, entropion, ectropion, ptosis, lacrimal system)	25
Laser - Yag Capsulotomy	15
Laser - Trabeculoplasty	5
Laser - Iridotomy	5
Laser - Pan-retinal Photocoagulation	10
Intravitreal injection	10
Pterygium	10
Globe trauma	5 (assist)
Corneal transplant	5 (assist)
Retinal Detachment	5 (assist)
Enucleation/Evisceration	5
Conjunctival/Corneal Foreign Body	10
Lid Tumor Biopsy	10
Suture Removal	10
Tarsorrhaphy	5
Subconjunctival/Subtenon Injection	10
Anesthetic blocks	10

## APPENDIX C: Required Equipment

COMMON CLINICAL EQUIPMENT	
Distance visual acuity chart	Stereopsis test
Children's vision chart	Worth 4-dot
Color vision test	Retinoscope
Flashlight	Indirect ophthalmoscope
Trial lens set	Slit lamp biomicroscopy lens (90D, 78D, 66D, etc)
Trial frames	Indirect + laser lenses, ophthalmoscopy lens (20D, 30D)
Direct ophthalmoscope	Gonioscopy lens
Slit lamp (at least 1 with observer scope)	Forceps to remove foreign bodies or stitches
Tonometer	Fluorescein, Rose Bengal, lissamine green
Exophthalmometer	Punctum dilators
Prism bars/loose prism sets	Tonometer tips to replace and clean

SPECIALIZED CLINICAL EQUIPMENT	SURGICAL EQUIPMENT
Fundus camera	Anterior vitrectomy machine
OCT	Posterior vitrectomy machine
Computerized perimeter	Microsurgical instruments
B-Scan ultrasound	Observer viewer
A-Scan ultrasound	Autoclave
Keratometer	Table
Laser Argon	Chair
Laser Yag	Microscope with viewing arm or screen
Observer viewer in Lasers	

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## APPENDIX D: Explanation of terms

### 1. MISSION and OUTCOMES

#### 1.1 MISSION

1 *Mission* provides the overarching frame to which all other aspects of the program must be related. The mission statement would include general and specific issues relevant to institutional, national, regional and, if relevant, global policy and health needs.

- The *program* would include local and national authorities or bodies involved in regulation and management of postgraduate medical education, and could be a national governmental agency, a national or regional board, a university, a college, a medical society, a hospital or hospital system, a competent professional organization or a combination of such providers with shared responsibility.

2 *Make the mission publicly known* means to make it known to the health sector as well as the general public.

- The *health sector* would include the health care delivery system, whether public or private, and medical research institutions.

3 Encompassing the *health needs of the community* would imply interaction with the local community, especially the health and health related sectors, and adjustment of the program to demonstrate attention to and knowledge about health problems of the community.

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4 *Social accountability* would include willingness and ability to respond to the needs of society, of patients and the health and health related sectors and to contribute to the national and international development of medicine by fostering competencies in health care, medical education and medical research.

5 *Life-long learning* is the professional responsibility to keep up to date in knowledge and skills through appraisal, audit, reflection, or recognised continuing professional development (CPD)/continuing medical education (CME) activities.

- *Continuing medical education (CME)* refers to life-long continuing education in the knowledge, skills and attitudes of medical practice.
- *Continuing professional development (CPD)* refers to life-long professional activities that doctors undertake, formally and informally, to maintain, update, develop and enhance their knowledge, skills and attitudes in response to the needs of their patients and their own personal development. CPD is a broader concept than CME.

6 *Compassionate care* would include awareness of patient and family aspects of matters related to irreversible disease outcomes.

7 *Trainees* refer to doctors in postgraduate education.

8 *Scholar* refers to an individual with deeper and/or broader engagement in the advancement of the discipline, including participation in academic development and advanced education and research in medicine.

- *Chosen field of medicine* would include recognised specialties, including general practice, subspecialties and expert functions. The formulation of the standards recognise that the number, designations and content of specialties, subspecialties and expert areas vary significantly from country to country.



