CPQR
Canadian Partnership for Quality Radiotherapy
PCQR
Partenariat canadien pour la qualité en radiothérapie

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NSIR-RT BULLETIN

Welcome to the electronic bulletin of the National System for Incident Reporting – Radiation Treatment (NSIR-RT). This bulletin promotes continuous learning through sharing incident data trends and case studies, and provides system users with information on program developments and enhancements.

ABOUT

The NSIR-RT Bulletin has been published since 2016 by the Canadian Partnership for Quality Radiotherapy's (CPQR's) NSIR-RT Advisory Committee, with support from the Canadian Institute for Health Information (CIHI), and since 2021, from the Canadian Association of Provincial Cancer Agencies (CAPCA). Earlier editions of the NSIR-RT Bulletin are available on the CAPCA website at www.capca.ca.

We welcome your ideas for future case studies, as well as patient testimonials related to radiation treatment safety. Please contact Kristi MacKenzie, CAPCA Executive Director at info@capca.ca with content ideas and testimonials.

CIHI

CAPCA Canadian Association of Provincial Cancer Agencies

CAPCA brings together cancer programs from all provinces to work together to improve cancer control across Canada. CAPCA champions a sustainable pan-Canadian cancer control system that enhances access and quality, fosters research and innovation, and improves cancer outcomes.

POWERING PROGRESS IN CANADA'S RADIOTHERAPY WORKFORCE

On September 10, 2025, CPQR convened a full-day meeting in Calgary, Alberta with the theme of Powering Progress: Strengthening the Radiotherapy Workforce in Canada.

Building on insights from CAPCA's pan-Canadian Strategic Oncology Workforce Report, CPQR identified "Strengthening Models of Care and New Roles" as a priority to help address workforce challenges affecting the quality and sustainability of radiotherapy services.

To advance this priority, CPQR will bring together a multidisciplinary group of collaborators to:

- **Review new and emerging roles and scopes of practice** to align with evolving care needs.
- **Identify innovative care models** that maximize existing capacity and integrate new roles, drawing on lessons from other specialties.
- **Develop Key Quality Indicators** that reflect changing scopes of practice and evolving care models.
- **Update clinical guidelines** to incorporate virtual and hybrid care, artificial intelligence-supported treatment planning, and scope-of-practice adjustments related to workforce pressures.
- **Measure post-implementation impact** to monitor improvements in access, consistency, and quality of care.
- **Support change management,** including regulatory alignment and stakeholder engagement.

Upcoming CPQR meetings will focus on developing an implementation roadmap outlining milestones, timelines, and required resources.

The overarching goal is to enable safe, equitable, and innovative radiotherapy care, ensuring that patients across Canada continue to receive timely, high-quality treatment.

BEYOND THE CHECKBOXES: UNDERSTANDING "OTHER" IN RT INCIDENT REPORTING

In radiotherapy, we live by our data — and how we classify incidents shapes what we learn from them. Most events slot neatly into established categories. But as practice evolves, not every incident fits within them. Enter the "Other" category: a small field with a big job.

Used well, "Other" is a signal. It helps surface emerging patterns, nuanced workflow issues, and the occasional "we've never seen that before." These insights help refine taxonomies, keep reporting systems aligned with real-world practice, and strengthen safety processes.

But there's a catch. When "Other" becomes shorthand for "I'm in a hurry," or a stand-in for scenarios not fully reflected or intuitively structured within the current Minimum Data Set, important detail can slip through.

With that in mind, the NSIR-RT Advisory Committee recently requested an analysis of CIHI data pertaining to use of the "Other" problem type, which was found to account for ~21% of all RT incidents between 2015 and 2025.

Digging further into the data, CIHI assessed 473 "Other" incidents submitted after 2022, with data extracted in May 2025. Findings included:

- 23% of "Other" incidents could have been categorized under an existing problem type
- An additional 36% of "Other" incidents exist in the current Minimum Data Set, but under "contributing factors," not "problem type."

Patterns in usage of "Other" highlight helpful opportunities that the NSIR-RT Steering Committee will be working to address. These include refreshing awareness and usage of existing categories, clarifying how to code multi-element events, and reassessing the Minimum Data Set.

Stay tuned for more information in the coming months.

NSIR-RT OPERATIONS TO TRANSITION TO ISMP CANADA

CIHI and the Institute for Safe Medication Practices Canada (ISMP Canada) have announced a transition of the National System for Incident Reporting (NSIR), including NSIR-RT for radiotherapy incident reporting. NSIR will move to ISMP Canada by March 2026.

The change shifts national stewardship of the NSIR program and reinforces a shared commitment to patient safety and data-driven improvement.

During the transition period, radiotherapy centres can continue using the system exactly as they do today. As part of this transition, the enrolment of new facilities in NSIR through CIHI ended on November 13, 2025. ISMP Canada will enrol new organizations in NSIR beginning April 2026.

CIHI and ISMP Canada will provide updates and guidance as the transition moves forward.
For more information: **www.cihi.ca/news.**

CASE STUDY: UNDERSTANDING THE PATTERNS SHAPING RADIOTHERAPY INCIDENT REPORTING

By Brian Liszewski, Ontario Health (Cancer Care Ontario)

The Opportunity

A recent review of NSIR-RT data revealed an unexpected trend: nearly 20% of submitted radiation therapy incidents had been assigned to the "Other" problem-type category, a category originally intended for rare or atypical events.

