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The purpose of the *Radiation Treatment Program (RTP) Newsletter* is to provide updates on RTP quality projects and highlight current provincial initiatives.

Radiation Safety Officers CoP Announcement

In 2015, Radiation Safety Officers (RSO) from all regional cancer programs came together to develop the RSO Community of Practice (CoP) which focuses on issues pertaining to their practice (*Figure 1*). Following a face to face meeting on June 22nd, the group prioritized key issues which led to the establishment of two working groups:

1. Security Guidelines Working Group- This group is working collaboratively on determining how to best interpret the [new security guidelines](#) from the Canadian Nuclear Safety Commission (CNSC)
2. HARP Liaison Working Group- This group is focused on communicating RSO goals and concerns to the Ministry of Health and Long Term Care as the [Healing Arts Radiation Protection \(HARP\)](#) Act is being revised

For more information regarding the two working groups or additional initiatives/projects that the RSO CoP is leading, please contact [Katharina Sixel](#) (RSO CoP Co-Lead) at or [Carina Simniceanu](#) (CCO Coordinator)

Cancer Centre	Representative Name
Cancer Centre of Southeastern Ontario	John Schreiner
Simcoe Muskoka Regional Cancer Centre	Keith Nakonechny
Stronach Regional Cancer Centre	Ivan Yeung
Odette Cancer Centre	Geordi Pang
Northeastern Ontario Regional Cancer Centre	Konrad Leszczynski
Juravinski Cancer Centre	Joe Szabo
	Joe Hayward
Carlo Fidani Peel Regional Cancer Centre	Raxa Sankreacha
R.S. McLaughlin Durham Regional Cancer Centre	Katharina Sixel
Grand River Regional Cancer Centre	Ernest Osei
London Regional Cancer Program	Craig Lewis
Windsor Regional Cancer Centre	Jeff Richer
Princess Margaret Cancer Centre	Hamideh Alasti
	Robert Heaton
Thunder Bay Regional Cancer Centre	Peter McGhee
Ottawa Hospital Regional Cancer Centre	David Wilkins
Algoma District Cancer Program	Jeff Konieczny

Figure 1. Regional Representation on the Provincial RSO CoP

NSIR-RT Pilot



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

The Radiation Treatment Program (RTP) at Cancer Care Ontario and the Radiation Incident and Safety Committee (RISC) is pleased to announce exciting progress in incident learning for radiation treatment. In September 2015, the Canadian Institute for Health Information (CIHI) launched a pilot project to evaluate and validate the recently developed [National System for Incident Reporting in Radiation Therapy](#) (NSIR-RT).

NSIR-RT was developed by CIHI in collaboration with the Canadian Partnership for Quality Radiotherapy (CPQR). The goals of this national database for radiation treatment incidents include: improving patient safety, improving operational processes and identifying system vulnerabilities.

Entering incidents anonymously into the NSIR-RT will build a database which will be able to help identify national trends in radiation treatment incidents. The system will have the ability to record and analyze local incident trends, particularly as more centres commence entering data into the system. Another exciting feature is the private communication tool which allows one to discuss and learn more about various incidents, without revealing the identities of the specific patients, providers or facilities.

Because all incident data submitted to NSIR-RT remains the property of the reporting centre, centres also have the ability to utilize NSIR-RT as their local incident reporting system, allowing incidents to be submitted to the national database once investigations are complete. In order to facilitate an interface between the NSIR-RT system and the local incident reporting system, CIHI will work hand in hand with centres to develop a transfer schema. In terms of usage time, it takes less than five minutes to submit the complete record which consists of 26 data elements. You can learn more about the pilot, and practice using the NSIR-RT taxonomy, by accessing the [CPQR website](#).

The RTP and RISC are actively supporting the development and evaluation of the national system. Participation of Ontario cancer centres in NSIR-RT will ensure maximum data collection and will result in meaningful analytics for the provincial group. This will enable the use of reported near-miss and actual incident data to identify patient safety improvement initiatives. Most recently, RISC members have been meeting with hospital staff to complete the registration and necessary legal paperwork for participation in the NSIR-RT pilot. Despite progress around the development of the national system, provincial reporting of quarterly data and critical incidents to the RTP will remain unchanged.