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## 1.2 PROFESSIONALISM & PROFESSIONAL AUTONOMY

9 *Professionalism* describes the knowledge, skills, attitudes, and behaviors expected by patients and community from individual doctors during the practice of their medical profession and includes skills of lifelong learning and maintenance of competencies, information literacy, ethical behavior, integrity, honesty, altruism, empathy, service to others, adherence to professional codes, justice, and respect for others, including consideration of patient safety.

10 *Autonomy* in the patient-doctor relationship would ensure that doctors at all times make informed decisions in the best interest of their patients and the society, based on the best available evidence. Autonomy related to doctors' learning implies that they have some influence on decisions about what to learn and how to plan and carry out learning activities. It also implies access to the knowledge and skills doctors need to keep abreast in meeting the needs of their patients and the society, and that the sources of knowledge are independent and unbiased.

11 *Appropriate independence* will have to be defined according to principles for national regulations.

12 *Academic freedom* would include appropriate freedom of expression, freedom of inquiry and publication.

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## 1.3 EDUCATIONAL OUTCOMES

13 *Educational outcomes* or learning outcomes/competencies refer to statements of knowledge, skills and attitudes that trainees demonstrate at the end of a period of learning, i.e. the educational results. Outcomes might be either intended or acquired. Intended outcomes are often used for formulation of educational/learning objectives.

- The characteristics and achievements the trainee would display upon completion of the program might be categorized in terms of the roles of the doctor. Such roles would be (a) medical practitioner or medical expert, (b) communicator, (c) collaborator/team worker, (d) leader/manager or administrator, (e) health advocate, (f) scholar and scientist contributing to development and research in the chosen field of medicine, (g) teacher, supervisor and trainer to colleagues, medical students and other health professions, and (h) a professional.

14 *Generic components* would include all general aspects of Ophthalmology relevant for the function of the ophthalmologist.

- *Discipline/speciality specific components* refer to the knowledge, skills and attitudes of the chosen field of medicine as a speciality, subspeciality or expert function.

15 *Appropriate conduct* could presuppose a written code of professional and personal conduct.

16 *Basic medical education* refers to the basic (undergraduate) programs in medicine conducted by medical schools/medical faculties/ medical colleges or medical academies leading to outcomes at a basic level.

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## 1.4 PARTICIPATION IN FORMULATION OF MISSION AND OUTCOMES

17 *Principal stakeholders* would include trainees, program directors, medical scientific societies, hospital administrations, governmental authorities, other health care authorities and professional

associations or organizations as well as representatives of supervisors, trainers and teachers. Some principal stakeholders may be program providers as well.

18 *Other stakeholders* would include representatives of other health professions, patients, the community and public (e.g. users of the health care delivery systems, including patient organizations). Other stakeholders would also include other representatives of academic and administrative staff, medical schools, education and health care authorities, professional organizations and medical scientific societies.

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## 2. EDUCATIONAL PROGRAM

### 2.1 FRAMEWORK OF THE PROGRAM

19 *Framework of the program* refers to specification of the educational program, including a statement of the intended educational outcomes, the content/syllabus, experiences and processes of the program. Also, the framework would include a description of the planned instructional and learning methods and assessment methods.

20 *Instructional and learning methods* would encompass any didactic, participatory demonstration or supervised teaching and learning methods such as lectures, small-group teaching, problem-based or case-based learning, peer-assisted learning, practicals, laboratory exercises, bed-side teaching, clinical demonstrations, clinical skills laboratory training, field exercises in the community, web-based instructions and practical clinical work as a junior member of the staff.

21 *Integration of practical and theoretical components* can take place in didactic learning sessions and supervised patient care experiences as well as through self-directed and active learning.

22 *Delivery in accordance with principles of equality* means equal treatment of staff and trainees irrespective of gender, ethnicity, religion, political affiliation, sexual orientation or socio-economic status, and taking into account physical capabilities.

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### 2.2 SCIENTIFIC METHOD

23 *Evidence-based medicine* means medicine founded on documentation, trials and accepted scientific results.

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### 2.3 PROGRAM CONTENT

24 *Other mechanisms* might include virtual learning or trainees visiting other teaching institutions

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### 2.4 PROGRAM STRUCTURE, COMPOSITION AND DURATION

25 *Overall structure* would include the weekly/monthly schedule of the trainees.

- *Integration of practice and theory* would include self-, group- and didactic learning sessions and supervised patient care experiences.

