mean was 5.9. The main criticism of the course was related to time constraints.
Conclusions: The improvement in knowledge following the course and the high level of satisfaction metrics suggest that the gap in educating RTTs in countries without a dedicated bachelors degree may be bridged with intensive, high impact simulation rich education. Improvement and validation of these findings are underway with the second national course.

PO-1134
Using e-Learning to improve RTTs training: the case of a Skills e-Lab for the TrueBeam
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Purpose/Objective: To help Radiation Therapists (RTTs) to acquire, or bring up to date, the essential skills to operate the TrueBeam while, at the same time, reducing the time the facility is used for training purposes. To this end, an e-Learning solution has been developed.

Materials and Methods: A Rapid e-Learning methodology has been followed. This includes involving stakeholders, continuous validation, and the use of existing materials. Decisively, a multidisciplinary team (i.e., experienced RTTs, media producers, and e-Learning specialists) was responsible for the design and development of the solution. We used Articulate as authoring software.

Results: The result is a Skills e-Lab that helps RTTs to learn the basics on how to operate the TrueBeam facility. It is an online training module which includes video demonstrations, learning activities, self-assessments, and a final evaluation. In this way, RTTs can train at their own peace and time before going to the hands-on training.

The design of the e-Lab considers: (a) the competences for RTTs recommended by ESTRO and (b) modern instructional design principles (4C/ID-model). The patient flow, such as loading the patient or matching and position verification, is used to structure the content as a set of steps. Each step:
- Explains why the step is needed, when it has to be done, and how it works.
- Provides interactive learning activities to rehearse concepts that were explained in the information part.
- Includes self-assessments that help to practice what has been learnt. They can include different type of quizzes such as hotspot (i.e., to identify a part or button of the facility) or multiple-choice questions.
- Lists tips and tricks, including relevant information, documents and references.

On average, it takes around 2 hours to complete the e-Lab. Figure 1 gives an impression. It shows the main screen and the content of one step.

The e-Lab, which is available in Dutch and English, has been evaluated by RTTs (n=10) in The Netherlands and Belgium. Feedback shows that after completion of the e-Lab, most RTTs feel more confident to operate the TrueBeam.

Figure 1: Skills e-Lab: Basics on how to operate a TrueBeam Facility

Conclusions: Using a Rapid e-Learning methodology a Skills e-Lab was developed, which was positively evaluated by the target audience. In the near future, the Skills e-Lab will be tested by RTTs with different levels of expertise, and their feedback will be considered to make an improved version. We plan to include a certificate of completion, and an ‘observation list’ as part of the final evaluation. This list consists of a set of actions RTTs have to follow in the facility to check whether they master the required skills.

PO-1135
Extended scope of practice of radiation therapist: role in clinical planning procedures and patient management
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Purpose/Objective: Radiation Therapists (RT’s) play a well established role in the clinical part of treatment planning. In the past few years we have observed a significant increase in their academic competence, practical skills and experience. It gives the background to develop the role of Radiation Therapists as a part of Multidisciplinary Teams, enhanced cooperation with physicians and patient management. Extended Scope of Practice involves tasks that are outside current legislation. Our goal is to collect sufficient data to introduce radiotherapy as a specialisation course for electroradiologists. These tasks require a high level of knowledge and clinical experience, accredited further education and ongoing credentialing.

Materials and Methods: In 2013, a division of electroradiologists’ responsibilities was put into place according to their competences. Under a pilot project, 18 radiation therapist employed in one of the Radiotherapy Centres were assigned duties dependant on their level of...
education. Radiation Technology’ tasks (5 people) included: patient positioning, portal verification, irradiation delivery. The scope of licentiates’ responsibilities (equivalent of bachelor’s degree - 5 people) was extended to include QA dosimetric procedures and the preparation of accelerators. The existing duties of 8 people with magister’s degree (equivalent of master’s degree) were extended and supplemented with new competences. These included the supervision of the work on the accelerator, decisions on replanning (according to the protocol applicable in the centre), assistance to the radiation therapist in preparing patients for treatment, including common analysis of disease history, provision of basic information on the course of the disease and potential side effects of the treatment and proper organisation and performance of pre-treatment preparatory procedures (immobilisation, CT to treatment planning, organ at risk contouring, verification of ready treatment plans on the simulator).

Results: The improvement in the radiation therapist’ level of education enables that professional group to be used for a closer cooperation with the physician and the patient. The pilot programme helped improve the organisation of the Radiotherapy Centre. After two years of working under new rules, Radiation Therapist are able to effectively prepare patients for radiotherapy both in clinical and technical terms, and then to deliver treatment in keeping with the QA rules. In the second half of 2014, the above changes were implemented in the whole Oncology Centre (the total number of Radiation Therapist employed is 48).

Conclusions: Within one year of the introduction of the new radiation therapist’ functions, the organisation of work in the Radiotherapy Centre improved substantially. With a qualified group of radiation therapist involved in patient management and taking over some of the duties, the workload of radiation oncologist (RO) has been substantially reduced. This may in time contribute to the increase in the work output of both groups. Unfortunately, the extended Scope of Practice involves tasks that are outside current legislation. Based on our experience, we would like to contribute to the introduction in the near future of radiotherapy as a specialisation course for radiation therapist.