

SAFRON

A Newsletter on Patient Safety in Radiotherapy

January 2015 Featured Case Study in this e newsletter "**TREATMENT PLANNING ERRORS**"



Technical Meeting on Patient Safety in Radiotherapy

IAEA Headquarters in Vienna, Austria, 29-31 October 2014.

The purpose of the meeting was to develop additional guidance on patient safety in radiotherapy. International experts from 24 countries participated in the following sessions:

- Perspective on Patient Safety in Radiotherapy from Organizations,
- IAEA Technical Activities and Collaborations, and
- Other Technical Activities and National Experiences.

At the conclusion of the presentations the participants divided into 4 work groups to address the following topics:

- ◆ Global collaboration in safety reporting and learning taking into account the differences in infrastructure.
- ◆ Evaluation of prospective risk analysis and how it may be implemented more widely in radiotherapy practices.
- ◆ Using the "Bonn Call for Action" to form a basis for future developments in patient safety in radiotherapy.
- ◆ Evaluation of SAFRON and suggested changes or enhancements.

The plenary and group discussion held during the meeting provided information for enhancing the activities of the IAEA, other organizations, as well as in national settings, and to develop a report entitled "Radiotherapy Safety: A way Forward," that will be finalized in 2015.

Links to IAEA Publication for Radiotherapy Training on Radiation Protection of Patients Website:
www.rpop.iaea.org

- [Training Material](#)
- [Radiation Safety in External Beam](#)
- [Radiation Safety in Brachytherapy](#)
- [Accident Prevention](#)

Patient Identification Policies and Procedures

Inadequate communication concerning the identity of the patient from one healthcare worker to another has been observed in SAFRON reports. SAFRON has several reports where the lack of communication has led to patients receiving treatments designed for someone else.

This can be corrected in many of the situations with the use of a communication policy that requires the verification of patient identification and then verification of the correct treatment set up procedures. This has been very successful in surgical applications where the patient may be receiving care by several healthcare providers. The purpose is to make sure that the correct patient receives the medical care designed for them.

One of the recommendations for an effective communication policy is to require a face-to-face interaction between the therapist and the patient and between therapists. Typically the patient should be identified by more than one method. The identity questions should require a verbal response from the patient and include asking the patient to provide identifying information such as birthdate. An example would be to ask the patient to recite his or her name and also provide their birthdate. When the identification is passive such as requesting Mr. Smith, there may actually be more than one Mr. Smith's under going treatment at the same time.

Another method is to compare the patient to a current photograph. In institutions having more than one therapist assigned to a treatment unit it may be necessary for both therapists to identify the patient. There are institutions using an electronic verification process where the patient identification and treatment plan are linked through the use of a "bar code" system. The information provided on the patient identification arm band must match information uploaded in the treatment unit before the patient can be treated.

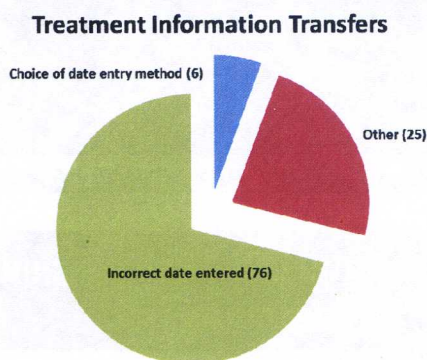
After the identification process is completed the treatment plan is accessed for the patient's treatment. Regardless of which method you use, this is an important step that should be part of the institution's safety policy.

