MSCC, in a single centre, during August 2014. Data was collected from electronic patient records (EPR) and included gender, age, primary site of disease, time MRI requested and time report made available. In addition information relating to commencement of radiotherapy (RT) and discussion of cases with neurosurgical team was recorded.

Results: 26 patients with suspected MSCC were identified. 20 were diagnosed with spinal metastases of whom 8 had MSCC. 6/26 patients (23%) did not meet the target of imaging within 24 hours of presentation. Of the 8 patients with confirmed MSCC 6 received palliative RT, all within 24 hours of a positive MRI scan. One patient underwent neurosurgical intervention and one received no treatment as the area had already been treated to maximal tolerance.

Conclusions: Delays in the management of MSCC may adversely affect the outcome for patients. Furthermore few patients receive surgery for MSCC despite evidence that surgery may be more effective than RT at maintaining mobility in a subset of patients.

The results of this audit demonstrate that there is scope to improve the patient pathway further with greater emphasis on earlier imaging, particularly in the peripheral hospitals referring patients to the Cancer Centre. This could be achieved in part by education. It is reassuring that all eligible patients received RT within 24 hours of imaging confirmation of MSCC. Less than half of the patients were discussed with the neurosurgical team highlighting the need for a robust referral pathway between the two disciplines.

Electronic Poster: RTT track: Education and training

EP-1685
The benefit of the "Train the Trainers" program - National courses for RTTs in Bulgaria and establishment of BSRTT
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Purpose/Objective: In 2010 first time ever a Bulgarian team from Tokuda Hospital Sofia attended the course 'Train the Trainers', part of ESTRO training program. The team was further committed to organize series of courses on the following goals throughout the country:
* To synchronize national education in Radiotherapy with the European standards.
* To increase the understanding of RTT’s role as part of a multidisciplinary team.
* To prepare RTTs to provide best achievable treatment.
* To create a network on national level.

Four Linacs were operating in 16 Oncology Centers in Bulgaria in 2010. This have changed to 15 Linacs at the end of 2014. Additional 7 Linacs are under installation. The number of RTTs in 2010 was 100 compared to 117 in 2014. The number of qualified RTTs needs to increase to 190 in the near future, showing significant shortage so far.

Materials and Methods: Two-day courses were planned as part of continuing education, covering the major steps in Radiotherapy treatment process. They were prepared as lectures, practical trainings and workshops for RTTs, and also allowed attendance by physicians and physicists. Each course consists of two workshops and more than 15 lectures and presentations, a program made for the first time in Bulgaria.

The courses in Tokuda Hospital Sofia, listed below were held on the following dates:
1. 'CT planning in Radiation Oncology', 15-16 April 2011;
2. 'Contouring the Organs at Risk in Radiation Oncology', 02-04 June 2011;
3. 'Radiation Therapy Verification', 30 - 31 August 2013;
Next course 'Patient preparation and immobilization' is planned in March 2015. The courses have their unique Logo sign, CDs with presentations, posters and certificates.

Results: The first three courses were attended by 280 participants - 167 RTTs, 25 physicians, 18 physicists, 24 trainers from Medical colleges, RTTs from Macedonia and Russia and students.

The interest shown and the number of participants proved the obvious need to establish new training programs and education methodology which combine theoretical knowledge and practical skills. Third and fourth course were organized in collaboration with teams from two University Centers of Radiotherapy. Six RTT teams started for the first time with 3D planning end irradiation the patients after training and support they received in Tokuda Hospital.

Conclusions: Based on these courses in 2014 in Medical Colleges was conducted student internship 'School and university student practices’ scheme. The courses program was used as a base to create a 240-hour internship training program for RTTs students in Medical College Sofia and continuous education scheme of RTTs in order to fill the gap in the training programs.

The greatest benefits of the participation at the 'Train the Trainers' program were significant changed of the role of RTTs in the multidisciplinary team, creation of professional network of RTTs in the country and establishment of Bulgarian Society of Radiation Therapy Technicians.

