

International Organization for Medical Physics



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Accreditation of Medical Physics Residency Programs

PREFACE

Medical physics is an important discipline of science that uses physical principles, methods and techniques in practice and research for the prevention, diagnosis and treatment of human diseases with a specific goal of improving human health and well-being. According to IOMP Policy Statement No.1[1], medical physics may be classified into six sub-fields/specialties, namely (i) Radiation Oncology Physics, (ii) Medical Imaging Physics, (iii) Nuclear Medicine Physics, (iv) Medical Health Physics (Radiation Protection in Medicine), (v) Non-ionizing Medical Radiation Physics, and (vi) Physiological Measurement.

The environment surrounding healthcare is rapidly evolving and the technological innovation in application of radiation in medicine is also in progress. Adequately qualified and properly trained radiation professionals are therefore required for effective and safe use of radiation technology in human healthcare programme. Medical physicists are the radiation professionals with education and specialist training in the concepts and techniques of applying physics in medicine and they work in clinical, academic or research institutions. Thus, medical physicists are involved with the application of medical physics principles and techniques for prevention, treatment and diagnosis of human disorders, illnesses and disabilities, and the protection of the patients, staff and members of the public from ionizing and non-ionizing radiation hazards. The role and responsibilities of medical physicists may be oriented toward clinical service, management, education, and research and development.

Development of human resources related to medical physics is an important issue. Medical physicist working as health professional shall demonstrate competency in their discipline by obtaining the appropriate educational qualification and specialized clinical training in one or more sub-fields of this discipline. This document describes the IOMP accreditation standards and processes of medical physics residency program. Medical physics residents who will work in clinical environment as health professionals required accomplishment of the minimum levels of education and training in practical environment. These requirements for education and specialized training of medical physics resident are based on IOMP Policy Statement No. 2 [2] and recommendations and guidelines of other organizations such as ACPSEM, AAPM, CAMPEP, EFOMP and IAEA [3-11]. In addition, various other documents have also been referred by enlisting the specialty specific requirements including IAEA publications [12-14].

IOMP Accreditation of Medical Physics Residency Programs

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1. OBJECTIVES OF MEDICAL PHYSICS RESIDENCY PROGRAM

The objective of the medical physics residency program is to develop human resources as a professional medical physicist (Clinically Qualified Medical Physicists - CQMP) who is competent to participate actively in the individual clinical field independently. To accomplish this goal, adequate organization, facilities, staff, patient, and educational environments should be provided. The major outcome of the residency program should be to provide residents with clinical training in a hospital under certified/qualified medical physicists so as acquire the required practical skills and professionalism.

ACCREDITATION ORGANIZATION

The IOMP Accreditation Board consists of its Chair, the Vice-Chair and six members. All members of the IOMP Accreditation Board are prominent Medical Physicists with expertise in the education and training of medical physicists as well as in medical physics professional matters. The IOMP Accreditation Board is responsible for governance and management of medical physics residency program accreditations.

2. ACCREDITATION STANDARDS

Accreditation is a process of review of educational /training program that allows educational institute/training provider /healthcare organization to demonstrate that the training provided is of highest standards and meets the regulatory requirement. Medical physicists (MPs) working as health professionals and dealing with human beings wellbeing and therefore should demonstrate competency in their discipline by obtaining the appropriate educational qualification and clinical competency training in one or more sub-fields of medical physics. Basic knowledge of the other sub-fields is also required. MPs practicing in hospitals/clinical environments shall also participate in a continual professional development program. Following section outlines the general as well as specialty specific requirements for accreditation of residency program.

3. GENERAL REQUIREMENTS FOR ACCREDITATION

4.1 Institution and staff

The medical physics residency programme should be conducted in a clinical environment, having adequate infrastructure and the facilities to support resident education and training. The department/unit conducting the residency program must have obtained the necessary

permissions/approval from the University/Institute, Board of management whichever is applicable. The website of the institute should have all the details about the residency program such as the faculty, the facilities available for training including equipments, labs, and gadgets, library facility, number of seats, the stipend provided, accommodation/hostel facility, the selection criteria and procedure of selection. The website should also have the information about the residents who have completed the program and related records. The staff involved in teaching and training should have adequate training and experience. Equipment and instruments specific to the specialty concerned should be available. Library with adequate and recent books, journals, reports and other learning resources should be available & accessible to the residents. Specialty specific requirements are given in section 5.