Featured Topic: Treatment Planning

Today with the modern radiotherapy centre, much attention is placed on the equipment operation and treatment planning. One of the key items in reducing the likelihood of errors is the automatic transfer of data from imaging and simulation to the treatment planning system to the treatment unit. SAFRON demonstrates that errors and incidents are more likely to happen if data is manually transmitted. To improve patient safety the use of software interfaces connecting the data from one process to another reduces the potential for errors. It is important to verify that the software "speak the same language" and it should be verified through acceptance testing and quality assurance processes. Verification of the accuracy of the transfer of data can be performed by simulating the set up and verifying that the dose prescribed is the dose received. Once the equipment has been tested then follow up and routine checks assure the data transfer remains accurate. (continue on page 2)

Radiation Protection of Patients (RPOP)

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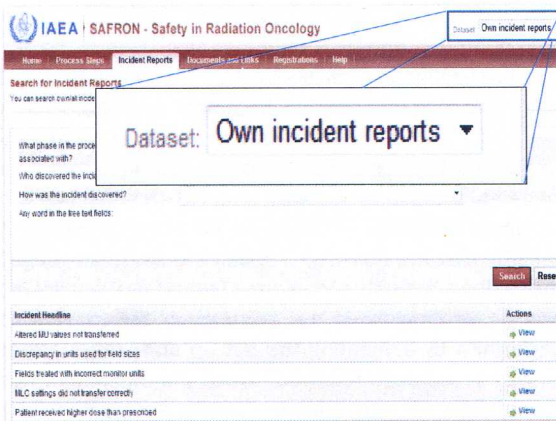
SAFRON is able to identify the type of errors contributed to the an incident or near miss. In "Treatment Information Transfers" there were 76 reported incidents related to using the wrong data. Facilities may wish to review their procedures to verify that they are adequate safety barriers to identify these types of errors.

What are the professionals saying:

"What a national database would do is look for trends. Is it a certain kind of facility that has errors? Is it a certain kind of machine producing trouble? Does it have to do with staffing? We can't answer those questions but have a national database where everyone reports errors perhaps even close calls is a fantastic way of getting answers quickly Anthony Zeitman, MD, 2011 President of ASTRO (Minimizing Errors in Radiation Therapy, By Beth W. Orenstein, Radiology Today Vol. 12 No. 1 P. 30)

How to use SAFRON in your institution

You can use SAFRON to track and evaluate the types of near misses and incidents within your facility. Simply change the setting on the dataset of incident reports you wish to search to identify only those within your institution. For medical facilities tracking incidents and near misses this information can help identify areas where potential errors may occur. By looking at all incident reports value can be added to the learning by providing the reviewer with information on corrective actions used by other institutions.



Treatment Setup (continued from page one)

Some institutions perform modelling and simulation of complicated treatment plans using phantoms and dosimetry equipment. In vivo dosimetry is also used to verify patient dose.

Even with electronic transfer, data elements should be verified for accuracy during the treatment planning. If the information entered into the system is wrong then the treatment plan and treatment may be incorrect. Some examples include the use of simulation images to create the treatment plan and the transfer of the data to the treatment unit.

Incident 1- Patient undergoing gamma knife was scanned using a feet first technique. The scan images were reversed and the patient was treated on the opposite side of the brain than prescribed.

Incident 2- Radiation Oncologist's planned a patient's treatment using a previous CT scan rather than the current valid scan.

Incident 3- A set of CT images has been imported into the record of a patient different from the one to whom the images belong. The error was discovered during structure contouring. (ROSI 1108944662)

Lessons to be learned – Pretreatment checklist or procedures should include the verification of the patient's orientation in the scanner, assurance that the most recent patient images are used for planning and assure that the correct patient images are uploaded into the treatment planning system

Most Frequent Types of Reports in the Pre-treatment phase	Number	Most Frequent Types of Reports in the Treatment Phase	Number
	615		545
Treatment planning	255	Treatment Setup	393
Treatment information transfer	109	Patient Setup	132
Simulation, imaging and volume determination	109	Treatment Unit Setup	154
Prescribing treatment protocol	59	Use of treatment accessories	105

For Further information:
 Contact: SAFRON.Contact-Point@IAEA.org
 See: <http://rpop.iaea.org/SAFRON>
 Write to: IAEA
 Division of Radiation, Transport and Waste Safety
 Vienna International Centre, PO Box 100

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