

636 poster (Radiotherapy Technologists (RTT) Track)

EXTERNAL REVIEW SYSTEMS FOR RADIATION ONCOLOGY FACILITIES – CLINICAL AUDIT VERSUS OTHER REVIEW SYSTEMS.  
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**Purpose:** The aim of this paper is a/ to identify and compare existing external review systems for radiation oncology facilities and b/ to distinguish main differences between clinical audit and other external evaluation models and c/ to identify where those models are currently used in European Union member states.

**Materials:** Based on the literature review and the survey conducted between January and April 2007 among representatives of 67 national societies (for diagnostic radiology, radiotherapy and nuclear medicine) in European Union member states, the analysis of existing external review systems in radiation oncology was performed. Relevant information about purpose, scope and methodology of evaluation process for those systems were surveyed.

**Results:** The response to the questionnaire was 72 %. Only a few countries did not supply any reply in spite of repeated enquiries to several recipients. Six main categories of systems aiming at measuring the quality of service management and delivery were identified: (1) professional peer review based schemes, (2) hospital accreditation, (3) accreditation in terms of ISO standards, (4) award seeking (e.g. European Foundation for Quality Management (EFQM) Excellence Model), (5) certification by International Standards Organization (ISO), and (6) clinical audit.

**Conclusions:** Though the methodology and terminology of the six main external review systems differ, a constant movement towards collaboration and convergence of those models has been observed. Due to the social, political, and economical aspects of each European country, the different audit systems have been implemented either on voluntary or mandatory basis.

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PATIENT SAFETY AT A RADIOTHERAPY DEPARTMENT: HOW CAN WE ENHANCE SAFETY?

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**Purpose:** Medical errors can be classified into five categories: poor decision making, poor communication, inadequate patient monitoring, patient misidentification, inability to respond rapidly and poor patient tracking. Employing innovative information technologies in correcting these deficiencies is the current trend in enhancing patient safety. Radio frequency (RF) identification is one technology that has significant potential to secure the medical supply chain and increase the safety and efficiency of healthcare processes. It is our purpose to identify patient waiting times; identify treatment unit occupation and guarantee patient and its accessories' identification.

**Materials:** Patient waiting times: a) for a two week period we observed a group of 50 patients while waiting at the waiting room and registered waiting times. An excel sheet was used to register times; b) we developed a survey with the purpose of assessing patients satisfaction with the length of time they spent in the department. Treatment unit occupation for a two week period we registered the time length (from the moment the patient entered the treatment unit till he left) using a chronometer, for a group of 50 patients, at the three Linacs operating at our department. An excel sheet was used to register times. Patient and accessory identification we used our reporting system to monitor reports on patient and accessory misidentification for a 3 months period.

**Results:** Patient waiting times: a) waiting times observed were in average 40 (18/65) minutes; b) although patients weren't pleased with the length of time they waited for treatment everyday, they are pleased with the information given by the staff about the reasons they waited so long. Treatment unit occupation occupation times observed were: a) Linac 1 - in average 19 (8/35) minutes; b) Linac 2 in average 13.5 (8/60) minutes (special techniques have been included); c) Linac 3 in average 18.5 (5/32) minutes. Patient and accessory identification we received 2 incidents reported for the three months period. Those incidents were classified and reviewed by a team and conclusions were taken to be implemented in the near future.

**Conclusions:** Patient waiting times and unit occupation are of a great interest either to the quality of healthcare delivery or to guarantee patient safety environments. A large amount of articles has been written on patient identification and considered one of the most important issues on patient safety widely. In radiotherapy procedures there is also the need to correctly identify treatment devices in order to assure safety. Nowadays there are several ways of reassuring people and materials identification, namely by radio frequency. CIVCO has developed RFSuite™ that utilizes RF technology to track patients, personnel, charts, film folders and all types of positioning devices. CIVCO's RFSuite™ has confirmed several benefits: assists in decreasing patient setup errors, a daily record of devices used for treatment is stored in a

database and the presence of any treatment device is observable in the treatment room. There is a need to readily apply technology used already in other settings capable of increasing safety and efficiency of healthcare processes.

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PATIENT SAFETY CHART RADIATION ONCOLOGY

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**Purpose:** Safety has become a main issue in health care, and more specifically, in the hospital environment. A number of different measures have taken their place in daily hospital regime. It's impossible to imagine hospital life today without Plan-Do-Check-Act cycle, the safety management system, Risk inventory and evaluation and projects such as "A Faster Recovery". But, after careful consideration, are hospitals really as unsafe as all that? International research shows that approx. 10% of clinical patients experience an adverse event during their stay in hospital, i.e. a non-disease related trauma. 50% of these adverse events could have been prevented by standard care (Vincent, Graham & Woloshybowych, 2001). The dept. of Radiation Oncology of the Leiden University Medical Centre has examined the feasibility of patients contributing to safety in treatment. This investigation has resulted in a patient safety chart, stimulating patients to play an active part in improving treatment safety in any given department of Radiation Oncology.

**Materials:** The baseline part of this study aims at the experience of safety seen from the patient's perspective (feeling of safety and safety behaviour). Questionnaires were distributed before and after the introduction of the patient safety chart. The second part aims at the feasibility and efficacy of the patient safety chart. Also, within the department behaviour with regard to safety has been discussed. Health professionals need to be fully informed on the conditions of patient participation to turn it into a success. To map out these conditions for patient participation the present study was initiated.

**Results:** Results from both parts of the study will be presented, as well as several quotes from the discussion. At the baseline score, patients (n=65) did not feel unsafe. On average, they scored high on the safety questions (ratings 4 out of 5). After using the safety charts, scores remained the same; the feeling of being unsafe did not increase when confronted with potential risks. All consented willingly to participation and agreed that safety is partly their own responsibility. Discussions between technicians revealed an unexpected resistance towards patient participation, mostly because it was felt that patient safety was the responsibility of the professional.

**Conclusions:** The patient safety chart was evaluated by patients as informative: after reading the chart they were aware of their possible contribution to safety in their own treatment. They advised to implement the chart. Implementation of a patient safety chart needs to be introduced cautiously, as some of the aspects seem to conflict with professional autonomy. To develop an appropriate model on professional attitude towards responsibilities we will examine the attitude factors in patient participation.

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THE DEVELOPMENT OF A DOCUMENTED INTEGRATED MANAGEMENT SYSTEM (QUALITY AND HEALTH AND SAFETY MANAGEMENT SYSTEMS) IN GREATER POLAND CANCER CENTRE (POLAND)

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**Purpose:** The objective of this paper is to present the practical approach to the development, maintenance and improvement of the Integrated Management System in radiation oncology in Greater Poland Cancer Centre.

**Materials:** Integrated Management System (IMS) includes Quality and health and safety Management Systems based on ISO norm 9001 and national guidelines PN-N 18001. Any legal requirements the organization has to comply with or any initiatives the organization is participating with is utilized to established IMS. The compliance of the organization's management system with national and international standards has been verified by an internal auditing process and on-site visits since 2001. Audits' outcome, non-conformance reports and health and safety protocols were the main research material. The analysis of internal audits' results and the study of occupational health and safety protocols present main problems discovered within the irradiation process.

**Results:** The objective of the management system is to improve the organization and safety of radiotherapy process. The detailed audits' outcome analysis and non-conformances' study showed that the main identified problems were: the lack of physician's and medical physicist's authorization of patient's irradiation protocols, the lack of patient's agreement for radiotherapy process, the change of the patient's personal data in irradiation medical protocol and in VARIS system, the wrong personal identification number of