4.2 Educational qualification of the resident

The minimum educational qualification for a medical physics resident is completion of a postgraduate program in medical physics or equivalent physical science subject as per IOMP/IAEA requirements [1, 11-14]. The suitability of an education/residency program could be established through the IOMP accreditation or suitable national or international validation/accreditation [9, 11].

4.3 Clinical training supervisor to resident ratio

Ideally, clinical training supervisor should be a CQMP and have at least 5 years of working experience in the specialty concerned and the supervisor to resident ratio should be 1:1. However, for a clinical training supervisor having more than 10 years of clinical experience in specialty two residents (i.e. the ratio of 1:2) may be enrolled under his/her supervision.

4.4 Duration of clinical training

The duration of clinical training should not be less than 2 years' full time equivalent for a given specialty. The training should be carried out under the direct supervision of a qualified/certified and well experienced medical physicist in the area of specialty who can be designated as clinical training supervisor of the resident. If a candidate desires to undergo the clinical training in two specialties in the same institution, the duration of the clinical training should not be less than 3 years full time equivalent.

4.5 Clinical training modules

The clinical training modules for each sub-specialty should be well-structured and designed

to provide the residents extensive hands-on experience on a comprehensive range of clinical physics work processes and services [3-14]. IAEA clinical training modules on radiation oncology physics [12], diagnostic radiology physics [13], and nuclear medicine physics [14] may be referred for designing clinical training modules. Training module should contain components of knowledge based learning as well as skilled based learning.

4.6. Selection Procedure

The selection of eligible candidates for the residency program should be open and on competitive basis so as to attract well deserved competent candidates in the program. The selection criteria and the process of selection be documented with the application form submitted.

4.7 Assessment of resident and certification

The competency based assessment approach should be adopted. The assessment should be on periodic basis and it should comprise written examination, practical examination as well as oral evaluations. The assessment rubrics may be designed for each module or sub-module and the assessment could be weighted as low stakes assessment and high stakes assessment. The purpose of comprehensive assessment is to ensure that the resident is able to work unsupervised in the area of specialty. The certificate for successful completion of clinical training should be signed by clinical training supervisor of the resident, programme director and head/chief/director of the respective department or institution.

4.8 Documentation and record keeping

Written guidelines for clinical training supervisor and residents should be prepared and documented. A structured log book should also be maintained by the resident. Records of all the completed training modules/sub-modules should be maintained for verification and till the issuance of clinical training completion certificate.

4. SPECIALTY SPECIFIC REQUIREMENTS FOR ACCREDITATION

5.1 RADIATION ONCOLOGY PHYSICS

4.1.1 Institution and staff

The programme should be conducted in a hospital/institution which has well equipped radiation oncology infrastructure and facilities and the responsible department may be either

medical physics department or radiation oncology department. At least two qualified medical physicists having clinical experience of at least 5 years in radiation oncology physics should be available. In addition, two radiation oncologists having more than 5 years of clinical experience should also be available.

5.1.2 Program director

There should be a program director responsible and accountable for ensuring that the residency program satisfies the IOMP policy statement No.2 and shall ensure that all the residents receive a high-quality clinical training. The program director must be qualified/certified medical physicist of at least 5 years of experience in the specialty of radiation oncology physics and responsible for recruiting residents into the program and advising and assessing the progress of the residents. The procedure and criteria of appointment of program director followed by the institute be given along with the application submitted for IOMP accreditation. To oversee and address the issues of the residency program such as regular assessment of the training, remedial measures for irregular, nonperforming/weak resident candidate and addressing the grievances of residents, a program committee be in place. The records of regular assessments, the job assignments, and log book of each resident be maintained.

5.1.3 Equipment and other resources

- A medical linear accelerator with electron and X-ray beams preferably with advanced treatment option (e.g. intensity modulated radiotherapy)
- A 3D treatment planning system (TPS)
- A radiotherapy simulator (conventional/ computed tomography simulator)
- A high dose rate remote afterloading brachytherapy device along with its TPS
- Medical imaging devices
- Dosimetry equipment for reference and relative dosimetry (cylindrical and plane parallel ionization chambers, radiation field analyzer, water/solid phantoms)
- Radiation survey meters

5.1.4 Clinical/Practical Training areas/topics

The clinical training in radiation oncology physics shall contain at least following elements/topics for better understanding of the theoretical topics learned during masters' programme and apply them in clinical practice:

- ✓ Anatomy and physiology as applied to Medical Physics in clinical practice
- ✓ Radiation Biology-in clinical situations
- ✓ Medical imaging fundamentals and application
- ✓ Radiotherapy equipment (treatment and imaging) and accessories
- ✓ Beam calibration and dosimetry practicals
- ✓ Daily, weekly, monthly and yearly required QA checks
- ✓ External beam treatment planning including IMRT
- ✓ Brachytherapy dosimetry and treatment planning
- ✓ Understanding of emergency situations like over exposure, source stuck-up, source loss or contamination and the protocols/procedure to handle and reporting
- ✓ Performance testing, acceptance and commissioning of beam and brachytherapy equipment
- ✓ Understanding about machines/equipment procurement, designing specifications, regarding tender/procurement process and maintenance
- ✓ Patient dosimetry methods
- ✓ In-vivo dosimetry and patient dose verification
- ✓ Radiation protection and safety including facility planning
- ✓ Understanding of radiation reactions, malfunctioning of radiation equipments, radiation emergency management
- ✓ Use of radiobiological models in clinical practice/various protocols
- ✓ Professional ethics
- ✓ Skill development and career planning

- ✓ Informatics
- ✓ Research Project

5.2 DIAGNOSTIC AND INTERVENTIONAL RADIOLOGY PHYSICS

5.2.1 Institution and staff

The programme should be conducted in a hospital/institution which has well equipped diagnostic and interventional radiology infrastructure and facilities and the responsible department may be either medical physics department or radiology department. At least two qualified medical physicists having at least 5 years of clinical experience in diagnostic and interventional radiology physics should be available. In addition, two radiologists having more than 5 years of clinical experience should also be available.

5.2.2 Program director

There should be a program director responsible and accountable for ensuring that the residency program satisfies the IOMP policy statement No.2 and shall ensure that all the residents receive a high-quality clinical training. The program director must be qualified/certified medical physicist of at least 5 years of experience in the specialty of diagnostic and interventional radiology physics and responsible for recruiting residents into the program and advising and assessing the progress of the residents. The procedure and criteria of appointment of program director followed by the institute be given in the application submitted. To oversee address the issues of the residency program such as regular assessment of the training, remedial measures irregular, nonperforming/ weak resident candidate and addressing the grievances of residents, a program committee be in place. The records of regular assessments, the job assignments and log book of each resident be maintained.

5.2.3 Equipment and other resources

- General X-ray units
- Fluoroscopic X-ray units
- Computed tomography (CT) scanner
- Interventional suite with at least one fluoroscopically-guided interventional system

- Mammography unit
- Dental radiology units
- Full set of QA and dosimetry systems and phantoms
- Radiation survey meters
- TLD/OSLD/ radiochromic film based radiation dosimetry systems

It is desirable to have following imaging equipment

- Medical diagnostic Ultrasound unit
- Dual energy X-ray absorptiometry (DEXA) unit
- Magnetic resonance imaging (MRI) unit

5.2.4 Clinical/Practical Training areas/topics

The clinical training in diagnostic and interventional radiology physics shall contain at least following elements/topics for better understanding of the theoretical topics learned during masters' programme and apply them in clinical practice:

- ✓ Anatomy and physiology as applied to Medical Physics in clinical practice
- ✓ Diagnostic and interventional radiology equipment in medical clinical practice
- ✓ Performance testing, acceptance and commissioning of radiology equipments
- ✓ Understanding calibration procedures of various radiation dosimeters such as TLD, OSLD, DAP meters and comparison of results with indirect estimations
- ✓ Patient and staff dose measurement, and reporting
- ✓ Image quality parameters, evaluation and addressing/overcoming the shortcomings.
- ✓ Quality management in radiology
- ✓ Radiology department planning and work flow
- ✓ Dosimetry in radiology
- ✓ Patient dose audit and optimization

- ✓ Radiation protection and safety
- ✓ Understanding about machines/equipment procurement, designing specifications, regarding tender/procurement process and maintenance
- ✓ Professional ethics
- ✓ Skill development and career planning
- ✓ Informatics
- ✓ Research project

5.3 NUCLEAR MEDICINE PHYSICS

5.3.1 Institution and staff

The programme should be conducted in a hospital/institution which has well equipped nuclear medicine infrastructure and facilities and the responsible department may be either medical physics department or nuclear medicine department. At least two qualified medical physicists having at least 5 years of clinical experience in nuclear medicine physics should be available. In addition, two nuclear medicine physicians having more than 5 years of clinical experience should also be available.