For more information around the NSIR-RT Pilot, please contact [Crystal Angers](#) (RISC Co-Chair) at or [Carina Simnecanu](#) (CCO Coordinator).

RADIATION THERAPY

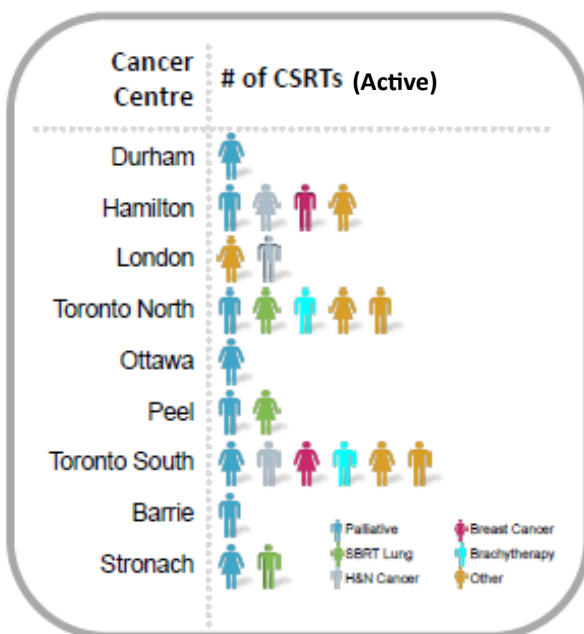
Advanced Practice in Ontario



The Clinical Specialist Radiation Therapist (CSRT) CoP: We are on Twitter!

The Clinical Specialist Radiation Therapist (CSRT) is a new advanced practice radiation therapy role. Currently there are 24 active positions in 9 regional cancer centres in the province (*Figure 2*). CSRTs are able to assume responsibility for certain key radiation medicine activities traditionally performed by radiation oncologists, while maintaining and improving access to care, patient experience, implementing quality initiatives and increasing capacity. The CSRT Community of Practice (CSRT CoP) came together to build relationships and networks amongst the CSRTs and showcase this exciting new role provincially.

One of the activities that the CSRT CoP has been working towards is the development of a social media presence, which will allow CSRTs to interact with other advanced practice roles and models that have been developed worldwide. One pivotal milestone within this work is the development of the [@AdvPracticeRT](#) Twitter account. Be sure to follow [@AdvPracticeRT](#) for information around relevant conferences and publications, various CSRT announcements and many other items of interest!



For more information on the CSRT CoP, please contact [Michelle Lau](#) and [Laura D'Alimonte](#) (CSRT CoP Co-Leads), or [Carina Simniceanu](#) (CCO Coordinator)

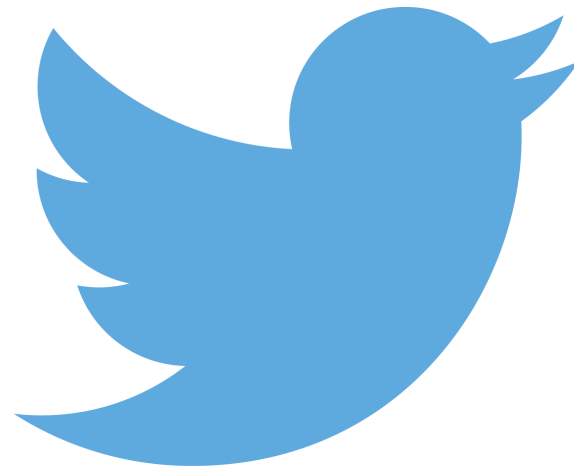


Figure 2. CSRT Distribution Across Ontario

Evolving Practice >>>>

Evolving Practice is a new and ongoing series that explores the ways in which Canadian MRT practice is being shaped by innovation and change.