[\(BACK\)](#)

## 2.5 ORGANIZATION OF EDUCATION

26 *Multi-site education* would imply the use of various settings characterized by size, patient categories, degree of specialization (e.g. primary, secondary and tertiary care), in-patient or out-patient clinics, etc.

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## 2.6 THE RELATIONSHIP BETWEEN TRAINING AND SERVICE

27 *Integrate training and service* means on the one hand delivery of proper health care service by the trainees and on the other hand that learning opportunities are embedded in service functions (on-the-job training).

28 *Complementary* means that training and service ought to be jointly planned and organized to enhance each other. This would be expressed in an affiliation agreement between the training providers and the service institutions.

29 *Effectively organize* refers to the use of different clinical settings, patients and clinical problems for training purposes, and at the same time respecting service functions.

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## 3. ASSESSMENT OF TRAINEES

### 3.1 ASSESSMENT METHODS

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30 *Assessment methods* would include consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between different types of examinations (written and oral), the use of normative and criterion-referenced judgements, and the use of personal portfolio and log-books and special types of examinations, e.g. objective structured clinical examinations (OSCE), 360-degree or multisource assessment tools, observed clinical evaluation tools, and surgical and procedural rubrics.

31 "*Assessment utility*" is a term combining validity, reliability, educational impact, acceptability and efficiency of the assessment methods and formats in relation to intended educational outcomes.

32 *Evaluation and documentation of reliability and validity of assessment methods* would require an appropriate quality assurance process of assessment practices. Evaluation of assessment methods may include an evaluation of how they promote education and learning.

### 3.2 RELATION BETWEEN ASSESSMENT AND LEARNING

33 *Assessment principles, methods and practices* refer to the assessment of trainee achievement and would include assessment in all domains: knowledge, skills and attitudes.

34 *Encouragement of integrated learning* would include consideration of using integrated assessment, while ensuring reasonable tests of knowledge of individual disciplines or subject areas.

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## 4. TRAINEES

### 4.1 ADMISSION POLICY AND SELECTION

35 *Admission policy* would imply adherence to possible national regulation as well as adjustment to local circumstances. If the program does not control the admission policy, the program would demonstrate responsibility by explaining to authorities the relationships and drawing attention to consequences, e.g. imbalance between intake and education capacity.

36 *Education capacity* refers to all resources needed to deliver the program, e.g. number of trainers, patients and facilities.

37 *Criteria for selection* may include consideration of balanced intake according to gender, ethnicity and other social requirements (socio-cultural and linguistic characteristics of the population), including the potential need of a special recruitment, admission and induction policy for minorities and doctors from underserved rural communities.

- The *process for selection of trainees* would include both rationale and methods of selection such as medical school results, other academic or educational experiences, entrance examinations and interviews, including evaluation of motivation for education in the chosen field of medicine.
- *Transfer of trainees* would include trainees from other types of education programs.

38 *Periodically review the admission policy* would be based on relevant societal and professional data to comply with the health needs of the community and society and would include consideration of intake to gender, ethnicity and other social requirements (socio-cultural and linguistic characteristics of the population), including the potential need of a special recruitment, admission, and induction policy for underprivileged trainees. The selection criteria should reflect the capability of trainees to achieve competencies and to cover the variations in required competencies related to the diversity of the chosen field of medicine.

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### 4.2 NUMBER OF TRAINEES

39 Decisions on the number of *trainees* would imply necessary adjustments to national and regional requirements for the medical workforce within the chosen field of medicine. If the program provider does not control trainee intake, it demonstrates responsibility when explaining relationships and drawing attention to problems, e.g. imbalance between intake and education capacity.

40 The *health needs of the community and society* would include consideration of intake according to gender, ethnicity and other socio-cultural and linguistic characteristics of the population, including the potential need of a special recruitment, admission and motivation policy for minorities and rural groups of doctors. Forecasting the health needs of the community and society for trained physicians includes estimation of various market and demographic forces as well as the scientific development and migration patterns of physicians.

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### 4.3 TRAINEE COUNSELING AND SUPPORT

40 *Academic counseling* would include advice on choice of postgraduate education program. Organization of counseling would include appointing academic mentors for individual trainees or small groups of trainees and should be conducted in collaboration with professional medical organizations.

