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Case reports and case series

Case report: The Estonian experience of the IAEA/ESTRO “Train the Trainers” project

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ABSTRACT

In Estonia, the delivery of radiotherapy historically was performed by nurses who had worked in the radiotherapy department or who had taken a 2 week course in radiotherapy. The minimum requirement currently for working as a radiation therapist (RTT) is a BSc. Radiography. However, within this programme, the radiotherapy-specific content only amounts to the equivalent of 3 European Credit Transfers (3ECTS). Since commencing on the European Society for Radiotherapy and Oncology (ESTRO)/International Atomic energy Agency (IAEA) Best Practice in Radiation Oncology: A project to train the RTT trainers project, and in order to fill this educational deficit, 4 short courses have been prepared by and for RTTs, with over 130 participants. Currently, a Baltic Master's programme with specific radiotherapy content is under development.

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Estonia has been actively working to improve RTT education for several years. Over the past decade we have had the opportunity to observe and participate in that development. From both a clinical and educational perspective, the need to change to dedicated RTT specialists was recognised and has grown over that period. This is of particular importance in the current setting given the technical developments, complexity and service expansion that has occurred in Estonia in the past decade (see [Table 1](#)).

When radiotherapy was first established in Estonia the RTTs were nurses who had acquired their knowledge about radiotherapy either in the clinical setting or through a specific 2 week course. Currently the qualification to work as an RTT in Estonia is the radiographer's higher education at BSc level. However, within this programme, radiotherapy-specific content has a minimal number of hours and only 3 ECTS. Radiography education in Estonia is a national programme and taught in one educational institute, Tartu Healthcare College. The lecturers involved in the delivery of the radiotherapy content of the programme in Tartu Healthcare College developed an online course for students which gave them a theoretical base prior to two weeks of clinical practice. However this is insufficient in terms of starting to work clinically in a radiotherapy department. The situation with radiography graduates who want to work in radiotherapy is that they start specialising in radiotherapy in the actual clinical setting when they are appointed as RTTs. Everything they are taught, depends on the

RTTs with whom they are working and this sometimes leads to the question: what is the qualification of the person in charge of teaching and what is their level of knowledge of radiotherapy? In Estonia now, there is a realisation that working in radiotherapy requires specialist education and training and it has to be of a high quality.

As Estonia's collaboration with IAEA and ESTRO grew stronger over the years, participation in two Train the Trainers projects has helped us improve the education level. In 2008 the North Estonia Medical Centre (NEMC) participated and arranged three courses over the following three years. The experience has been extremely positive both academically and clinically from the RTTs perspective and therefore also for patients with a definite improvement in the radiotherapy service through the experience. In 2016 a group from Estonia's second radiotherapy department: Tartu University Hospital (TUH) participated, organised one course and established a new RTT- led counselling service. As Estonia only has two departments, courses held were offered to all the working RTTs in the country.

Another important element of the educational development was the participation in two IAEA workshops directly related to the TTT Project. The first workshop focussed on RTT education- the current situation and the way forward, which was held in Vienna in 2013. The experience was important because it provided the opportunity to hear from others who have been in the same situation and to discuss how to improve RTT education. The majority of participants were from Eastern Europe and also did not have any

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Table 1
Courses delivered in Estonia as part of the Train the Trainers project.

Organiser	Year	Course title	Number of participants
NEMC	2009	Improvement of QA for 3D conformal radiotherapy	25
NEMC	2010	Acute side effects of radiotherapy	29
NEMC	2011	Advanced techniques and technologies in RT	51
TUH	2017	Improving treatment accuracy through RTT plan evaluation	27

specialist programme dedicated to radiotherapy. Consistent with the Estonian perspective the majority of them understood that nowadays the radiotherapy service, technical development, complexity and importance has grown immensely and a special programme for RTTs is a necessity, not an option.

Estonia already had the experience of providing a one-year specialist programme for ultrasound, nuclear medicine and radiotherapy specialists through a European Social Fund Project: RADEK. Several Estonian RTTs completed this course which unfortunately could not be repeated due to lack of resources. However the experience gained from this course demonstrated to Tartu Healthcare College and the Estonian clinical departments the importance of this type of specialist education to improve the service and the experience of patients. The Estonian group were able to share this experience with the other groups present and it was very well received as a concept.

Tartu Healthcare College and in particular the head of the radiographer education programme, had a new vision for specialisation in the form of an International Master's programme. This idea was also introduced during the next IAEA workshop, which was a regional follow-up workshop on education of RTTs in Europe reporting on progress achieved and an action plan for the future. There were

some new participants at the workshop from the Eastern European region but the majority were the same groups as had attended the initial workshop in 2013. In the intervening period, there had been some very positive developments, and Estonia's idea of developing and opening a Master's programme was well received.

Creating a Master's programme has not been an easy task. As Tartu Healthcare College did not have the background experience required it was agreed that some partner Universities were necessary and this led to the concept of a Joint Baltic Master's programme with Tartu Health Care College in collaboration with Klaipeda University in Lithuania and Latvijas University in Latvia. An intense accreditation period ended positively but logistical difficulties have arisen which are still to be resolved and have unfortunately delayed the start of the programme. However, first and foremost, there is no doubt by any party that such a programme is crucial for the development of radiotherapy services and the quality and safety of such services.

The programme itself is intended for all radiographers who are interested in specialisation and, as it is an international programme, students worldwide are welcome. Specialisation is offered in radiotherapy, magnetic resonance imaging, conventional radiography, ultrasound, computed tomography, interventional radiography, angiography and nuclear medicine (different specialisations will be opened in different years).

From Estonia's experience, it is apparent that visionary people who are willing to take the steps necessary to develop such programmes are necessary. It has not always been easy because every country has its own bureaucracy, financial and government issues but the effort is worth the positive outcome. ESTRO and IAEA, with their focus on providing assistance, education and training have played a major role in Estonia's RTT educational development and we look forward to a very positive future for radiotherapy in our country.