This finding prompted the NSIR-RT Advisory Committee to further examine whether the taxonomy requires refinement or whether additional guidance is needed to support consistent classification across participating centres.

The overarching aim remains unchanged: to strengthen national reporting practices and enhance the utility of the NSIR-RT dataset for learning and quality improvement.

Many centres had already identified challenges in selecting the most appropriate problem type. Some incidents were difficult to categorize; others raised uncertainty about whether they met the criteria for reportable radiation therapy safety events.

Rather than viewing this variation as a limitation, the current initiative seeks to understand it and use it to inform improvements in both the taxonomy and its application.

Approach

The proposed methodology involves a two-step review of all incidents assigned to "Other" from 2024 and 2025:

1. An initial review using a large language model, which will examine each narrative description and propose a potential problem type based on the existing NSIR-RT taxonomy.
2. A secondary review by the project team, which will assess those suggestions and determine whether the event aligns with an existing category, represents an emerging incident type not yet captured in the taxonomy, or falls outside the scope of radiation therapy safety reporting.

This combined approach is intended to balance efficiency with expert clinical judgment, while supporting a clearer understanding of where classification challenges arise, whether from evolving clinical practice, ambiguity in existing definitions, or inconsistent interpretation across centres.

Preliminary Insights

Although the full analysis is ongoing, early observations suggest several themes. Many incidents initially labeled as "Other" appear to align with existing problem types when reviewed in greater detail. Some events do not meet established criteria for RT safety reporting.

In addition, classification decisions frequently reveal confusion between identifying the problem type (the impact on the patient) and the contributing factors (the underlying reasons why the event occurred), a distinction that directly influences the quality and consistency of reporting.

These preliminary insights point to key opportunities: clarifying what constitutes a reportable event, improving shared understanding of incident classification principles, reinforcing the distinction between patient impact and underlying causes, and updating category definitions where appropriate.

EST. 2010
Canadian Winter School
École D'Hiver Canadienne

COMP WINTER SCHOOL 2026

January 28-31 | Ottawa, ON

In January 2026, the Canadian Organization of Medical Physicists is holding its Winter School 2026, themed **"Quality and Safety in the Practice of Radiation Medicine and Medical Imaging: 2010-2025."**

Geared to an audience of medical physicists, radiation therapists, oncologists and dosimetrists, it will offer interactive workshops, expert panels, and collaborative learning designed to explore how practice has evolved and shape what comes next.

Learn more and register at **https://comp-ocpm.ca/ws2026**

NSIR-RT BY THE NUMBERS

In the summer of 2025, CIHI completed an analysis of "Other" category usage in RT incidents submitted after 2022 and prepared a comprehensive analysis. Here are some of the findings.

Calendar year	Number of RT "Other" incidents	"Other" incidents as a proportion of total RT incidents
2016*	386	39.1%
2017**	351	32.6%
2018	211	20.7%
2019	189	17.9%
2020	129	14.1%
2021**	137	13.5%
2022	102	13.3%
2023	144	19.8%
2024	153	16.3%

*Pilot year
** Educational effort

Tracking and reporting safety events in radiation treatment is an important part of delivering high-quality care. Seeing a number of reported incidents doesn't mean care is unsafe — in fact, it shows that teams are paying close attention, learning from every event, and working to prevent future issues.

Incidents very rarely reach the patient, and valuable lessons can be learned from understanding both near-misses and potential harm. A strong safety culture encourages reporting, which helps improve care for all patients.

An initiative of the **pan-Canadian Cancer Data Strategy** (cancer data strategy), this June 2025 webinar explores the pan-Canadian Radiotherapy Data Harmonization Project – a key initiative advancing data-driven cancer care across the country by enhancing interoperability and ensuring various data sets are accessible, ready for analysis and easily linkable.

Topics include:

- An overview of the cancer data strategy and how the **pan-Canadian Health Data Strategy** is modernizing the collection, sharing and use of health information
- National efforts to advance data-informed cancer care across Canada within the cancer treatment space
- Insights from early adopters of radiation therapy standards of TG263 and the more generalized oncology data standard of operational ontology for oncology (O3), and the feasibility and scalability of radiotherapy data harmonization
- Opportunities for cross-jurisdictional collaboration and long-term sustainability in radiotherapy data harmonization

The webinar is a valuable resource for radiotherapy providers, cancer system leaders and administrators, as well as others working to strengthen data linkages and support innovation in data-driven cancer care across Canada.

View the recording now.

A NEW ONLINE HOME FOR CPQR

Following CPQR's transition to a standing committee of CAPCA, all CPQR content is now available at CAPCA.ca. The original CPQR website will be archived by the end of 2025.

To find **technical quality control guidelines,** visit the Resources section of CAPCA's website at **www.capca.ca/resources** and click the box entitled "CPQR TQC guidelines" under Resource type**.**

Past editions of the NSIR-RT Bulletin are also available on CAPCA's website, in the **News & Updates section.**