

Improving Safety in Radiation Therapy

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Objectives: Safety in Radiation Oncology (SAFRON) is an IAEA-developed user system for improving the safety and quality of care in radiation therapy through sharing of knowledge. With professional collaboration, incident reporting can reduce future medical errors, therefore improving patient outcomes in radiation therapy.

Methods: Radiation therapy facilities report incidents that have or could have impacted patient treatment. These are indexed by the treatment step where the incident occurred, creating a list of incidents and near misses that can be used to suggest improvements to facility activities that will prevent future similar incidents. By sharing with other radiation facilities, they can learn about the incidents and near misses and methods for prevention.

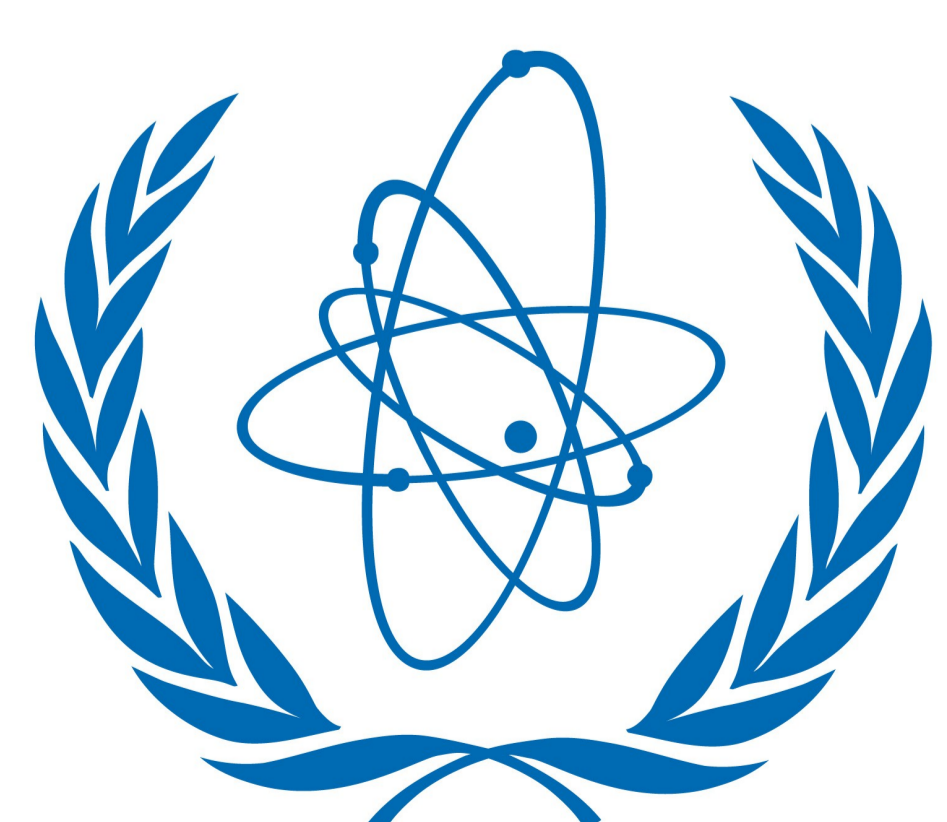
The screenshot shows the SAFRON web application interface. At the top, there is the IAEA logo and the title "SAFRON - Safety in Radiation Oncology". Below the title, there is a navigation menu with options: Home, Process Steps, Incident Reports, Documents and Links, Registrations, and Help. The main content area features a header "Safety Reporting and Learning System for Radiotherapy" and a brief description of the system. Below this, there are three columns: "Actions" with links like "Browse Safety Info by Process Step", "Submit Incident Report", and "View Instructions"; "Featured Incident Reports" with a report titled "Orthovoltage equipment not properly calibrated"; and "Featured Documents & Links".

Discussion:

- More acute radiation deaths have been reported from radiation therapy events than any other nuclear related event.
- SAFRON intends to collaborate with other reporting systems, and currently contains incident information gathered by the IAEA and ROSIS.
- SAFRON has over 1000 incidents and near misses in its database.
- SAFRON is non-punitive, anonymous, and voluntary.
- SAFRON is a comprehensive source of information for radiation safety related events.
- SAFRON includes information on a wide variety of published scientific journals and incident reports.



Results: Currently the IAEA is conducting a pilot of SAFRON with anticipation that it will be available later this year. Institutions will be asked to register and contribute voluntarily and anonymously with information about incidents. Institutions can use the SAFRON information to identify areas for improvement based on incidents at other facilities. Institutions can use the information to improve patient safety through quality assurance and identification of safety critical areas.



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