

An International System for the Certification of Medical Physicists

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Origins of the International Medical Physics Certification Board

- ♦ The IOMP established a Task Group to investigate formation of an International Certification Board in early 2009
- ♦ Goal was to improve the quality of clinical medical physicists and the profession



International Medical Physics Certification Board (IMPCB)

- ♦ Established on May 23, 2010
- ♦ 11 Charter Members – ABFM, ACMP, ACPSEM, CSMP, CSMPT, FMOFM, HKAMP, IMPS, KSMP, LAMP, and NAMP
- ♦ 1 Observing Member – JSMP
- ♦ Model certification program adopted 2011
- ♦ By-Laws adopted 2012
- ♦ Officers elected to take office January 2014

IMPCB Board of Directors

- ♦ President: Colin Orton
- ♦ Chief Executive Officer: Raymond K. Wu
- ♦ Secretary General: Ti-Chuang (Timothy) Chiang
- ♦ Registrar and Chair of Records Committee: Tae Suk Suh
- ♦ Chief Examiner and Chair Accreditation Committee: Tomas Kron
- ♦ Treasurer: Alejandro Rodriguez Laguna
- ♦ At-Large Board Members: Ervin B. Podgorsak, Xiance Jin, Siyong Kim, Kin Yin Cheung
- ♦

The objectives and purposes of the Board

- ♦ To establish minimum standards and improve the practice of medical physics
- ♦ To develop standards and procedures for the certification of medical physicists
- ♦ To establish the infrastructure, requirements and assessment procedures for the accreditation of medical physics certification programs

The objectives and purposes of the Board (cont'd.)

- ♦ To establish and evaluate qualifications of candidates requesting examination for certification in the field of medical physics
- ♦ To arrange, and conduct examinations to test the competence of candidates for certification in the field of medical physics
- ♦ To grant and issue certificates in the field of medical physics to applicants who have been found qualified by the Board
- ♦ To maintain a registry of holders of such certificates

IMPCB Model Program

- ◆ Certification should be by examination, conducted by a country-specific, geographically regional or other designated Medical Physics Certification Board
- ◆ Model Program developed in accord with IOMP Policy Statement No. 2

IOMP Policy Statement No. 2: Basic Requirements for Education and Training of Medical Physicists

- ◆ To serve as a reference for medical physics organizations, education institutions and health care providers and authorities
 - *for planning and development of their national infrastructures for education, training and certification of medical physicists and for maintenance of standards of practice*

Policy Statement No. 2: Minimum Educational Qualifications

- ♦ A university degree or equivalent (level corresponding to a master's degree) majoring in medical physics or an appropriate science subject
- ♦ The suitability of a certain education program to provide the necessary academic knowledge for the following professional training could be established through a suitable national or international validation/accreditation body

Policy Statement No. 2: Professional Training Requirement

- ♦ Medical physicists who have clinical responsibilities should have received (additionally to their education) a clinical competency training
 - *preferably in the form of a formal residency or an equivalent clinical training program, for a duration appropriate to their roles and responsibilities*
 - *For those jurisdictions in which an accreditation program exists for residencies, the residency should be an accredited program*

Policy Statement No. 2: Clinical Training

- ♦ At least 2 years full-time equivalent under the direct supervision of a Certified Medical Physicist (CMP) or equivalent
- ♦ Should be well-structured and designed to provide the trainee with extensive hands-on experience on a comprehensive range of clinical physics work processes and services

Policy Statement No. 2: Professional Certification

- ♦ Medical physicists practicing in medical institutions or those with clinical responsibilities should be subject to professional certification
- ♦ Medical physics organizations or health competent authorities should establish their own national 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

Policy Statement No. 2: Maintenance of Certification

- ♦ 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 Continual Professional Development (CPD) program

Policy Statement No. 2: CPD Program

- ♦ Medical physics organizations should establish and maintain their own national CPD systems to support the continual 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

Policy Statement No. 2: Certification Boards

- ♦ 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

IMPCB Model Program Parts

- ♦ Part I (written exam) – to test the competence of the candidate in fundamental aspects of medical physics (General Medical Physics)
- ♦ Part II (written exam) – to determine the competence of the candidate in a specialty area of medical physics
- ♦ Part III (Oral exam) – to determine the candidate's knowledge and fitness to practice clinical medical physics in a designated specialty

Continual Professional Development

To maintain an IMPCB certificate, a certified medical physicist must satisfy the continual professional development (CPD) requirements

IMPCB Accreditation Committee

- ♦ Created three subcommittees AC1, AC2, and AC3
- ♦ The charge is to establish guidelines and procedures to evaluate national certification programs applying for accreditation based on the Model Certification Program Parts I, II, and III requirements, respectively
- ♦ To prepare operational details such as check lists for evaluation, cost effective methods to do evaluations, etc.

AC – Chaired by Tomas Kron

- ♦ AC1 – Chaired by Carmel Caruana
- ♦ AC2 – Chaired by Ervin Podgorsak
- ♦ AC3 – Chaired by Adel Mustafa

Challenges Ahead

- Accredit national certification programs
- Help countries develop national Boards
- Issue certificates
- Maintain a registry of certified medical physicists who meet CPD requirements
- Conduct International Board Examinations

IMPCB Website

- ◆ www.IMPCB.org
- ◆ History
- ◆ Model Program
- ◆ By-Laws