The first installment of Evolving Practice presents a profile of Grace Lee, a radiation therapist working in one of the advanced practice clinical specialist radiation therapist (CSRT) roles created through an initiative in Ontario.

ADVANCED PRACTICE IN RADIATION THERAPY: EXPERIENCES OF A CSRT

Submitted by Grace Lee, RTT, BSc, CMD, MHSc

I am fortunate to be in one of the first clinical specialist radiation therapist (CSRT) positions within Ontario. When the CSRT project started in 2007, I was in a 50/50 planning/research position at the Princess Margaret Cancer Centre. My clinical and academic activities were split between breast, lung and upper GI treatment planning and in research and treatment planning for a partial breast irradiation study. These unique exposures to breast cancer treatment planning, research and process development served as the foundation upon which I furthered my career development as the breast site CSRT.

In 2007, I accepted the "Patient Assessment and Symptom Management" CSRT position within the breast team of the Radiation Medicine Program. I was very fortunate to work with various radiation oncologists, medical physicists, nurses and other allied health care professionals who helped to expand my clinical role. The site-specific education, supervised clinical practice, and simulated learning offered by Drs. Robert Dinniwell and Pamela Catton allowed me to attain various advanced clinical and planning competencies outside of the traditional MRT scope of practice. Using these newly developed skills and knowledge, I progressed in a graduated fashion to function autonomously in the assessment and management of patient side effects during RT weekly reviews. I was further encouraged by my supervisors to conduct studies of these new roles to validate my clinical competence. In 2011, our manuscript titled "Radiotherapy Treatment Review: A Prospective Evaluation of Concordance Between Clinical Specialist Radiation Therapist and Radiation Oncologist in Patient Assessments" was awarded the CAMRT Dr. Petrie Memorial Award and sub-

sequently selected as the Editor's Choice (Article of the Year) for 2012 by the Editorial Board of the *Journal of Medical Imaging and Radiation Sciences*. These awards not only demonstrate the success of inter-professional collaboration between the radiation oncology and radiation therapy disciplines but are also testaments of the interest and support from the CAMRT in advanced practice roles in our profession.

My role in seroma target delineation for selected early breast cancer patients also led to an opportunity to co-lead the QuickStart breast radiotherapy program. Through this program, patients start their RT treatment within 24hrs following their CT simulation. Within this treatment process, I contour the cavity target for radiation oncologist review to expedite the planning process, thereby allowing the successful implementation of this rapid treatment process since 2010. More recently, we further investigated the CSRT contouring role such that I can direct non-complex cavity contours to the planners for immediate planning. This helps to avoid wait times for radiation oncologist contouring in selected patients. The results from this study were presented at the CARO annual conference held in Kelowna.

In my current CSRT position, I am involved in new breast cancer patient consultations, assessments during their weekly RT treatment review, and later in follow up. I think the most exciting and rewarding part of my role is the ability to act as the patient's person of contact and provide care at different points in their cancer journey. Being able to work within a multidisciplinary team allows me to learn from other medical professionals, which deepens my appreciation of the need for life-long learning.

I would conclude by encouraging other MRTs who are interested in expanding and/or advancing their practice to never stop learning. Those seemingly routine "lunch & learns" may often provide the solution for a patient problem you encounter tomorrow. And of course, if you are serious about furthering your career as an advanced practice MRT, a strong academic foundation through graduate course work will no doubt open doors to numerous opportunities and facilitate your further professional development.



More on the CSRT roles in Ontario

One of the most exciting evolutions to occur in Canadian MRT practice over the past few years has been the creation of the clinical specialist radiation therapist (CSRT) role. This advanced practice role in radiation therapy came into being through a 10-year partnership between the Ministry of Health and Long Term Care in Ontario and Cancer Care Ontario and its regional cancer centres.

Beginning as a pilot study in 2004, there are now 25 CSRT positions across Ontario in 10 out of 14 of the province's cancer centres. Data show that CSRTs have contributed to important improvements to the patient experience: increasing the number of new patients seen in clinic; creating savings in radiation oncologist time (that can be redirected to other, more complex activities); and, enhancing practice overall through contributions to research innovation and knowledge translation.