EP-1686
A culture of learning: using an incident reporting system for risk management in a radiotherapy department
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Purpose/Objective: All radiotherapy (RT) treatment involves a risk of incidents (INC) of major or minor importance. To ensure patient safety and allow for treatment quality improvement a risk management system is needed, enabling registration of all near-incidents (n-INC) and INC. This makes it possible to track INC trends and risk factors, thus allowing for improvement of daily practice. We here describe the process used in our medium-sized RT department (23.000 treatments per year) to create a culture of INC learning.

Materials and Methods: Our RT department created a setup based on a national incident reporting system, that allowed us to react to INC reports and take action if needed, including improvement of future workflow. A multidisciplinary group was appointed, consisting of physicians, physicists and RT nurses. Monthly meetings have been used to discuss reported INCs. All INCs and n-INC are continuously registered in a local database that allows sorting according to type and relation to internal work flow. This
Improving safety culture through incident reporting
K. Betcher, S. Lowitz
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Purpose/Objective: An organization’s ‘safety culture’ and approach to errors and events are recognized across industries as key factors influencing safety and quality. This presentation summarizes experiences, insights, and lessons learned three years after developing and implementing a comprehensive incident learning program in a large, multi-site (academic and community) Radiation Oncology department.

Materials and Methods: A ‘Condition Reporting’ program was developed with key attributes: 1) full staff participation, 2) four carefully defined incident severity levels covering a broad range from significant harm to minor process delays, 3) specific requirements for analysis and response for each severity level, 4) formal processes for review and oversight, and 5) web-based information system for reporting and tracking.

Results: Results show an increasingly healthy culture, a low threshold for reporting, and a decrease in higher-severity events. Between March 2011 and February 2014 a total of 6,260 conditions were reported. AHRQ-based Safety Culture surveys show continual improvement with 8 categories above national average. Response to conditions includes improved treatment techniques, safety checks, workflow, policies, procedures, and education.

Conclusions: An interdisciplinary incident reporting system is an effective tool for fostering a safety culture. By investigating lower level events in a non-punitive yet just manner, proactive actions can be taken contributing to a reduction in higher-severity events and increased employee engagement and ownership.

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EP-1688
Development and evaluation of the educational process of radiation therapy in Slovenia
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Purpose/Objective: The aim of this research is to present the development of education through history in the field of radiation therapy and to evaluate the number of lectures and hours of clinical training in the past and today.

Materials and Methods: Education of students of radiological technology has always been of utmost importance. The first data on the beginnings of schooling for a profession that is today indicated in the nomenclature of professions as ‘engineer or graduated engineers of radiologic technology’ are in Slovenia available in ‘Kronika Višje šole za rentgenske pomocnike’ (Chronicles of the College for Radiology Assistants). The study programme was later changed in 1954, 1962, 1975, 1982, and 1992. On the basis of the Higher Education Act from 2004, the first generation of students enrolled in the Bologna study programme - the first-cycle degree programme of Radiologic Technology - in 2008. In 2009, the first generation of students was enrolled in the Bologna study programme of Radiologic Technology, the second-cycle (master’s) degree programme. To complete the undergraduate programme, the students must fulfill all their study obligations. They have to write a research project and make a presentation of their work. They finish their studies with a first-cycle degree final exam. Project theses are minor research works conducted by mentored students at the Department of Radiation Therapy and the Faculty of Health

Staffs answer on our question regarding INC showed that the RT nurses agreed or totally agreed on ‘The culture in our department makes it easy to learn from others INCs’ in 91% of the cases and physicists agreed or totally agreed on that in 66% of the cases.

Conclusions: We experienced, that to use information gained in a learning matter, two things are needed: the INC reporting must be as complete as possible, i.e. all staff groups must be participating, and lessons learned should be disseminated through the organisation in an optimal way to assure and improve future workflow. We have shown, that a culture where we can discuss INCs and n-INCs in an open way, without involved parties feeling guilt; results in participation among staff groups in reporting INC. The multidisciplinary participation gives a differentiated picture of risk facts in the department and the systematic handling of the reported INC allows the RT department to track trends and helps to improve patient safety. Improvement of daily practice encouraged staff to report INCs.