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International Atomic Energy Agency
Agence internationale de l'énergie atomique
Международное агентство по атомной энергии
Organismo Internacional de Energía Atómica

Vienna International Centre, PO Box 100, 1400 Vienna, Austria
Phone: (+43 1) 2600 • Fax: (+43 1) 26007
Email: Official.Mail@iaea.org • Internet: http://www.iaea.org

In reply please refer to: **RER/6031 9003 01**
Dial directly to extension: (+431) 2600-22409

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The IAEA is pleased to send attached, for information and dissemination, the Recommendations of the **"Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives,"** held on 7-8 May 2015, in the IAEA Headquarters in Vienna, within the technical cooperation project RER/6/031 *Strengthening Medical Physics in Radiation Medicine*.

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# Recommendations of the Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives

## 7 – 8 May 2015, IAEA, Vienna, Austria

The Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives, held at IAEA headquarters, Vienna, from 7 to 8 May 2015, noted the following:

1. The important contributions of ionising radiation in diagnostic and therapeutic applications in healthcare;
2. The key role of clinically qualified medical physicists (CQMPs)[1] in the safe and effective use of ionizing radiation in medicine (diagnostic and interventional radiology, radiation oncology, and nuclear medicine);
3. The continuous innovations in medical radiation technologies and techniques for imaging and therapy that require comprehensive quality assurance (QA) programmes conducted by CQMPs in order to ensure the quality of diagnostic imaging and radiation treatment of patients;
4. The importance of the role of CQMPs in optimizing radiation protection and safety (of patients, staff and general public) in medical uses of radiation;
5. The shortage of CQMPs in the majority of Member States in the Europe Region;
6. An insufficient harmonization of medical physics education and training among the Member States in the Europe Region;
7. A lack of accredited clinical training programmes and corresponding continuous professional development (CPD) schemes in the majority of Member States in the Europe Region;
8. The efforts carried out by the IAEA, the European Commission and professional organizations to harmonize the core curriculum for medical physics education and clinical training.

The Meeting also observed the following for the Europe Region:

1. National mechanisms for the implementation of international basic safety standards and guidelines on what comprises the medical physics profession[2] are needed and, where appropriate, it is necessary to implement European directives in national legislation;
2. Sufficient levels of CQMP staffing, in line with international recommendations, are of major importance if high quality radiation health care services are to be ensured, and the risk of radiological incidents and accidents reduced;
3. A high level educational and clinical training framework for the certification of CQMPs in the different fields of specialisation (diagnostic and interventional radiology, radiation oncology, and nuclear medicine) is needed;
4. A competent national body for registration of CQMPs should be designated;

5. Adequate mechanisms to deal with the transition period for recognition and certification of senior professionals who are already employed in the field of medical physics should be established;
6. The recognition of medical physics as a health profession is crucial and should be reflected at the national level (list of recognized professions, legal and fiscal environment, etc.), as well as at the local level within clinical teams and through close involvement in hospital governance boards.

**Recommendations for the Europe Region**

Recalling the provisions of *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards* (General Safety Requirements Part 3, IAEA 2014) regarding the role of medical physicists in ensuring safety in diagnostic and therapeutic procedures involving the application of ionizing radiation, the Meeting recommended that Member States of the Europe Region should fully recognize the Clinically Qualified Medical Physicist (CQMP) as a health professional with specialist education and training in the concepts and techniques of applying physics in medicine, and competent to practice independently in one or more of the subfields (specialties) of medical physics.

The Meeting also recommended that Member States of the Europe Region should, in particular:

1. **Recognize** medical physics as an independent profession in health care with radiation protection responsibilities, as given in the *Joint position statement by the IAEA and WHO – Bonn Call for Action*;
2. **Ensure** that medical physics aspects of therapeutic and diagnostic procedures, including patient and equipment related tasks and activities, are performed by CQMPs or under their supervision;
3. **Establish** an appropriate qualification framework for CQMPs including education, specialized clinical training, certification, registration and continuing professional development in the specialization of medical physics, i.e. diagnostic and interventional radiology, radiation oncology, and nuclear medicine;
4. **Follow and fulfil** international recommendations regarding staffing levels in the field of medical physics;
5. **Establish** mechanisms for the integration of medical physics services in all centres practising radiation medicine, and establish, where appropriate, independent Medical Physics Departments in which accredited clinical training can take place;
6. **Promote** involvement of CQMPs in hospital governance boards and relevant national health committees;
7. **Establish and enforce** the legislative and regulatory requirements related to radiation safety in medical imaging and therapy where medical physics is concerned, in accordance with international and, where applicable, European basic safety standards.

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[1] The term 'clinically qualified medical physicist' as defined in *Roles and Responsibilities, and Education and Training Requirements for Clinically Qualified Medical Physicists*, IAEA Human Health Series No. 25 (IAEA, 2013), corresponds to 'qualified expert in medical physics' defined in the *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards*, General Safety Requirements Part 3 (IAEA, 2014), and the 'medical physics expert' defined by the European Council Directive 2013/59/Euratom.

[2] The following standards and recommendations are referred to: *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards*, General Safety Requirements Part 3 (IAEA, 2014); European Council Directive 2013/59/Euratom; *Roles and Responsibilities, and Education and Training Requirements for Clinically Qualified Medical Physicists*, IAEA Human Health Series No. 25 (IAEA, 2013); *European Guidelines on Medical Physics Expert*, Radiation Protection No 174 (European Commission, 2014).