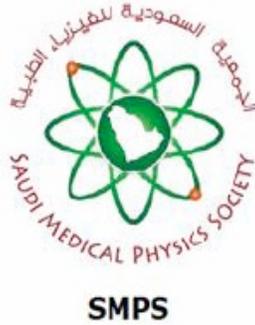


Kingdom of Saudi Arabia
Saudi Medical Physics Society



المملكة العربية السعودية
الجمعية السعودية للفيزياء الطبية

SMPS POSITION ON QUALIFIED MEDICAL PHYSICISTS

Introduction

Medical Physics is the science of applying physics in medicine for diagnosis and treatment of patients and their care. It has four sub-fields of specialization namely: ***Therapeutic Medical Physics, Diagnostic Medical Physics, Nuclear Medical Physics and Medical Health Physics***. The individual who has specialized in any of the four sub-fields is called a medical physicist.

The International Atomic Energy (IAEA) recognizes the specialized work of a medical physicist on the safe use of ionizing radiation in medicine. IAEA in its publications "***General Safety Requirements Part 3 No. GSR Part 3 (2104), Safety Guide No. RS-G-1.5***" and "***Radiological Protection for Medical Exposure to Ionizing Radiation***" and International Labor Organization (ILO) require a qualified medical physicist in medical facilities that use radiation.

A Medical Physicist

IAEA

Medical physicists must have received appropriate undergraduate education in physical or engineering sciences, followed by a professional competency training that includes an additional period of 1–3 years of academic education in medical physics at the postgraduate level. In order to become a clinically qualified medical physicist (CQMP), the academic training at the postgraduate level must be followed by at least two additional years of structured practical training in a clinical environment, in one or more specialties of medical physics.

ILO

Medical Physicists apply knowledge and methodology of science of physics to all aspects of medicine, to conduct research, develop or improve theories and address problems related to diagnosis, treatment, and rehabilitation of human disease.

International Organization of Medical Physicists (IOMP)

Medical physicists (MPs) working as health professionals shall demonstrate

and clinical competency training in one or more sub-fields of medical physics. Basic knowledge of the other sub-fields is also required.

American Association of Medical Physicists (AAPM)

A qualified Medical Physicist (QMP) is an individual who is competent to independently provide clinical professional services in one or more of the subfields of medical physics; has earned a master's or doctoral degree in physics, medical physics, biophysics, radiological physics, medical health physics, or equivalent disciplines from an accredited college or university; and has been granted certification in the specific subfield(s) of medical physics.

Certification Requirement

IAEA requires that the medical physicist be certified by the national or international accrediting bodies. International medical physics certifying bodies are: American Board of Medical Physics, American Board of Radiology, American College of Radiology, Canadian Board of Physicists in Medicine, American board of Health Physics (for Health Physicists).

According to the ACR document titled, "Personnel Requirements for Medical Physicists and MR Scientists", the **qualified medical physicist** in nuclear medicine physics is the one who is certified in Nuclear Medicine by *the American Board of Radiology, American Board of Medical Physics*, by the Canadian College of Physicists in Medicine or in **Nuclear Medicine Physics and Instrumentation** by the American Board of Science in Nuclear Medicine (ABSNM) .

In Saudi Arabia, the current national professional registration body for Medical Physicists is the Saudi Commission for Health Specialties in the category of Consultant, Senior Specialist and Specialist.

Position of the Saudi Medical Physicist Society (SMPS)

The machinery for a certifying board of the SMPS is not yet available. However, the IAEA provision of certification by international professional bodies in medical physics is amenable at this period of time because they meet the IAEA requirements for education and training in medical physics for all sub-fields. In addition, the registration at the Saudi Commission for Health Specialties complements the international certification because the Commission follows the same education and training requirements.

Any certification obtained **outside the medical physics field** is not acceptable for anyone who would like to work as a medical physicist. This includes the certification of ABSNM for the three major areas of nuclear medicine science namely: Radiopharmaceutical Science, Molecular Imaging Science and Radiation Protection because they are not encompassing the medical physics field. ABSNM states they certify competency in Nuclear Medicine Science and therefore not in medical physics.

As the ACR accreditation is only recognizing the certification in **Nuclear Medicine Physics and Instrumentation** by the ABSNM for a medical physicist in nuclear medicine, SMPS agrees with the ACR accreditation.

References:

1. IAEA "General Safety Requirements Part 3 No. GSR Part 3" (2014)
 2. IAEA "Radiological Protection for Medical Exposure to Ionizing Radiation" (
 3. IAEA Safety Standards Radiation Protection and Safety in Medical Uses of Ionizing Radiation (for final publication 2016)
 4. IOMP Policy Statement No. 2 " Basic Requirements for Education and Training of Medical Physicists" (2012)
 5. AAPM " Scope of Practice of Clinical Medical Physics" (2011)
 6. American Board of Science in Nuclear Medicine, <http://www.snm.org/absnm/>
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