was a doubling in ART rates amongst all RP cases, ranging from 5.4% in 2003-2004 to 11.0% in 2011-2012 (p < 0.001), compared with a doubling in ART rates amongst all RP cases, ranging from 8.5% ± 0.2% (7.9% in 2003-2004, 8.9% in 2010-2011). Consequently, the total proportion receiving RT within 24 months of RP increased from 14.1% in 2003-2004 to 19.8% in 2010-2011 (p < 0.0001).

Conclusions: There was an increase in access to early RO referral post-RP and in ART utilization in Ontario from 2003 to 2012, following publication of key clinical trials and guidelines.

Surveying the Landscape: Congruence of a Provincial Cancer Agency Patient Education Program with National Standards

Paris-Ann Ingledew, Joy Bunska, Angela Bedard, Pamela Dent, Lynne Ferrier, Anne Hughes, Brenda Ross, Amanda Bolderson
British Columbia Cancer Agency, Surrey, BC

Purpose: Patient education interventions are recognized as an essential component of cancer treatment. They improve treatment compliance and decrease anxiety, stress and health care costs. The Canadian Partnership Against Cancer (CPAC) Cancer Patient Education Framework (CEF) recommended that each cancer organization should have an embedded comprehensive cancer patient education program. The CEF defined the essential components of patient education as assessment of learning needs, development of a learning plans, defined delivery methods and evaluation. Unfortunately, many Canadian cancer centres lack identifiable patient education programs, program leadership, and financial resources. In a recent survey, of a provincially coordinated cancer care program, patients identified significant gaps in patient education initiatives. We sought to undertake a provincial review of our current programs, from the perspective of health care providers. By using an established conceptual model from the CEF for interpretation of the results we hoped to identify both strengths and gaps.

Methods and Materials: Between 2013-2015 a multi-phased project was conducted. First, an environmental scan was undertaken to describe current practices in our six provincial cancer centres, associated provincial health agencies and national cancer centres. In the second phase, three focus groups were held. The CEF provided the scaffold for interview question development. In the final phase, themes emerging from the focus groups guided the development and administration of an electronic survey distributed provincially to 254 health care providers (HCP).

Results: The environmental scan confirmed that in comparison to other local, provincial and national health care agencies, there are significant gaps in the existing provincial patient education program. The focus groups identified three major themes of logistical (e.g. methods of educational delivery), intrinsic (e.g. provider knowledge) and extrinsic (e.g. physical space) factors that impacted educational delivery. With respect to the electronic survey, 190/254 HCPs completed it. While 88% of respondents felt teaching was an essential activity, 66% lacked knowledge in effective education techniques. Seventy-two percent of respondents always assessed their patient’s capacity for processing information yet only 17% developed individual patient learning plans. 95% of HCPs felt they lacked time and resources. Only 8% of HCPs reported their teaching or programs were evaluated routinely.

Conclusions: By applying the CEF to analyze a current provincial cancer program, strengths and gaps were highlighted. While many HCPs view patient education as critical to clinical care activities, there are deficiencies in assessment of patient needs, development of learning plans, barriers to delivery and little evaluation of outcomes. These results will help strengthen current provincial delivery methods and may be informative for other cancer centres.

Development of a Quality and Safety Competency Curriculum for Radiation Oncology Residency: An International Delphi Study

Jenna Adelaide1, Caitlin Gillian1, Amanda Caisse2, Carol-Anne Davis1, Brian Liszewski1, Andrea McNiven1, Meredith Giuliani1
1University of Toronto, Toronto, ON 2Dalhousie University, Halifax, NS

Purpose: The purpose of this study was to develop an entry-to-practice quality and safety competency profile for radiation oncology residents to guide training in this area.

Methods and Materials: A list of 1211 potential quality and safety competency items was compiled from a range of international sources, including quality-related course objectives, competency profiles for radiation therapy and medical physics, and other quality-focused organizations such as the World Health Organization and the Canadian Partnership for Quality Radiotherapy. Items that were redundant or beyond scope were eliminated by investigator consensus, generating a refined list of 105 unique potential competency items. This list was subjected to an international two-round modified Delphi process with experts in radiation oncology, radiation therapy, and medical physics. In the first round, each item was individually scored on a 9-point Likert scale to indicate agreement that an item should be included in the competency profile. Items with a mean score of 7.0-9.0 were included, < 4.0 were excluded, and 4.0-6.9 were refined and rescored in Round 2 for inclusion or exclusion in the competency profile following a web-conference discussion. Items ranked for inclusion by > 75% of Round 2 participants were included in the final competency profile.

Results: Fifteen of the 50 invited experts participated in Round 1: 10 radiation oncologists, four radiation therapists, and one medical physicist from 13 centres in five countries. All 105 items were scored in Round 1, resulting in a mean score of 7.0-9.0 for 80 items, < 4.0 for one item, and 4.0-6.9 for 24 items (intermediate group). Certain categories emerged as more controversial, for example: change management, equipment quality assurance (QA), and human factors. Web conference with five of the participants resulted in nine of the 24 intermediate group items updated for content and/or clarity. In round 2, 12 participants rescored all intermediate group items. Ten items were ranked for inclusion by > 75% of participants and the remaining 14 items excluded. The final 90 enabling competency items were organized into thematic groups consisting of 18 key competencies under headings adapted from Deming’s System of Profound Knowledge, specifically: Appreciation for a System (Process, Standardization & Benchmarking, Organizational & Systems Structure, Accessibility, Risk Management), Knowledge of Variation (Incident Management, Patient QA, Equipment QA), Theory of Knowledge (Change Management, Outcomes), Psychology (Human Factors, Quality Culture), and Safety (Radiation Safety, General/Patient Safety).

Conclusions: This quality and safety competency profile may inform minimum training standards for radiation oncology residency programs and assist in CanMEDS2015 implementation. Other relevant professional groups may benefit from the groundwork laid through this process.

The Application of Human Factors and System Engineering in Determining the Impact of Technology on Radiation Therapy Safety

Brian Liszewski1, Victor Wai Lui2, Lisa Di Prospero1
1Odette Cancer Centre, Toronto, ON 2University of Toronto, Toronto, ON

Purpose: Radiation oncology is an increasingly complex discipline. As this complexity grows, however, so too does the risk of medical error and patient harm. The interaction of practitioners, environment and technology is the focus of human