5.3.2 Program director

There should be a program director responsible and accountable for ensuring that the residency program satisfies the IOMP policy statement No.2 and shall ensure that all the residents receive a high-quality clinical training. The program director must be qualified/certified medical physicist of at least 5 years of experience in the specialty of nuclear medicine physics and responsible for recruiting residents into the program and advising and assessing the progress of the residents. The procedure and criteria of appointment of program director followed by the institute be given in the application submitted. To oversee address the issues of the residency program such as regular assessment of the training, remedial measures irregular, nonperforming/ weak resident candidate and addressing the grievances of residents, a program committee be in place. The records of regular assessments, the job assignments and log book of each resident be maintained.

5.3.3 Equipment and other resources

- A gamma camera
- Single photon emission computed tomography (SPECT) or PET-CT system
- Dose calibrator, probes and counters
- Phantoms and calibration sources
- Survey meters and contamination probes
- Nuclear medicine therapy facility

It is desirable to have access to

- Positron emission tomography (PET) or PET/CT.

5.3.4 Clinical/Practical Training areas/topics

The clinical training in nuclear medicine physics shall contain at least following elements/topics for better understanding of the theoretical topics learned during masters' programme and apply them in clinical practice:

- ✓ Anatomy and physiology as applied to Medical Physics in reference to nuclear medicine practice
- ✓ Physiological basis of isotope based imaging in clinical practice
- ✓ Understanding calibration procedures of various radiation dosimeters such as TLD, OSLD, Isotope calibrator and comparison of results with indirect estimations
- ✓ Patient and staff dose measurement, and reporting
- ✓ Understanding about machines/equipment procurement, designing specifications, regarding tender/procurement process and maintenance
- ✓ Daily, weekly, monthly and yearly required QA checks
- ✓ Understanding of emergency situations like source spillage, source loss or contamination, wrong isotope/wrong activity/wrong patient administration and the protocols/procedure to handle and reporting

Radioactivity measurements and internal dosimetry

Protocols and procedures for nuclear medicine imaging

Quality control of nuclear medicine equipments

Radionuclide therapy using unsealed sources

Clinical computing and networking

Preparation and quality control of radiopharmaceuticals

- ✓ Radiation protection and safety including the process of decontamination
- ✓ Professional ethics
- ✓ Skill development and career planning
- ✓ Informatics
- ✓ Research Project

5. ACCREDITATION PROCESS

The applicants (clinical training/residency program conducting institutions) must submit the completely filled application and supporting documents to the IOMP accreditation board for accreditation of their clinical training/residency program. The application form should include information on institution (institution and staff, program director, type and duration of the program, assessment process of resident and certification, availability of written guidelines for supervisor and resident- SOP) and elements of clinical training (practicum, equipment and resources). Additional details and the application form is available in appendix.

Steps of accreditation process are given below:

Step 1

Potential applicants (residency program conducting institutions) are encouraged to contact the Chair of the IOMP Accreditation Board via email to discuss in advance with details of their program and decide if IOMP accreditation is suitable for their program. IOMP does not charge for this discussion and there is no obligation to continue any further in the process.

Step 2

Residency program conducting institution submits the completed application form and the supporting documents to the Chair of the IOMP Accreditation Board via email. All information required must be in English. Additional information may be requested by the Chair. A fee is charged for each application to cover the costs of the accreditation process (see Section 10). Self-assessment is an important quality improvement tool and hence IOMP strongly encourages applicants to undertake a self-assessment preferably prior to application. The application form may be used as a guide for the self-assessment procedure.

Step 3

Upon receipt of the completed application form with applicable fee, the Chair of the IOMP Accreditation Board nominates an Assessment Team (AT) to assess the application. AT is composed of 3 members one of whom is designated as Lead Assessor (LA) by the Chair of the Accreditation Board. AT members must be experts in the specialty (a CQMP having at least 15 years of working experience including at least 5 years of experience in conducting the residency program in the specialty) for which accreditation is needed and external experts (not necessarily accreditation board member) of similar credentials could also be the AT members. LA coordinates the AT and communicates with the Chair. The Chair of the Accreditation Board communicates with applicants and maintains a record of all communications. The submitted application form will be reviewed to assess whether all information has been adequately provided. Applicants will receive a request from the LA / Chair for any missing information/document. AT will evaluate the application according to the standards and specialty specific requirements vis-a-vis IOMP Policy Statement No. 2, IAEA Training Course Series No. 56 and other IAEA publications (TCS 37, TCS 47 and TCS 50). The LA will draft the final report taking into consideration the assessment reports of the AT members and submit it to Chair.