All CSRT roles are built to reflect a profile comprising advanced clinical, technical and professional competencies that was validated nationally by the CAMRT in 2013. Based on the experiences and learnings of the members of the CSRT Projects, the CAMRT is creating an Advanced Practice Radiation Therapist Certification process, and it is hoped that the solid framework for new role development created in Ontario can be shared in other provinces for radiation therapy, and eventually beyond radiation therapy to other disciplines of the CAMRT.

The Radiation Therapy Community of Practice

Following a critical patient injury at a cancer centre, the Radiation Therapy Community of Practice (RThCoP) collectively decided that the implementation of patient safety straps, to prevent patient falls from elevated treatment beds was a provincial priority. In response, the RThCoP developed a recommendation report entitled [“Implementation Strategy for Radiation Therapy Safety Straps”](#). The timeline below (Figure 3) provides a detailed overview of the key initiatives leading up to the finalization of the recommendation report.

In collaboration with the Radiation Therapy Professional Advisory Committee (RTPAC), the recommendation report was created with the following overall objectives:

- to promote and support the implementation of safety strap use at all regional cancer centres (RCCs);
- to promote patient safety;
- to demonstrate and clarify the distinction between safety straps and patient restraints; and
- to provide a framework for staff training and patient education on the use of safety straps

Since this initiative began, safety straps have been implemented in 12 RCCs, with partial and planned implementation at two other centres.

This report is a result of a tremendous amount of work by the RThCoP, in collaboration with the RTPAC, and

What are Safety Straps?

Safety straps are **removable** straps designed to **protect patients from falls** from elevated treatment beds.

Straps are able to be self-removed, and are provincially endorsed by the RThCoP and RTPAC

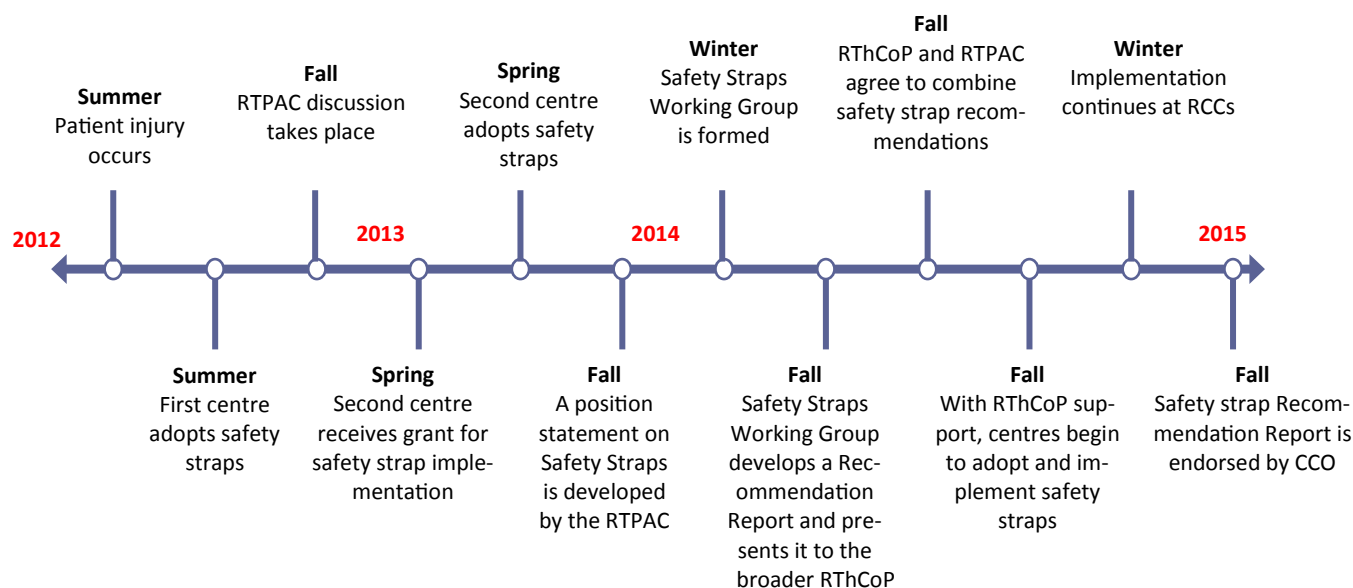


Figure 3. Timeline of key activities leading up to Safety Strap Recommendation Report

