

Guidelines for education and training of medical physicists in radiotherapy: recommendations from an ESTRO/EFOMP working group.

Abstract:

Aim: To provide a guideline curriculum covering theoretical and practical aspects of education and training for medical physicists in radiotherapy within Europe.

Material and Methods: Guidelines have been developed for the specialist theoretical knowledge and practical experience required to practice as a medical physicist in radiotherapy. It is assumed that the typical entrant into training will have a good initial degree in the physical sciences, therefore these guidelines also require that and are additional to it. National training programmes of medical physics, radiation physics and radiotherapy physics from a range of European countries and from North America were reviewed by an expert panel set up by the European Society of Therapeutic Radiology and Oncology (ESTRO) and the European Federation of Organisations for Medical Physics (EFOMP). A draft document prepared by this group was circulated, via the EFOMP infrastructure, among national professional medical physics societies in Europe for review and comment and was also discussed in an education session in the May 2003 EFOMP scientific meeting in Eindhoven.

Results: The resulting guideline curriculum for education and training of medical physicists in radiotherapy within Europe discusses the EFOMP terms, Qualified Medical Physicist (QMP) and Specialist Medical Physicist (SMP), and the group's view of the links to the EU (Directive 97/43) term, Medical Physics Expert (MPE). The minimum level expected in each topic in the theoretical knowledge and practical experience sections is intended to bring trainees up to the requirements of a QMP. The responses from the circulation of the document to national societies and its discussion were either to agree its content, with no changes required, or to suggest changes, which were taken into account after consideration by the expert group. Following this the guidelines have been endorsed by the parent organisations.

Conclusion: This new joint ESTRO/EFOMP European guideline curriculum is a first step to harmonise specialist training of medical physicists in radiotherapy within Europe. It provides a common framework for national medical physics societies to develop or benchmark their own curricula, but is also flexible enough to suit different situations of initial physics qualifications, medical physics training programmes, accreditation structures, etc. The responsibility for the implementation of these standards and guidelines will lie with the national training bodies and authorities.

Key words: Radiotherapy Physics, Radiation Oncology Physics, Specialist Training, Curriculum, Europe, European Harmonisation, Quality Assurance,