

NSIR-RT BULLETIN

Welcome to the electronic bulletin for the National System for Incident Reporting - Radiation Treatment (NSIR-RT). This Bulletin supports continuous learning from incident data through the presentation of data trends and case studies. It will also provide system users with information on program developments and enhancements.

NSIR-RT Advisory Committee

The NSIR-RT Advisory Committee was established in 2017 to oversee the operation and evolution of NSIR-RT to assure that it meets the current and future needs of the Canadian radiation treatment community. Members help monitor system utilization, identify patterns and trends in incident data and support incident reporting, investigation and learning opportunities within Canada and around the world. NSIR-RT Advisory Committee members are:

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NSIR-RT Case Study

The Importance of confirming patient identification during procedural changes
(the COVID-19 issue)



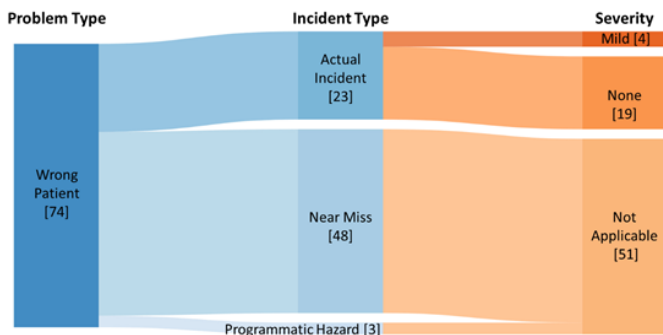
Patient misidentification is a potential problem that crosses all areas of health care, including radiation treatment. CPQR's [Quality Assurance Guidelines for Canadian Radiation Treatment Programs](#) includes a key quality indicator (KQI) that recommends "patients are identified using at least two patient-specific identifiers before any radiation treatment planning or treatments provided." Additionally, the Canadian Association of Medical Radiation Technologists (CAMRT) has established [best practice guidelines](#) for patient identification that states "all patients are positively identified with two patient identifiers prior to initiating a medical imaging or therapeutic procedure." In addition to these, radiation treatment programs typically have local quality assurance policies and procedures ensuring the right patient is treated with the right plan, however misidentification incidents do still happen.

The COVID-19 pandemic has forced health care centres to deviate from some standard policies and operations. Protocol deviations resulting from COVID-19, such as the requirement that all patients wear masks, and increased infection control procedures such as changes to workplace layout, have increased challenges associated with patient identification.

But patient misidentification incidents are not new, and did not begin with the pandemic. A recent report by the European Society of Radiation Oncology (ESTRO) that mined incident data submitted to the Radiation Oncology Safety Education Information System (ROSEIS) found misidentification trends that extend earlier than 2020. Although, in some instances, patient identification was rectified before treatment was delivered, in others the patient received incorrect treatment, suggesting there are opportunities to improve our approach to patient identification independent of the pandemic.

Analysis of NSIR-RT data

74 “wrong patient” incidents have been submitted to NSIR-RT since 2016, 23 of which were actual incidents that reached the patient. Of those 23, 19 incidents resulted in no harm to the patient and 4 resulted in mild harm and/or minor dosimetric impact to the patient. This case study focuses on three “wrong patient” incidents in which patients were misidentified for treatment and COVID-19 protocols were expressly referred to as a contributing factor.



Example 1: Face mask impeding visual identification

With the onset of the pandemic, patients have been mandated to wear masks making it difficult to see faces. One centre reported calling for Patient B from the waiting room, but Patient A responded. The patient was wearing a mask and the identification policy was not followed. As a result of misidentification, Patient A was treated with Patient B's plan. The fields were similar, but the dose was higher. The additional dose for Patient A was not a concern for the radiation oncologist and the dosimetric impact was minimal. Patient B was treated correctly, although treatment was delayed by two hours because it was the last fraction, and an urgent plan copy was needed before the treatment could be delivered.

NSIR-RT By the Numbers	
Incidents Submitted	5,131
Actual Incidents	3,263
Near Miss	1,506
Programmatic Hazard	362
Severity	
None	2,483
Mild	717
Moderate	56
Severe	7

Example 2: Workflow policy restricts review of patient appointment cards

Most radiation treatment programs have imposed workflow changes since COVID-19. In one centre, changes included no longer requiring that unit staff request patient appointment cards which meant that most patients were not bringing their card in the treatment room. The centre reported an incident in which a wrong patient's chart was being used for a cone-beam CT. In this example, the patient and care team member did not speak the same language, making identification verification difficult. The patient's treatment plan was similar in set up (tattoos, accessories, etc.) to the chart. At some point during the scan the error was noted, and the patient was re-scanned and treated against the correct plan.