Access to Radiation Therapy: Ensuring that Patients who Need Treatment, Receive it

Radiation therapy (RT) plays an essential role in the management of cancer by contributing to the cure of many patients, or by controlling symptoms of patients with advanced cancers. It is essential that all Ontario patients who may benefit from this treatment are able to access this service, and that observed variability in accessibility of RT across the province is reduced. In response, the Radiation Treatment Program (RTP) prioritized this initiative, developing annual radiation utilization rates and benchmarks to assist programs in identifying areas of improvement.

In the fall of 2015, Local Health Integration Network (LHIN)-specific reports were created by the RTP utilization project team, using data from the Ontario Cancer Registry (OCR). Annual utilization data was determined and broken down to utilization rates by LHIN, diagnosing hospitals and disease sites. Utilization rates are compared to provincial benchmark targets, and translation of

The *benchmark rate* of RT reflects the rate of RT observed in patients who were diagnosed in a hospital where RT was available on site. The benchmark rate is the best estimate of the most appropriate rate of RT utilization in Ontario.

The benchmark provincial annual utilization rate:

33.6%

Observed provincial rate:

29.9%

Standardized Utilization Rates

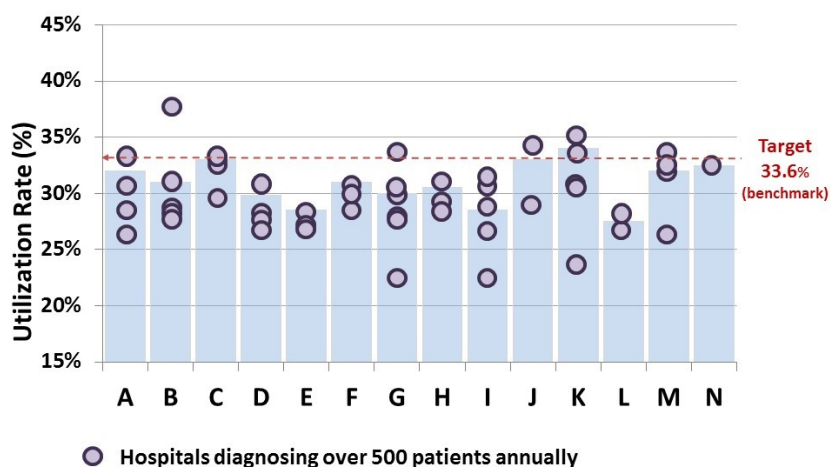


Figure 4. Variation noted amongst LHINs in annual utilization rates. Individual hospitals shown by circles

shortfall to patient numbers is provided in the report, so that regional vice-presidents (RVPs) and administrators may observe the actual calculated number of patients affected and determine strategies for local improvement (Figure 4). At a provincial level, this shortfall correlates to approximately 2500 patients who would have benefited from RT that did not receive it.

Reports were shared with RVPs, regional leads and department heads in the fall for analysis with an offer of additional support from the RTP to provide presentations or conduct site visits to further expand on this discussion.

Annual utilization rates differ from the *lifetime* utilization rates reported on the [Cancer System Quality Index \(CSQI\)](#).

Annual rates reflect the proportion of patients who receive radiotherapy (RT) **within the first year of diagnosis** of a new cancer.

