

# AFOMP Policy Statement No. 3: recommendations for the education and training of medical physicists in AFOMP countries

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**Abstract** AFOMP recognizes that clinical medical physicists should demonstrate that they are competent to practice their profession by obtaining appropriate education, training and supervised experience in the specialties of medical physics in which they practice, as well as having a basic knowledge of other specialties. To help its member countries to achieve this, AFOMP has developed this policy to provide guidance when developing medical physicist education and training programs. The policy is compatible with the standards being promoted by the International Organization for Medical Physics and the International Medical Physics Certification Board.

**Keywords** Education · Training · Medical physicists · Residents · Certification

## Introduction

The Asia-Oceania Federation of Organizations for Medical Physics (AFOMP) was founded during the World Congress on Medical Physics and Biomedical Engineering in Chicago in July 2000. The current membership includes sixteen national organizations which together represent about 3000 medical physicists. AFOMP was officially inaugurated and admitted by IOMP as one of its Regional Chapters in 2000.

The formation of AFOMP aims to provide a solid platform for closer collaboration and mutual support amongst the medical physics organizations in the Asia and Oceania regions for the primary purpose of promoting the advancement of medical physics and related scientific

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activities and the development of the standard of practice and professional status of the medical physicists. To help achieve these goals and objectives, AFOMP has established three committees, namely Professional Development Committee (PDC), Education and Training Committee (ETC) and Scientific Committee (SC) to work on a number of important tasks. Among them are drafting of a set of policy statements which give recommendations and guidelines on issues such as the definitions on the roles and responsibility of medical physicists, their professional and quality standards, and the standard and structure of education and training of medical physicists. This policy statement, which is the third of a series of documents being prepared by the joint efforts of the Committees, gives guidance as to how medical physicists in Asia-Oceania should be educated and trained to practice independently as qualified, competent and safe professionals in their chosen specialization or specializations. The minimum standards required for on-going education and training of clinical medical physicists throughout their career is also addressed.

This Policy should be read in conjunction with AFOMP Policy Statement No. 1: The role, responsibilities and status of the clinical medical physicist in AFOMP [1].

This Policy has been formulated to be compatible with the requirements of the IOMP Policy Statement No. 2 Basic Requirements for Education and Training of Medical Physicists [2].

### The education and training of medical physicists

Clinical medical physicists should demonstrate that they are competent to practice their profession by obtaining appropriate education, training and supervised experience in the specialties of medical physics in which they practice, as well as having a basic knowledge of other specialties. This should initially be achieved through academic education and in-service training, preferably as a formal residency under the authority of a medical physics association/professional body. This should be followed throughout the physicist's career by participation in continuing professional development.

### Formal education requirements

The minimum initial educational qualification for a clinical medical physicist should be a bachelor degree in physics or a degree in a relevant physical science or engineering subject from an accredited university.

This should be followed by the successful completion of a postgraduate program at master's degree level in medical

physics or an equivalent degree in an appropriate physical science subject from an accredited university [1].

### Professional training

Clinical medical physicists should receive clinical competency training, preferably in the form of a formal residency or an equivalent clinical training program, for a period appropriate to their roles and responsibilities. In those countries in which a medical physics association/professional body operates a physicist certification system, medical physicists should receive their clinical training under the direction of that program.

The duration of clinical competency training should be not less than two years full-time equivalent. The training should be carried out under the supervision of a clinical medical physicist who has been certified by a medical physics association/professional body or a body that it sponsors to administer a certification scheme, or a qualified professional with an equivalent level of professional experience and expertise.

The period of training in specialties additional to the first that a physicist qualifies in should be not less than one year full-time equivalent.

The clinical training program for each specialty should be well-structured and designed to provide the trainee with extensive hands-on experience in a comprehensive range of clinical physics work processes and services.

References [3], [4] and [5] provide suggested appropriate syllabi for such structured clinical training.

### Professional certification

Medical physicists practicing in medical institutions or those with clinical responsibilities should be certified by a medical physics association/professional body or a body that it sponsors to administer a certification scheme.

To become qualified as a Certified Medical Physicist (CMP), a physicist should have completed the formal education requirements and a program of clinical training as specified in “[Formal education requirements](#)”, “[Professional training](#)” sections above, and have undergone a formal assessment process of written and oral examinations.

Medical physics associations/professional bodies or health competent authorities should establish their own professional certification systems to facilitate such process. In countries where the establishment of such a national certification system is impractical, considerations should be made to have their MPs certified by an appropriate external certification body from another country. To ensure that an

appropriate level of professional standard can be achieved and maintained, national certification systems should be subject to appropriate quality audits. This could be achieved through an independent accreditation process conducted by a well-established national or international certification or accreditation body.

A professional competency maintenance scheme should be implemented for CMPs who have clinical responsibilities. This could be in the form of re-certification after an appropriate period of time and/or participation in a mandatory Continuing Professional Development (CPD) program as described in “[Continuing Professional Development](#)” section below.