Example 3: Expectation bias resulting from changes to waiting room protocols

In another example drawn from NSIR-RT, changes to patient flow as a result of COVID-19 infection control protocols contributed to staff expectation bias and a resulting near miss patient identification event. In this example, the department was required to close the common patient waiting room, and limited patient arrival to 5 minutes prior to treatment time, waiting outside their designated unit. These changes were designed to limit the risk of patient-to-patient transmission of the virus. Two patients booked back-to-back were in the incorrect order on the treatment queue pages.

WHAT'S HAPPENING WITH OUR PARTNERS?

5 Years of Experience Program Report

The [RO-ILS in Review: First Five Years of Experience Report](#) describes accomplishments and programmatic changes (e.g., new data elements, new internal triage mechanism for event review) as well as the importance of internal event review. It also provides important background information, an overview of the submission and reporting process and program benefits.

Thinking that the first patient to arrive was the first on the queue, the first patient was checked-in incorrectly by the clerical staff. Treatment unit staff had all documents brought up for the patient who was first on the queue. Staff called the patient by the name shown on the queue. Although it was the wrong name, as the patient was waiting alone, they assumed it to be their call and went to the treatment room. The patient looked like the identification photo, although they were wearing a mask. The patient was greeted by the name on the queue and it was at that moment the patient said it was not their name. The patient's true identity was then confirmed as per the two-piece identification policy, and the unit realized the patient was present at the correct time but that there was a mistake in the queue and with the check in. All documents were then brought up for the correct patient, and the plan was treated correctly.

Recommendations

Significant changes to policies and protocols, made either in response to external pressures such as the COVID-19 pandemic, or internal ones such as resource limits, should be evaluated and assessed to ensure they reflect existing best practice and support safe care.

CPQR's [Quality Assurance Guidelines for Canadian Radiation Treatment Programs](#) recommends that at least two person-specific identifiers are used to confirm that patients receive the service or procedure intended for them. Person-specific identifiers include name, date of birth, medical record number, and photographs. As has been suggested by the ESTRO report, the addition of a third discrete identifier can help reduce the likelihood of patient misidentification.

Verifying information should be carried out discreetly and the patient should be asked to state their details that staff should then confirm by checking either the wristband, patient identity card, treatment chart, etc. Patient details can be very similar, and a fourth safety feature could be the inclusion of a patient photograph in the notes and/or in the record and verify system. However, as highlighted in this case study, the usefulness of the photograph is limited during a pandemic when patients are wearing masks and should not be solely relied upon.

NSIR-RT Safety Advisory

In December 2020 a provincial cancer agency requested dissemination of an incident to the Canadian Radiotherapy community. CPQR agreed that the incident warranted dissemination to cancer programs across the country and issued a bulletin 18 December 2020. Details of the bulletin are included here for information.

A 6.0 cm, non-metallic, CT/MR compatible brachytherapy intrauterine tube tandem broke inside a patient's uterus during a brachytherapy procedure. It was noticed that the tandem lumen in the MR image appeared dislocated and discontinuous. A marker inserted into the tandem also appeared to show signs of blood. The incident was submitted to NSIR-RT.

Healthcare Professionals were advised to:

- Ensure that their medical physics checks align with the tests included in the [Technical Quality Control Guideline for Brachytherapy Remote Afterloaders](#), in particular mechanical integrity tests done quarterly or at the time of equipment replacement, or equivalent.
- Ensure that use and handling of brachytherapy equipment complies with manufacturer guidelines, in particular those pertaining to life expectancy, handling and sterilization.
- Conduct a visual inspection of equipment after sterilization.
- Report all incidents to their hospital incident reporting program and administration as per their hospital's policy. CPQR also encourages reporting to NSIR-RT.
- Report any concerns with intrauterine tube CT/MR brachytherapy tandems or other brachytherapy equipment to the manufacturer.

System Updates

The NSIR-RT Advisory Committee reviewed user feedback on the NSIR-RT Minimum Data Set submitted since 2017 and developed an action plan for revisions. Watch out for details on how feedback was addressed, and a timeline for change implementation in the upcoming Spring 2021 bulletin.

Case Study References

CAMRT Best Practice Guidelines, Patient Identification. Canadian Association of Medical Radiation Technologists, 2015. Available from: <https://camrt-bpg.ca/patient-management/patient-interactions/patient-identification/>.

Quality Assurance Guidelines for Canadian Radiation Treatment Programs. Toronto, Canada: Canadian Partnership for Quality Radiotherapy, 2019. Available from: <http://www.cpqr.ca/wp-content/uploads/2020/03/ORT2019-12-04.pdf>.

Spotlight Case: Patient Identification. Belgium, Brussels: European Society for Radiotherapy and Oncology, Radiation Oncology Safety Education and Information System, 2016. Available from: <https://roseis.estro.org/wp-content/uploads/2016/06/PATIENT-IDENTIFICATION-1.pdf>.

