

RTT core curriculum

A core curriculum for RTTs (radiation therapists/radiotherapy radiographers) designed for developing countries under the auspices of the international atomic energy agency (IAEA)[☆]

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The cancer burden in developing countries is increasing dramatically, and with it the need for high-quality radiotherapy for cancer patients. The International Atomic Energy Agency (IAEA)'s major thrust in the field of cancer control is addressing this need for radiotherapy in the developing countries. Since 1981 the IAEA has delivered over \$57 million of radiotherapy-related assistance through its technical cooperation (TC) programme. Over 22% of the TC programme is devoted directly to human health and half of that is devoted to providing or improving the delivery of radiotherapy services. During the last five years the IAEA has invested an average of \$10.4 million annually in radiotherapy-related TC projects.

The Programme of Action for Cancer Therapy published by the IAEA in 2004 states that it will seek as one of its aims to "provide training, management skills and other resources that will help institutions take best advantage of the initial investments in trained staff and equipment for the safe and effective continuation of operations [1].

The shortage of well-trained radiation therapists (RTTs) limits the access to radiotherapy in many countries. Another reason for the sub-optimal utilization of the existing facilities is the lack of a quality culture in many institutions in developing countries. In this context, the establishment of training programmes was regarded as a high priority by the International Atomic Energy Agency (IAEA).

The development of RTT training in many countries is in its infancy, but national/sub-regional training programmes are essential to meet current and future needs

for well-trained RTTs. IAEA-funded training had frequently involved sending RTTs to foreign countries at great expense and with an associated high level of "brain drain". In 2002 in order to address this problem the IAEA established a working group to prepare a harmonized core curriculum for the education and training of RTTs in the developing world.

The project comprised three phases. The first phase was a one-week brainstorming meeting to define the syllabus content elements required for a core curriculum, the resources necessary and the practical issues relating to implementation and delivery. The members of the working party were selected to represent different areas of knowledge and expertise in the education of RTTs.

The initial phase was undertaken in Africa, and comprised a review of the current education status in Africa to help further inform the project. A wide variation in both duration and content of existing programmes in the different countries was found. This variation underscored the need for the development of a harmonised core curriculum and the potential for sharing scarce resources. Subsequently it became clear that similar variations exist within other regions and it was, therefore, considered that this core curriculum would be applicable to many countries in the world.

In Asia and Africa project coordinators of the respective regional cooperative agreements accepted this challenge by establishing a harmonized minimum acceptable syllabus of a core curriculum for the education and training of RTTs that emphasised radiation protection, safety, security and the need for quality assurance.

An additional benefit of curriculum harmonisation and of major importance in the developing world, is the need for newly developed training programmes to build networks and maintain regular communication with each other, in order to share knowledge and information and prevent duplication or omissions. Such linkages also help

[☆] This short correspondence is a link to the paper incorporating the full syllabus and available electronically as an appendix at the web-site of the journal. The full document is available at http://www.pub.iaea.org/MTCD/publications/PDF/TCS-25_E_web.pdf.

to ensure that developments are sustainable in the longer term [2].

The aims of the agreed core curriculum are to produce RTTs who are technically, and clinically competent, aware of radiation safety issues and the importance of quality assurance, understand the theoretical basis for evidence based practice, are effective members of the multidisciplinary team, are prepared to participate in or initiate research into practice and can move freely across the respective continents. All aspects of radiation therapy application have been considered and addressed in the development of this core curriculum together with the identification of the roles expected of an RTT in the development of a detailed syllabus. The full detail of the Core Curriculum can be accessed at the [electronic appendix](#) of this paper.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.radonc.2006.08.026](https://doi.org/10.1016/j.radonc.2006.08.026).

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