For more information about annual utilization rates or the LHIN-specific reports, please contact Michelle Ang at Michelle.Ang@cancercare.on.ca

Updates from our Centres

Staffing News

- **Dr. Paul Genest** is retiring after working as a radiation oncologist for over 30 years. **Jason Sutherland** successfully completed his medical physics residency program and joined the Ottawa Hospital Medical Physics team. (*Ottawa*)
- **Dr. David Shultz** has been appointed as the new Staff Radiation Oncologist – Clinician Investigator at the Radiation Medicine Program (RMP). Dr. Shultz is also appointed as Assistant Professor in the Department of Radiation Oncology, Faculty of Medicine, University of Toronto (U of T). Dr. Shultz's clinical focus will be in the CNS and Sarcoma Site Groups. (*PMH*)
- **Dr. Jennifer Croke** has been appointed as a new Staff Radiation Oncologist – Clinician Investigator. Dr. Croke is also appointed as Assistant Professor in the Department of Radiation Oncology, Faculty of Medicine, U of T. Dr. Croke's clinical focus will be in the Breast and Gynecology Site Groups. (*PMH*)
- **Dr. Jim Brierley** has been appointed the position of Endocrine Group Leader. In this position, Dr. Brierley will lead the Endocrine Group's clinical and academic programs, and will represent the Endocrine Group at the Cancer Committee. (*PMH*)
- **Dr. Jolie Ringash** has assumed the position of RMP GI Site Group Leader, succeeding Dr. John Kim. (*PMH*)
- **Dr. Tiffany Tam** welcomed the birth of twin boys, Sebastian and Mateo, on June 12. All are doing well! **Dr. Oluwabunmi (Bunmi) Oganudimu** joined the team as a locum, covering Dr. Tiffany Tam while she is on leave. (*Simcoe Muskoka*)
- **Monique Stuve**, the program's first physics student, started a 4 month rotation in September. (*Simcoe Muskoka*)

Awards and Academic Achievements

- Over 17 abstracts/posters highlighting program work from **Ottawa** were showcased at the Canadian Association of Radiation Oncology (CARO) Annual Conference in Kelowna in September 2015. (*Ottawa*)
- **Dr. Mary Gospodarowicz** has been appointed as an Officer of the Order of Canada. The Order of Canada is one of Canada's highest civilian honours, established in 1967, "recognizing outstanding achievements, dedication to the community, and service to the nation". (*PMH*)
- **Dr. Meredith Giuliani** received the Top Clinical Abstract Poster Award for "*Predictors & Patterns of Regional Recurrence Following Lung SBRT*" at the 3rd Annual European Society for Radiotherapy & Oncology (ESTRO) Forum. (*PMH*)
- **Dr. Robert Bristow and his colleagues** have published another land-mark paper (*Nature Genetics* 47, 736–745, 2015) on the clonal heterogeneity of prostate cancer, demonstrated through whole genome sequencing of small formalin-fixed paraffin-embedded biopsy specimens. (*PMH*)
- **Dr. Fei-Fei Liu** was awarded the CCSRI Innovation Grant for her project entitled "Epigenetic Reprogramming of Radiation Fibrosis Using Adipose-Derived Stromal Cells". (*PMH*)
- **Dr. Kathy Han** was awarded the RSNA Research Scholar Grant for her project entitled "The Potential for Metformin to Improve Tumor Oxygenation in Locally Advanced Cervix Cancer: A Phase II Randomized Trial." (*PMH*)
- **Dr. Michael Sharpe** was elected as a Fellow of the American Association of Physicists in Medicine, which honours members who have contributed greatly to research, education or leadership in the medical physics community. (*PMH*)
- The **Northeast Radiation Program** received an Honourable Mention for 2015 CQCO Innovation Award for their work around image-guided SABR treatment. (*Sudbury*)

CCO RTP Updates

- Congratulations to **Lindsay Reddeman**, RTP Senior Analyst, who started medical school at the U of T this Fall. Many thanks to Lindsay all of her contributions to the RTP. Congratulations to **Michelle Ang** who was promoted to Senior Specialist with the RTP in the summer. Also, welcome to **Carina Simniceanu**, Specialist, who joined the Program in October.
- Many thanks to **Eric Gutierrez** for his leadership as the Interim Director, Diagnosis and Treatment, since May 2015. We look forward to his continued leadership as Manager, RTP. **Elaine Meertens** started as the Director, Diagnosis and Treatment in October 2015.