41 *Unintended incidents* mean incidents potentially harmful to the patient.

42 *Addressing social, financial and personal needs* would mean professional support in relation to social and personal problems and events, housing problems, health problems and financial matters, and would include access to health clinics, immunization programs and health/disability insurance as well as financial aid services in forms of bursaries, scholarships and loans.

43 *Professional crisis* would include the result of involvement in malpractice or fundamental disagreement with supervisors or colleagues.

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#### **4.4 TRAINEE REPRESENTATION**

44 *Trainee representation* would include participation in groups or committees responsible for program planning and implementation at the local or national level.

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#### **4.5 WORKING CONDITIONS**

45 *Remunerated posts/stipendiary positions* refer to contractual service positions and would include internship, residency and higher specialist training.

- *Other ways of financing* would include payment of tuition through private means, loans or institutional support.

46 *Service conditions and responsibilities* would include appropriate supervision and limitation of risks to the safety of patient, trainees and trainers.

47 *The service components of trainee positions* would include clinical workload without further learning value, and would be subject to definitions and protections embodied in a contract.

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### **5. TRAINERS**

#### **5.1 RECRUITMENT AND SELECTION POLICY**

48 *Recruitment and selection policy* would include ensuring a sufficient number of highly qualified clinicians, health care managers and scientists to deliver the program.

49 *Service functions* would include clinical duties in the health care delivery system as well as participation in governance and management.

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#### **5.2 TRAINER OBLIGATIONS AND TRAINER DEVELOPMENT**

50 *Time for teaching, supervision and learning* would imply a balance between clinical workload and learning opportunities (e.g. training the trainer type learning) and would require coordination of work schedules.

51 *Evaluation of trainers* would include feedback from the trainee to the trainer.

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## 6. EDUCATIONAL RESOURCES

### 6.1 PHYSICAL FACILITIES

52 *Physical facilities* of the training location would include lecture halls, class, group and tutorial rooms, teaching and research laboratories, clinical skills laboratories, wet-lab, offices, libraries, information technology facilities and trainee amenities such as adequate study space, on-call accommodation, personal storage lockers and recreational facilities, where these are appropriate.

53 *A safe learning environment* would include provision of necessary information and protection from harmful substances, specimens and organisms, laboratory safety regulations and safety equipment.

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### 6.2 LEARNING SETTINGS

54 *Learning settings* would include hospitals with adequate mix of primary, secondary and tertiary services and sufficient patient wards and diagnostic departments, laboratories, ambulatory services (including primary care), clinics, primary health care settings, health care centers, hospices and other community health care settings as well as skills laboratories, allowing clinical training to be organized using an appropriate mix of clinical settings and rotations throughout all relevant main disciplines.

- *Patients* would include validated simulation using standardized patients or other techniques, where appropriate, to complement, but not substitute clinical training.

55 *Community-based facilities* would include primary health care centers or stations, speciality clinics, specialist practices, nursing homes and other facilities where healthcare is provided for a specific geographical area.

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### 6.3 INFORMATION TECHNOLOGY

56 *Effective use of information and communication technology* would include use of computers, cell/mobile telephones, internal and external networks and other means, as well as coordination with library services. 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.

- *Ethical use* refers to the challenges to both physician and patient privacy and confidentiality following the advancement of technology in medical education and health care. Appropriate safeguards would be included in relevant policy to promote the safety of physicians and patients while empowering them to use new tools.

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## 6.5 MEDICAL RESEARCH AND SCHOLARSHIP

57 *Medical research and scholarship* encompasses scientific research in basic biomedical, clinical, behavioral and social sciences. Medical scholarship means the academic attainment of advanced medical knowledge and inquiry. The medical research basis of the program would be ensured by research activities within the training settings or affiliated institutions and/or by the scholarship and scientific competencies of the trainer staff. Influences on current education would facilitate teaching of scientific methods and evidence-based medicine.

- Education in *scientific basis and methods* would include the use of elective research projects to be conducted by trainees.

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## 6.6 EDUCATIONAL EXPERTISE

58 *Educational expertise* would deal with problems, processes and practices of postgraduate medical education and assessment, and would include medical doctors with experience in medical education, educational psychologists and sociologists with experience in medical education. It can be provided by an education unit or be acquired from another national or international institution.