### **Continuing professional development**

Each clinical medical physicist should participate in continuing professional development and maintain a record of their CPD activities. Medical physics associations/professional bodies should establish and maintain their own national CPD systems to support the continuing professional

development of their members. In countries in which establishment of such a CPD system is impractical, arrangements should be made for the medical physicists to enter a well-established external CPD system. Detailed recommendations on CPD are given in AFOMP Policy No 4: Recommendations for Continuing Professional Development Systems in AFOMP Countries.<sup>1</sup>

### **Implementation**

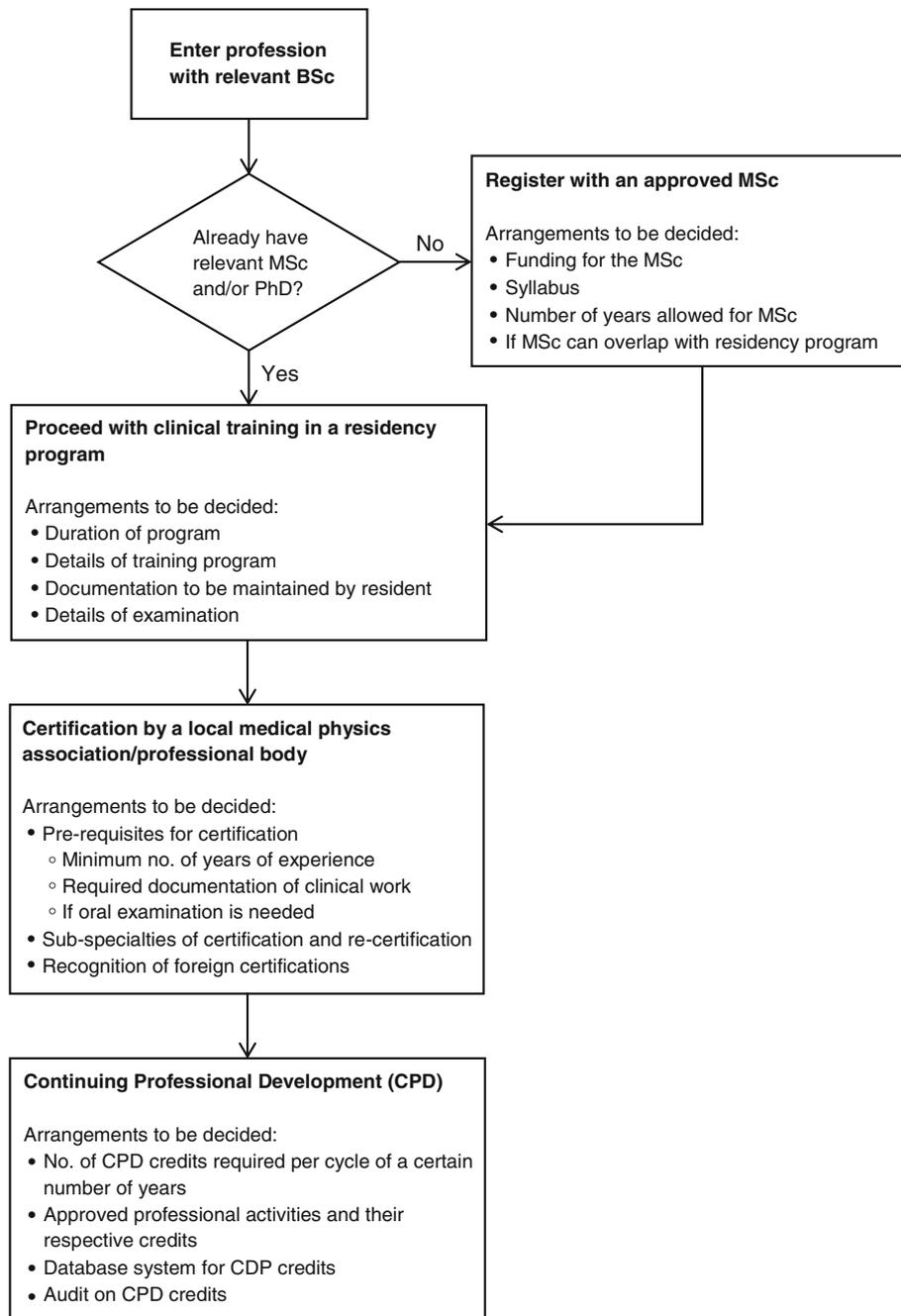
This document gives recommendations on the minimum requirements for education and clinical training of medical physicists. AFOMP member organizations have the responsibility to establish the appropriate infrastructures in their own countries to achieve and maintain such quality standard in the education and training of their medical physicists. AFOMP member countries are encouraged to establish systems for the formal licensing of clinical medical physicists. Such physicists should be certified or have education and experience equivalent to that of a CMP.

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<sup>1</sup> AFOMP Policy No 4: Recommendations for Continuing Professional Development Systems in AFOMP Countries will be developed by the AFOMP Professional Development Committee following approval of this Policy by the AFOMP Executive.

## Appendix

An example pathway to becoming a professional medical physicist. Arrangements are to be decided by the local medical physics association/professional body .



## References

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