Updates from our Centres (Continued)

Staff/Program Impact and Updates

- **To improve transitions in care and patient experience**, Grand River Regional Cancer Centre (GRRCC) **piloted and implemented follow up phone calls** made by radiation therapists to patients within the first week of finishing radiation treatment. Surveys of patients that participated in the pilot project demonstrated 100% satisfaction with their experience. (*Grand River*)
- The Ottawa Hospital Radiation Medicine Program treated the **1000th patient on Cyberknife** this past summer. Cyberknife has been in use in Ottawa for over 5 years now. (*Ottawa*)
- **Safer radiotherapy practices** were rolled out recently at The Ottawa Hospital:
 - **Suzanne Comino**, one of the MRT(T) clinical application specialists in Ottawa, has led the implementation of barcode scanning at the treatment unit to verify patient and site treated on all of the linacs
 - **Carol Burnie, MRT(T)**, is championing a pilot to introduce secondary sets of lasers for patient positioning at a lower level to reduce the risk of MRT(T) injuries. **Dr. Balazs Nyiri**, and machinists **Bernie Lavigne** and **Ron Romain** have supported the radiation therapy team in this as well.
- **“Rads4Kids”** application is a Paediatric Radiation Therapy App for kids and parents that is now officially available on the Apple App Store. The “Rads4Kids” application is created jointly by **Susan Awrey, Ryan Hyvarinen, Caitlin Gillan, Angela Cashell, Leanne Brister & Dr. Normand Laperriere**. (*PMH*)
- The Sarcoma Site Group led by **Dr. Brian O’Sullivan**, hosted the **first multi-institutional Regional Sarcoma Quality Assurance Rounds for Radiation Therapy (RT QA Rounds)**. Implementation and coordination of these rounds has been led by **Colleen Dickie**. This initiative is part of a provincial plan developed by Cancer Care Ontario, in collaboration with a steering committee consisting of regional, clinical and patient representatives. (*PMH*)
- Novel joint **SBRT peer review QA rounds** with Odette Cancer Centre, using OTN, were initiated. (*Simcoe Muskoka*)
- The process of installing a **4th Linac (Elekta Agility)** is underway. It is expected that the new unit will become clinical early in 2016. Subsequent to the new Linac going live, each of the three existing Elekta Infinity units are to be retrofitted with new Agility heads as well. (*Southlake*)
- Odette Cancer Centre participated in the evaluation of **Accreditation Canada’s draft Cancer Care Standards**. Accreditation Canada partnered with the Canadian Partnership Against Cancer (CPAC) to revise the Cancer Care standards and add content specific to radiotherapy. The standards were developed in partnership with a working group comprised of pan-Canadian experts with representation from the Canadian Partnership for Quality Radiotherapy (CPQR). Feedback on the draft standards was solicited from health care organizations, surveyors, provincial health ministries, and other relevant stakeholders, for input and incorporated into the Cancer Care Standards which will be released January 2016 for accreditation surveys starting January 2017. For more information, please contact **Brian.Liszewski@sunnybrook.ca**

We want to hear from you! Please send your ideas for RTP Newsletter Spotlights and Updates and your feedback to RTP@cancercare.on.ca

If you have any questions about the content of this newsletter or about the RTP, don't hesitate to contact us. You can reach us by sending an email to our general mailbox (rtp@cancercare.on.ca) or contacting us individually.

Dr. Pdraig Warde
RTP Provincial Head
Pdraig.Warde@cancercare.on.ca

Eric Gutierrez
RTP Program Manager
Eric.Gutierrez@cancercare.on.ca

Elizabeth Lockhart
RTP Team Lead
Elizabeth.Lockhart@cancercare.on.ca

Michelle Ang
RTP Senior Specialist
Michelle.Ang@cancercare.on.ca

Carina Simniceanu
RTP Specialist
Carina.Simniceanu@Cancercare.on.ca

Helene Buwalda
Executive Secretary
Helene.Buwalda@cancercare.on.ca