- *Research in the discipline of medical education* investigates theoretical, practical and social issues in medical education.

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## 7. PROGRAM EVALUATION

### 7.1 MECHANISM FOR PROGRAM EVALUATION

*Program monitoring* would imply the routine collection of data about key aspects of the program for the purpose of ensuring that the education is on track and for identifying any areas in need of intervention. The collection of data is often part of the administrative procedures in connection with admission of trainees, assessment and completion of the program.

59 *Program evaluation* is the process of systematically gathering information to judge the effectiveness and adequacy of the education program, using monitored data, collected feedback and results of special evaluation studies. This would imply the use of reliable and valid methods of data collection and analysis for the purpose of demonstrating the qualities of the education in relation to the mission and the intended and acquired educational outcomes. It would include information about average actual duration of education, scores, pass and failure rates at examinations, success- and dropout rates, as well as time spent by the trainees on areas of special interest.

- Involvement of external reviewers from outside the program and the institution as well as experts in medical education and evaluation and regulatory bodies would further broaden the quality of postgraduate education.
- Program process in this document is used synonymously with the curriculum model. It covers framework and content/syllabus.
- Identified concerns would include insufficient fulfillment of intended educational outcomes. It would use measures of and information about intended educational outcomes, including identified weaknesses and problems, as feedback to conduction of interventions and plans for corrective action, program development and improvements; this requires a safe and supporting environment for feedback by trainers and trainees.

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### 7.2 TRAINER AND TRAINEE FEEDBACK

60 *Feedback* would include anonymous trainees' reports and other information about the processes and products of the educational programs. It would also include information about malpractice or inappropriate conduct by trainers or trainees with or without legal consequences.

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## 7.3 PERFORMANCE OF GRADUATES

61 *Performance of qualified doctors* would cover long-term acquired outcomes and would be measured e.g. by results of national specialist examinations, benchmarking procedures, international examinations or career development. It would, while avoiding the risk of program uniformity, provide a basis for program improvement.

- *Qualified doctors* means doctors having completed postgraduate medical education.

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## 8. GOVERNANCE AND ADMINISTRATION

### 8.1 GOVERNANCE

62 *Governance* means the act and/or the structure of governing the program and the involved institutions. Governance is primarily concerned with policy making, the processes of establishing institutional and program policies and also with control of the implementation of the policies. The institutional and program policies would normally encompass decisions on the mission of the program, admission policy, staff recruitment and selection policy and decisions on interaction and linkage with medical practice and the health sector as well as other external relations.

63 *Completion of education* would -depending on the level of education -result in a doctor with the right to independent practice, including medical specialists or medical experts.

64 *Transparency* would be obtained by newsletters, web-information or disclosure of minutes.

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### 8.2 ACADEMIC LEADERSHIP

65 *Leadership/staff* refers to the positions and persons within the governance and management structures being responsible for decisions on professional matters in program implementation, teaching and assessment.

66 *Evaluate the leadership/staff* could involve consultation of external reviewers.

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### 8.3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION

67 *The educational budget* would depend on the budgetary practice in the country and would be linked to a transparent budgetary plan for the program.

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### 8.4 ADMINISTRATION AND MANAGEMENT



68 *Administrative and professional staff* in this document refers to the positions and persons within the governance and management structures being responsible for the administrative support to policy making and implementation of policies and plans and would - depending on the organizational structure of the administration - include head and staff in the program secretariat, heads of financial administration, staff of the budget and accounting offices, officers and staff in the admissions office and heads and staff of the departments for planning, personnel and IT.

69 *Management* means the act and/or the structure concerned primarily with the implementation of institutional and program policies including the economic and organizational implications, i.e. the actual allocation and use of resources in the program. Implementation of institutional and program policies would involve carrying into effect the policies and plans regarding mission, the program, admission, staff recruitment and external relations.

70 *Internal program of quality assurance* would include consideration of the need for improvements and review of the management.

71 *Regular review* would be conducted by institutional organizations external to and independent of the provider.

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## **9. CONTINUOUS RENEWAL**

72 *Prospective studies* would include research and studies to collect and generate data and evidence on country-specific experiences with best practice.

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