Step 4

As soon as the submitted application has been reviewed and report submitted by LA to Chair is accepted for further processing, applicants will be notified of the date of site visit and the members of the AT conducting the site visit. It will be at the discretion of the Chair to select external experts if required in addition to AT who have assessed the application to visit the site of the applicant. The main purpose of the site visit is to verify the information provided in the application form and assess parameters that cannot be described adequately in written form (for example, assess equipment/instrument and other key facilities, meet supervisors/faculty members and staff,

resident/students and administrative officials, review the log book, work practice etc). Following the accreditation site visit, the LA will send a formal report to the applicant with comments and recommendations. The applicant will have 3 weeks within which to submit comments on the accuracy of the report. If no comments are received it will be assumed that the report is accurate. The AT will produce the final report taking into consideration any comments received from the applicant.

Step 5

The AT will submit the final assessment report with recommendations to the Chair of the IOMP Accreditation Board. The Chair will circulate the AT reports to members of the Accreditation Board for voting on the accreditation status of the applicant. The possible actions taken by the IOMP Accreditation Board are:

a) Initial accreditation: This action is levied to new programs which have made progress towards meeting IOMP Standards/requirements but have not graduated at least one batch of residents. Initial accreditation is valid for a period of 3 years. To maintain accreditation, these programs are required to submit annual reports during the 3 years of initial accreditation to provide evidence of progress toward meeting all Standards/requirements. These reports will be evaluated by the AT that assessed the application and performed the site visit of the program. The 3 years of initial accreditation may be extended to 5 years if adequate evidence of progress has been provided by annual reports. Programs that fail to submit an acceptable annual report will lose their status as a program enrolled in IOMP Accreditation.

b) Accreditation: This action is levied to a program that is fully operational. Accreditation is valid for a period of 5 years. Accredited programs are required to submit an annual report to update the IOMP Accreditation Board on any changes affecting the program, for example change in mission or goals of the program, considerable change in facility/supervisor and major changes in elements of clinical training, increase in number of seats/supervisors etc.

c) Probation: This action is levied to accredited programs that are subsequently determined not to be in compliance with the IOMP Standards/requirements. Reconsideration of a recommendation for probation is possible only when the applicant provides evidence documenting compliance with Standards/requirements. The program may only be on probation for up to 1 year and additional site visit is required to verify the compliance with Standards/requirements. Accordingly, an additional fee equivalent to the cost of a round trip air ticket and accommodation for 2 nights for 1 person is

required to be paid by the applicant.

d) Withholding accreditation: This action is levied to programs that are found to be non-compliant with IOMP Standards/requirements. The IOMP decision to withhold accreditation may be appealed. The applicant may apply again for accreditation when the program is considered to be in compliance with the IOMP accreditation standards/requirements.

Step 6

The Chair of the Accreditation Board submits the final report to the IOMP Executive Committee as an information item and notifies applicants of the outcome of the assessment for accreditation. Assuming the recommendation is approved, the Board will issue a certificate of accreditation.

7. RENEWAL OF ACCREDITATION

To maintain accreditation through IOMP, applicants must undergo a comprehensive re-evaluation. The re-evaluation process will be similar in every respect to initial evaluation. A fee is charged for each application to cover the costs of the re-accreditation process. The renewal process is initiated at least 6 months prior to the expiration date of current accreditation. Re-accreditation is valid for a period of 5 years.

8. APPEAL OF AN ACCREDITATION DECISION

An applicant that is the object of an adverse decision might wish to appeal that decision to the Board. Appeals must be submitted to the Chair in writing and within 30 days of receiving the decision about the accreditation. The Chair of the Accreditation Board appoints an Appeals Committee (AC) consisting of a Chairman, an Accreditation Board member and an IOMP Executive Committee member. AC does not include members of the AT that took the initial action being appealed. AC prepares a written report within 30 days after the date of the submission of the appellant's appeal that describes its findings and action taken on the appeal. AC submits that report to the Accreditation Board. The accreditation board takes decision by majority and decision of the accreditation board is final. The Chair will inform the appellant of the outcome of the appeal giving reasons for the decision. Applicants that choose to appeal a decision will pay a fee of USD 1000 to cover the cost.

