

system and advancements in technology make it imperative for clinical programs, such as the RTP, to proactively identify strategic priorities to improve the quality of care for patients. The objective of this initiative is to develop the first provincial RTP Strategic Plan to define the future state of the program's vision, goals, and strategic priorities to improve the quality of care in Ontario.

**Materials and Methods:** RTP led a mixed-methods strategic planning process that assessed the current and future state of RT in Ontario, through semi-structured interviews with over 130 clinicians, administrators, regional partners, and patient family advisors. An international environmental scan guided the process. Provincial RT operational data were used to understand the current environment and support priority identification. Triangulation of data sources informed the strategic priorities and how the program will define success over the next four years.

**Results:** Preliminary results suggest the mixed-methods strategic planning process was successful in identifying five strategic priorities and associated actions for how the program will advance the quality of care. The identified priorities included understanding and improving integrated wait times (time from diagnosis to first day of cancer treatment), developing an equitable, quality-focused, and sustainable funding model for radiation services, improving access to care in marginalized populations, standardizing peer review of RT plans, and assessing and supporting innovative treatment approaches.

**Conclusions:** The strategic planning process can be effectively applied to the development of a provincial strategic plan to outline strategic opportunities and build consensus and support amongst stakeholders. The process results in identifying a program's desired future state to improve the quality of care for patients.

## 212 PATIENT REPORTED OUTCOMES USED IN RADIATION PROGRAMS ACROSS CANADA

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**Purpose:** The Canadian Partnership for Quality Radiotherapy (CPQR) supports the use of patient reported outcomes (PRO) as an essential component of quality patient care and is committed to developing processes that promote the use of PRO. The overall aim is promote PRO as both a point-of-care tool and a cancer system performance tool in population-based learning.

**Objectives:** To conduct a pan-Canadian environmental scan to determine what PROs are in place; how they are being used; barriers and facilitators to their use and implementation, as well as the potential utility of guidance from CPQR regarding PRO use in the radiotherapy (RT) setting.

**Materials and Methods:** A multidisciplinary PRO Working Group within the CPQR was assembled to provide guidance on the collection and use of (RT) specific PRO measures in radiation oncology programs (ROPs) across Canada both to support local uptake and facilitate pan-Canadian learning and knowledge mobilization. An interview framework was developed by the working group to determine what PRO tools are in use, barriers and facilitators to PRO

use and implementation, and to elicit if centres have an interest in guidance from CPQR on PRO. Semi-structured telephone interviews were held (July to October 2018) with select members of Radiation Oncology Programs across Canada. Participants were identified by members of the CPQR National Quality Advisory Committee as the most knowledgeable individual(s) with regards to the use of PROs within their centre, particularly in the RT setting. Purposeful sampling was done to ensure representation by pan-Canadian geographic region, centre size and academic status. Interviews were held by telephone, audio-recorded and coded for common themes.

**Results:** Interviews were held with individuals from 20 centres across Canada at which time we determined saturation had been reached. Participating centres represented Ontario, Quebec, Atlantic Provinces, Alberta, Manitoba and British Columbia. Use of PROs varies considerably across the country from no current PRO use to PRO use being standard of care for every patient and multiple PROs in place. A total of 13 different PRO instruments were identified and their use within the centre described. A multitude of facilitators and barriers (e.g. lack of resources, patient/physician buy-in, patient burden, IT infrastructure) were reported. All centres expressed a strong desire to learn from other Canadian centres and endorsed guidance from CPQR on the use of PROs in the radiotherapy setting.

**Conclusions:** The use of PROs varies across Canadian Radiation Oncology Programs. The CPQR will continue to take a pan-Canadian approach to support consistent use and expansion of PRO use. Development of a CPQR Guidance Document on Patient Reported Outcomes is underway to inform PRO use and implementation of PROs into clinical care programs across Canada.

## 213 90-DAY MORTALITY AFTER RADICAL RADIOTHERAPY FOR HEAD AND NECK CANCER: A POPULATION-BASED COMPARISON BETWEEN RURAL AND URBAN PATIENTS

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**Purpose:** We previously demonstrated a 3.6% 90-day mortality in patients treated with radical radiotherapy for head and neck cancer. This study assesses whether this rate differs between patients living in rural and urban areas, as we hypothesized decreased access to supportive care services (e.g. speech-language-pathologists, dietitians) in rural areas could result in higher rates of treatment-related death (e.g. dehydration, aspiration pneumonia).

**Materials and Methods:** All head and neck cancer patients treated between 1998-2014, with radiotherapy with or without chemotherapy and/or surgery in British Columbia were included. Two classification systems (Statistics Canada [SC] and Modified Statistics Canada [mSC]) were used to divide patients into rural and urban centres, because of the controversy in which is most appropriate. In SC, rural areas are defined as a population <1,000 and a density of <400 people/km<sup>2</sup> or 1,000-30,000 people with a density ≥400/km<sup>2</sup> and urban areas as population of ≥30,000 or more and density ≥400/km<sup>2</sup>. mSC classifies a population <30,000 as rural and ≥30,000 as urban. Multivariable logistic regression analyses were performed to assess associations between 90-day mortality and rurality and other patient or treatment characteristics.

**Results:** 5,554 patients were included in this study. Median age was 63 years, 76% was male and 77% of patients was treated with ≥60 Gy. According to the SC and mSC definitions, 53% and 68% of patients, respectively, lived in urban centres. Neither definitions were associated with 90-day mortality in univariate or multivariable analyses (SC: OR 0.95, 95%CI 0.68-1.31, p=0.74;