AN UPDATE ON
THE CANADIAN PARTNERSHIP FOR QUALITY RADIOThERAPY

BACKGROUND

The Canadian Partnership for Quality Radiotherapy (CPQR) was established in 2010 as an alliance among the national professional associations involved in the delivery of radiation treatment: the Canadian Association of Radiation Oncology (CARO), the Canadian Organization of Medical Physicists (COMP) and the Canadian Association of Medical Radiation Technologists (CAMRT). Since then CPQR has established a set of ambitious priorities that support its core objective of ensuring safe and high-quality radiation treatment for all Canadians.

EARLY PRIORITIES

PROGRAMMATIC QUALITY GUIDANCE

Work initiated in 2011 focused on the development of Quality Assurance Guidelines for Canadian Radiation Treatment Programs. Key quality indicators (KQIs) contained within the guideline outline benchmarks for achievement for the organizational structures and processes required to assure high quality and safe radiotherapy. In 2017 many elements of this work were incorporated into Accreditation Canada’s Cancer Care Standards module and are now part of the auditing requirements for national hospital accreditation. Today, CPQR is working with partner CARO to support incremental improvements in compliance against the KQIs through the creation of self-auditing tools, continuing learning opportunities and centre-specific report cards of achievement, all of which will culminate in a fourth version of the guideline in 2019.

TECHNICAL QUALITY CONTROL

A set of technical guidelines that provide direction for assuring minimum performance and safety of radiation treatment equipment and technologies was identified as a second priority for CPQR and efforts to refresh the outdated technical standards developed by the Canadian Association of Provincial Cancer Agencies (CAPCA) commenced in 2010. Development of the initial suite of 16 guidelines, available online, was undertaken by medical physicists at every RT program in the country, a strong indication not only of the importance of this work, but CPQR’s ability to drive coordinated quality improvement activity. Today, CPQR is working with COMP on the creation of a comprehensive self-audit tool to measure local alignment with the tests included in the suite of guidelines and has prioritized the creation of new guidelines for medical resonance imaging (MRI), stereotactic radiosurgery (SRS) and position emission tomography – computed tomography (PET-CT).
Not only has this work had a positive impact on the Canadian RT community but international download trends, requests to allow the suite to be translated, and recent effort by the Canadian medical imaging community to develop guidelines modeled after the TQC suite, suggest a significant return on investment for CPQR and its partners.

NATIONAL SYSTEM FOR INCIDENT REPORTING – RADIATION TREATMENT

CPQR partnered with the Canadian Institute for Health Information (CIHI) to develop the National System of Incident Reporting – Radiation Treatment (NSIR-RT), which builds on the NSIR database currently used to track medication incidents across the country and is now utilized as a tool to report, track and analyze incidents from their local program, and anonymously from other Canadian centres.

To complement the NSIR-RT system and support increased utilization, in 2017 CPQR created a faculty-led online course helping participants investigate local incidents, identify trends through incident analysis and understand the benefits to national reporting. 57 registrants from 9 provinces completed the course, which has since been adapted as an independent study available online. A French version of the course is in development.

In 2018 CPQR launched its new quarterly NSIR-RT Bulletin that provides public-level detail of submitted incidents, and an in-depth look at specific trends found in submitted data. NSIR-RT Bulletins are available online.

NEW AND EMERGING PRIORITIES

Building on the success of its early programs, CPQR established an ambitious plan to further support quality and safety in Canadian radiation treatment programs. Below details the work undertaken since 2017 and the next steps for CPQR.

ACCESS TO CARE – RADIATION TREATMENT UTILIZATION

Assessing radiation treatment utilization (the proportion of cancer patients who receive RT) is a key measure of access and has been calculated regionally in several provinces including BC, Alberta and Ontario. Results from these studies have shown that RT utilization rates fall short of desired utilization benchmarks, currently around 34%. This indicates that the proportion of residents within these provinces who would benefit from RT are not receiving it.

In 2018 CPQR and their stakeholders set out to develop and report on a plan to help understand whether these shortfalls also exist in other Canadian provinces, and to what extent. This work is just the initial step in understanding inequities in access across Canada, barriers to access and ways of improving access. Jessica Chan, a PhD student and radiation oncology resident working under the supervision Dr. Michael Brundage (Queens University) and Dr. Ben Slotman (VU Medical Centre in Amsterdam) will be leading this work. Jessica’s thesis aims to assess disparities in access to RT across Canada, including the Inuit population both in Canada and across the Arctic.
As a first step, Jessica will calculate RT utilization ratios for each Canadian province and conduct a descriptive comparison of such ratios across the country. RT utilization ratios will use the number of RT patients treated as the numerator and cancer incidents as the denominator.

PATIENT REPORTED OUTCOMES

Patient Reported Outcomes (PRO) are recognized as an essential component to assess the impact cancer treatment has on a patient, supporting improved quality of life and survivorship throughout their care journey.

CPQR has undertaken a pan-Canadian scan of PRO programs at RT centres across the country by conducting guided interviews with representatives from each RT program in Canada. Results of this process are being used to inform the creation of a guidance document to support appropriate collection and use of radiation treatment specific PRO. A draft of the guideline is expected to be ready for community review in spring 2019.

Based on outcomes from the guided interview process, the CPQR PRO Working Group is looking at ways to support the consistent use of appropriate PRO measures for RT in Canada. A proposed approach will be integrated into CPQR’s new mandate.

THE CANADIAN BIG RADIOThERAPY DATA INITIATIVE

There is acknowledged to be local, regional and national variation in radiation treatment prescribing practice. This variability, while partially explained by patient-to-patient differences, may be the result of a number of things: historical precedent, practitioner preference, integration of new evidence into clinical practice and regional differences in the availability of treatment technologies and expertise.

The ability to capitalize on this “big data” provides us with an opportunity to measure variability in treatment plans to harmonize practice and improve quality, cancer system performance, population based learning and ultimately patient outcomes. A common nomenclature is critical to big data analysis, and was the focus of the AAPM TG 263 report: Standardizing nomenclatures in radiation oncology. As a first step towards the assessment of radiotherapy data, CPQR has launched the Canadian Big Radiotherapy Data Initiative (CBRTDI). The initiative aims to provide guidance on how to implement standardized nomenclature within Canadian RT programs and how to prepare for pan-Canadian data sharing.

FOR MORE INFORMATION
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