9. PUBLIC AND CONFIDENTIAL INFORMATION ABOUT APPLICANTS

Names, contact information and accreditation status of accredited medical physics residency

providers is considered public information and may be released by the IOMP Accreditation Board. The Board will maintain as confidential information the minutes of the Board meetings, information submitted to the Accreditation Board by the applicant and correspondence between AT and the applicant relating to the accreditation process.

10. FEES FOR ACCREDITATION OF RESIDENCY PROGRAM

The fee payable to IOMP for accreditation and re-accreditation of residency program is as follows:

- (i) USD 3000 for one specialty of a hospital/institution
- (ii) USD 5000 for two specialties of a hospital/institution at a time
- (iii) USD 7000 for three specialties of a hospital/institution at a time

In addition, the applicant should pay the cost of return air tickets of 2 AT members and cost of accommodation for 2 nights for 2 persons for accreditation in one specialty (e.g. Radiation Oncology Physics). For accreditation of residency program in more than one specialty in the same hospital/institute, on-site assessment will be planned in one trip by a pair of assessors to save the travel cost. However, the cost of accommodation for 3 to 4 nights for 2 persons should be paid by the applicant.

The fee will be on a sliding scale based on UN determinations of per capita income, the exact formula being specified by the Finance Committee and approved by the Council.

REFERENCES

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- [9] ACPSEM Training, education and assessment program for medical physics and radiopharmaceutical science, 2017.
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- [12] International Atomic Energy Agency, Clinical Training of Medical Physicists Specializing in Radiation Oncology Physics, TCS 37, IAEA, Vienna, Austria, 2009.
- [13] International Atomic Energy Agency, Clinical Training of Medical Physicists Specializing in Diagnostic Radiology, TCS 47, IAEA, Vienna, Austria, 2010.
- [14] International Atomic Energy Agency, Clinical Training of Medical Physicists Specializing in Nuclear Medicine, TCS 50, IAEA, Vienna, Austria, 2013.

ABBREVIATION AND ACRONYMS

AAPM : American Association of Physicists in Medicine

AC : Appeals Committee

AT : Assessment Team

CQMP : Clinically Qualified Medical Physicists

CT : Computed tomography

DEXA : Dual energy X-ray absorptiometry

HHS : Human Health Series

IMRT : Intensity modulated radiation therapy

IAEA : International Atomic Energy Agency

IOMP : International Organization for Medical Physics

LA : Lead Assessor

MP : Medical physicist

MRI : Magnetic resonance imaging

PET : Positron emission tomography

QA : Quality Assurance

SPECT : Single photon emission computed tomography

TCS : Training Course Series

TPS : Treatment planning system

UN : United Nations



IOMP ACCREDITATION BOARD

Application Form for Accreditation of Medical Physics Residency Program

Date of Application:
Name, address, website and email of institution organizing the program:
General information about the institution such as available Departments facilities, type of medical services, number of patients in the specialty of medical physics residency:
Details of learning resources accessible to residents such as library [list of relevant books and learning resources for the program] and other resources:
Specialty of the residency program to be accredited:
Name, professional status (specialty, qualification and experience), and email of the program director:
Details of responsible department(s) for conducting the program:

Duration of the program:
Aims and objectives of the residency program:
Minimum entry qualification of the residents to be enrolled:
Number of residents to be enrolled per batch:
Provide details about the selection of residency candidates and Steering committee overseeing the entire process and execution
Details of Clinical training supervisors and their professional status (position, affiliation, qualifications, specialty):
Details of equipment (make and model, and other technical details) and other resources available for use in the clinical training:

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Details of main elements and sub-elements of training modules (attach a copy of the clinical training guide prepared for the residents):

**Whether instruction manual for clinical training supervisor is available?
(If yes, please attach a copy)**

Details of the assessment process, passing criteria and certification process for completion of clinical training (please attach separate sheet if required)

Whether the residency program complies with IOMP requirements? Give the details and justification (please see IAEA TCS 37, 47, 50 and 56):

Please provide list of titles of the research papers/abstracts, published by the residents (attach a copy)

Provide details of alumni residents

Describe the method of evaluating the quality of the program, the satisfaction of the participants and the faculty (attach an extra sheet if required):

Additional information which gives special features of the residency program not indicated so far (attach an extra sheet, if required)

Have you applied to any other accreditation body to have this program accredited? If yes, to whom and what was the outcome and the reason if the application was not approved.

Name and Signature of applicant:

Date: