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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.

Dr. Michael Sharpe Tribute

We would like to start off the 2016 Radiation Treatment Program (RTP) Summer Newsletter with a tribute to Dr. Michael Sharpe who joined CCO's Radiation Treatment program as the Physics Clinical Quality Lead (CQL) in April 2012 up until his passing on June 22nd, 2016. Mike's legendary sense of humor, passion for his work and dedication to the role will be missed by the RTP. The RTP wanted to take this opportunity to highlight some of Mike's many accomplishments over the years as physics CQL and how his work has helped to standardize practice, inform provincial policy, and improve the quality of care for patients receiving radiation treatment. Here are some of Mike's many achievements as the physics CQL:

- Lead the development of a provincial guidance document for **data retention** in Radiation Oncology;
- Identified a provincial need for a **Radiation Safety Officer (RSO) Community of Practice (CoP)**, which is a forum used by RSOs across the province to identify key quality issues related to radiation safety and compliance with security guidelines;
- Developed and lead the **Physics CoP** which works towards the standardization of physics practice in Ontario to ensure all cancer patients benefit from the highest quality of care;
- Collaborated on the **peer review** initiative between disciplines at the inter- hospital level; and
- Advised the RTP on the role of **proton therapy** for specific clinical indications and contributed to several policy documents including a white paper on access to proton therapy for patients in Ontario.

The RTP is very grateful for all that Mike has contributed to the program. Our deepest condolences to Mike's colleagues, friends and family.



CSRT Project Summative Report

In 2004, the Ministry of Health and Long Term Care (MOHLTC) funded a two-year development project to assess the feasibility of implementing a novel model of care that would be facilitated by the development of a new health care provider role – the advanced practice radiation therapist (APRT). Numerous challenges threatening the ability of the radiation treatment sector to keep pace with cancer care needs of Ontario's patients had been identified and the MOHLTC was seeking innovative strategies to mitigate these threats. The success of that two-year project served as a springboard for a 10-year series of projects (2007-2016) that began with the announcement of funding for the development and pilot testing of the Clinical Specialist Radiation Therapist (CSRT). CSRT was the title given to professionals practicing in an advanced capacity in radiation therapy in Ontario.

In May of 2016, the final CSRT summative report was submitted to the MOHLTC and subsequently shared with the project's regional stakeholders and partners. The report includes the 2015/16 CSRT evaluation data along with a comprehensive overview of the project's 12 year trajectory. Overall, the report highlights how the CSRT-mediated model can increase patient access, improve quality of care, and improve the health system in a cost-effective and sustainable way. The following six sections are contained within the report:

WHY	Highlights the state of the radiation therapy sector leading up to the inception of the CSRT Project.
WHO	Highlights the steps taken to describe advanced radiation therapy practice and to validate the defined scope of practice. Characterizes what this new health care provider role would look like and what they would do within the radiation treatment domain.
HOW	Kotter's "Process for Leading Change" is used to describe the work of the project teams over the Demonstration and Sustainability/Integration phases of the Project.
SO WHAT	Presents the accumulated body of evidence collected over the course of the CSRT Project.
CONCLUSIONS & FUTURE WORK	Summarizes the work of the CSRT Project Series and presents points for consideration as efforts to ensure the integration of the CSRT role continue.
APPENDIX	Contains a range of enduring educational tools and resources which can be utilized by other jurisdictions to implement advanced practice roles.



CLINICAL SPECIALIST RADIATION THERAPIST (CSRT) PROJECT

Summative Report May 2016



The summative report will be made available via the Radiation Treatment website in the coming months. However, if you would like to request a copy, please reach out to [Carina Simniceanu](#). For questions regarding the CSRT project and summative report, please reach out to [Nicole Harnett](#) (CSRT Project Manager) and [Carina Simniceanu](#) (CCO Lead).

Updates from the Gynecological Cancers Community of Practice



The Gynecological Cancers CoP has moved several initiatives forward over the 2015-16 year, including advocating for, and facilitating through CCO, representatives from each cancer centre to the joint CARO-ESTRO Image Guided Radiotherapy in Gynecological Cancers course, held in April 2016.

The GynCoP has teamed up with the Centre for excellence in Economic Analysis Research (CLEAR), ESTRO and various Ontario Cancer Centres to develop an MR utility analysis, examining the quality of life and value for money associated with MRI guided brachytherapy in the treatment of locally advanced cervical cancer. Work is underway to develop this analysis by this fall 2016.



For more information on the GynCoP, please contact Michelle Ang, Senior Specialist, Radiation Treatment Program (Michelle.Ang@cancercare.on.ca)

Radiation Oncology Peer Review Quality Assurance Project Update

Performance from 2015/16

The target of 75% of radical intent radiation treatment courses to be peer reviewed has been achieved provincially, with final 2015/16 numbers reaching 76.5%. Variation in performance regionally still remains, and several data quality challenges have been identified. In order to target these issues, **the provincial target for 2016/17 will remain at 75%.**

What's Next in Peer Review?

Focus over the next year will shift to supporting the implementation of palliative radiation treatment plans, as well as continued efforts to develop site-specific guidelines for Peer Review.

"[Ontario] are leaders in the study of peer review, and we applaud them for their continued work. In this contribution, they successfully take on the challenge of systematically improving the quality of radiotherapy in their province"

- Chera, B. et. al. [*The Promise and Burden of Peer Review in Radiation Oncology JOP March 2016 vol. 12 no. 3 196-198*](#)

What did we accomplish this year?

- **November 2015:** The Provincial Peer Review Project Meeting was held in Toronto to gain feedback into the project thus far, and to solicit input on next priorities
- **January 2016:** The following [paper](#) was published on the jurisdictional approach used to implement Peer Review in Ontario
- **April 2016:** Public reporting of 2015/16 Peer Review activities continued through [CSQI](#)

For more information on the Peer Review Quality Assurance Project, please contact Michelle Ang, Senior Specialist, Radiation Treatment Program (Michelle.Ang@cancercare.on.ca)

Updates from the Chart Checking Practices Working Group

The physics plan check is a critical factor in ensuring safe high-quality radiation therapy. Like any process, it is desirable that the chart check for a given patient be standardized and documented in order to ensure a high quality, efficient and uniform process. However, there is little documentation or recommendations as to what is or should be included in a physics plan check. Moreover, the specific components of a chart check are rarely laid out in a comprehensive way. Anecdotal evidence suggests that the practice of plan checking is highly variable, even amongst physicists within the same centre.

As there is a lack of common understanding of what is included in a physics check and how it is conducted, the Physics Community of Practice (CoP) Chart Checking Practices Working Group has been investigating provincial external beam physics chart checking processes. As part of this investigation, the Working Group surveyed all of the cancer centres in early 2015 around current chart checking practices. Following the analysis of the collected survey responses, a report was developed by the working group which summarizes the information from all participating centres. The goal of the report is to present the



Cancer Care Ontario

Current Practices of Medical Physics External Beam Plan Checking

*Results of a survey conducted by the
Medical Physics Community of Practice (CoP) Chart Checking Practices Working Group*

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survey results in an unbiased manner, which will hopefully lead to fruitful discussions and reviews within the distinct medical physics teams across all cancer centres. These results may ultimately help craft

Please reach out to [Carina Simniceanu](#) to request a copy of the [Current Practices of Medical Physics External Beam Plan Checking Report](#).

Should you have any questions or comments around the report or the Working Group, please reach out to [Greg Salomons](#) and [Keith Nakonechny](#) (Working Group Leads) or [Carina Simniceanu](#) (CCO Lead).

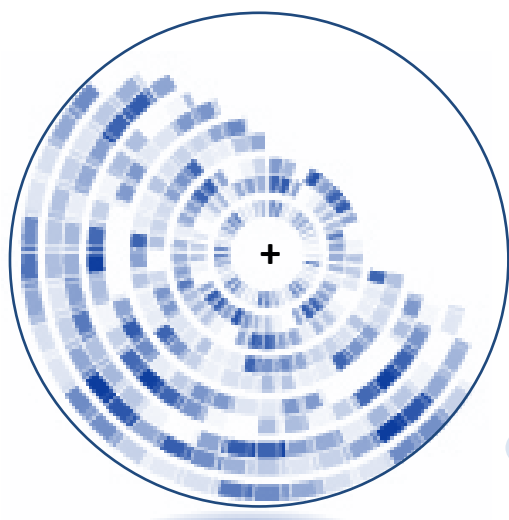
Protons

There is increasing evidence which demonstrates the potential for Proton Beam Therapy (PBT), to reduce damage to normal tissues adjacent to cancers. This is especially true in the management of paediatric cases and in a small number of adult patients.

As the only G7 country not to provide PBT, Cancer Care Ontario's Radiation Treatment Program (RTP) is working closely with the provincial and federal Out of Country (OOC) branches to ensure patients in Ontario receive timely access to high quality PBT in a manner that is patient and family centred, coordinated, and cost effective.

Current work initiatives include:

- Completion of a white paper, horizon scan and briefing note on the current state of PBT;
- Establish a rapid access process to treat pediatric patients with medulloblastoma in the U.S. with radiation treatment and form an expert panel to review cases; and
- Generate a set of requirements in the form of a Preferred Provider Agreement (PPA) to inform the MOHLTC.



For more information, please contact Elizabeth Murray, Team Lead, Radiation Treatment Program
Elizabeth.Murray@cancercare.on.ca

MR Guided Brachytherapy: Updates from the Odette Cancer Centre

The installation of the MR guided brachytherapy suite at the **Sunnybrook Odette Cancer Centre** is slated to be complete by the end of August, 2016. This represents the culmination of years of significant effort and investment on behalf of CCO, Sunnybrook Health Science Centre and Sunnybrook Research Institute. During this period, the OCC staff have been able to continue to deliver exceptional care to brachytherapy patients in spite of the cramped quarters and constant construction. Once complete the innovative OCC installation will contain an interventional MR suite, fully equipped MR simulator, as well as shielded brachytherapy bunker.

This installation will help OCC provide increased access to MR guided radiation therapy for both external beam planning as well as brachytherapy for our patients in Ontario. Additionally, the MR guided brachytherapy suite is co-located with the current brachytherapy suite at OCC; thereby, enabling a dramatically reducing the time for an image guided cervix brachytherapy procedure from 6 to 9 hours to less than 3 hours. Lastly, the installation of the dedicated MR simulator marks the initial stages of building the MR guided external beam therapy program, which will include the installation of the MR linear accelerator scheduled to be begin in the fall of this year.

The following links are panoramic images of the MR brachytherapy suite at various stages of the construction project.

First phase prior to the installation of lead (April 19th, 2016): <https://goo.gl/photos/nvTCbY3PLttt92qb9>

Second phase as lead is being installed (June 3rd, 2016): <https://goo.gl/photos/LXFX2f4SReRBGLp18>

*Authored by: **Ananth Ravi**, PhD, MCCPM Deputy Head of Medical Physics, Clinical Operations Lead of Brachytherapy, Sunnybrook Odette Cancer Centre & Assistant professor, Department of Radiation Oncology, University of Toronto Affiliate Scientist, Sunnybrook Research Institute*



H&N CoP Update

The Head and Neck CoP are finalizing several initiatives for 2015/16, and have started two new initiatives as identified at the December 2015 annual in person meeting.

The HN CoP working groups are in the process of finalizing the following two initiatives:

- **Standardized IGRT Processes:** examining variation in HN IGRT practice across Ontario and providing recommendations for standardizing IGRT protocols/processes, based on available evidence and clinical consensus.
- **Local HN Peer Review Practices:** developing a framework for HN local peer review QA processes.

The two new HN CoP working groups have begun work on the following two initiatives:

- **Re-planning Guidance:** conducting a current state analysis to establish criteria for re-planning guidance in order to form a consensus document.
- **HN RT Plan Library:** The purpose of this group is to develop a downloadable library of DICOM example cases with optimized dose distributions that can be worked through, along with written material, to provide training cases for new staff who simulate and plan head and neck cases.

For more information on the H&N CoP, please contact Elizabeth Murray, Team Lead, Radiation Treatment Program Elizabeth.Murray@cancercare.on.ca

Updates from our Centres

Awards and Academic Achievements

- **Dr. Mary Gospodarowicz** was awarded the 2016 Canadian Cancer Society Research Institute (CCSRI)'s O. Harold Warwick Prize. The O. Harold Warwick Prize is named after Dr. Warwick, a pioneering researcher in cancer control and treatment, who was the first Executive Director of both the former National Cancer Institute of Canada and the Canadian Cancer Society. Dr. Gospodarowicz is the first Radiation Oncologist to receive this award and was recognized for her outstanding research achievements in cancer control (*PMH*)
- Congratulations to **Nicole Harnett** who was named the recipient of the CAMRT Life Member Award, designed to honour a member of the CAMRT whose professional activities have promoted the MRT profession nationally or internationally, whose leadership serves to motivate others to become involved in professional activities, and who has been involved in raising the profile of the CAMRT (*PMH*)
- Congratulations to the **Northeast Cancer Center, Health Sciences North & Algoma District Cancer Program, Sault Area Hospital** who received an Honourable Mention for 2015 CQCO Innovation Award for their Real-Time Remote CBCT image assessment and approval at a Satellite Cancer Clinic: Image Guidance in Stereotactic Ablative Radiotherapy (SABR) treatments. Team members include: Daniel Provost, Jeff Konieczny, Konrad Leszczynski, Michelle Hunter, Mike Oliver, Denise Blanchette, Sarwat Shehata, Andrew Pearce, Andrew Chiang, Ryan Carlson, Louise Beausoleil, Shuying Wan, Xiaofang Wang, Tai Yeung, Renee Roy, Rebecca Fabilli, Huan Yu, Laurie Stillwaugh, Julie Bowen, David Want (*NEORCC*)
- The 9th Edition of UICC Manual of Clinical Oncology (MCO) was launched in October 2015. MCO is a 3-year global collaborative effort by **Dr. Brian O'Sullivan** (Editor-in-Chief), **Dr. James Brieley** (Editor), **Sophie Huang** (Editorial Coordinator), content contributors from RMP including: **Dr. Mary Gospodarowicz, Dr. David Jaffray, Dr. Richard Tsang, Dr. Caroline Chung, Dr. Meredith Giuliani, Dr. Andrew Hope, Terry Michaelson** and **Danielle Rodin**, and other contributors from Princess Margaret (*PMH*)
- **Sandra Scott**, was awarded the 2015 Gerald Kirsh Humanitarian Award in November. This award recognizes UHN staff who provide excellent patient care with a special human touch. This year, three other RMP staff were also nominated for this award including: **Dr. John Waldron, Kevin LeNeve**, and **Tatiana Ritchie** (*PMH*)
- **Dr. Meredith Giuliani** was awarded the 2016 Canadian Medical Association Award for Young Leaders. This award recognized and celebrates the efforts of young physician leaders who have demonstrated exemplary dedication, commitment and leadership in the political, clinical, education, research, or community service domains (*PMH*)
- **Dr. Jean-Pierre Bissonnette**, was awarded the Wightman-Berris Academy Award in May 2016, in recognition for his immense contributions as the Director of the Medical Physics Residency Program at the University of Toronto – Department of Radiation Oncology (2007-2016); his excellence in teaching at PM-RMP's IGRT and Quality & Safety Courses; as well as his research in simulation-based education in Radiation Medicine (*PMH*)
- **Dr. David Jaffray**, was elected as a Fellow of the American Association of Physicists in Medicine (AAPM), in recognition of his distinguished contributions to the field of Medical Physics (*PMH*)
- **Dr. Tim Craig, Dr. Alejandro Berlin**, and **Dr. Rachel Glicksman** were the recipients of the 2016 Abbvie CARO Uro-Oncologic Radiation Awards (*PMH*)
- **Dr. Huan Yu** and her colleagues (**Dr Konrad Leszczynski**, NECC and **Dr Arjun Sahgal**, OCC) have published an abstract entitled "A New Approach for MR-only Treatment Planning: Tissue Segmentation-based Pseudo-CT Generation using T1-weighted MRI" at the 4th MR in RT Symposium held at Ann Arbor, Michigan. This is the result of a multiple center clinical study of this new developed method – one key step for applying MR-LINAC technology with collaboration among Northeast Cancer Center, Algoma District Cancer Program, and Sunnybrook Odette Cancer Center (*OCC*)
- Three radiation therapists completed CAMRT MRI Certification at JCC. Congratulations to dually certified therapists and MRI Technologists: **Nozipho Sithole, Keith Morgan** and **Michael Osei-Wusu** (*JCC*)
- The four Hamilton Clinical Specialist Radiation Therapists (CSRTs) are developing and expanding their practice. Congratulations to **Julie Blain**, Bone Mets CSRT, and **Emilia Timotin**, Brachytherapy CSRT for successfully completing their masters degree. **Lilian Doerwald-Munoz**, N&N CSRT, participated in the CAMRT APRT Certification Process. **Michele Cardoso**, Breast CSRT, now provides Lymphodema Teaching Sessions (*JCC*)
- **Emily Ho**, MRTT, in Hamilton, will be presenting research at the ASRT Conference in Boston, entitled "Can Empathy Be Taught in Radiation Therapy?" Co-authors: **Emily Stief, Marcia Smoke, Tom Farrell**, Ph.D (*JCC*)

Updates from our Centres (Continued)

Program Impact and Updates

- **Southlake Regional Cancer Centre's** fourth linear (Elekta Agility) accelerator went clinical in February 2016, and the process of upgrading the existing three Elekta Infinity Linacs with Agility heads is currently underway (*SRCC*)
- **Southlake Regional Cancer Centre** has had clinical implementation of SBRT techniques for oligometastatic disease of the bone, non-liver abdomen and liver, as well as clinical implementation of gated Active Breathing Coordinator v3 (*SRCC*)
- **Juravinski Regional Cancer Centre's** new MRI Simulator has been operational for over a year, and more than 600 patients have been scanned. Numerous imaging protocols specific to radiation therapy have been designed (*JCC*)
- The Radiation Therapy program in **Juravinski Regional Cancer Centre** has implemented Morning Huddles. The Huddle is an excellent communication initiative. One staff from each unit/area attend and take information back to teams. The Huddle features celebration of successes for staff, daily updates on staffing and patients, corporate initiatives, interdepartmental collaboration, relevant newsworthy items, staff feedback/ suggestions, updates, and review of safety occurrences (*JCC*)
- **Juravinski Cancer Centre** welcomes its fourth Varian True Beam Linear Accelerator on July 25th. True Beam is the latest generation of Varian linear accelerators. The True Beam offers improved user interfaces, greater accuracy, and a higher dose rate allowing quicker treatment times and greater efficiency. Radiation therapists **Arlene Dolman** and **Sandra Whitty** are enrolled in the Varian True Beam 101 training

Staffing News

- **Dr. Sunil Gulavita**, Radiation Oncologist, MD, FRCR, FRCP, retired on June 30th, 2016, after a long and distinguished career with Regional Cancer Care Northwest at Thunder Bay Regional Health Sciences Centre. We wish to extend our sincerest gratitude to Dr. Gulavita for 30 years of exceptional cancer care, and wish him all the best in the next chapter of his life (*NWORCC*)
- **Dr. Julia Skliarenko** joined the SMRCP team in April as the 6th Radiation Oncologist. Julia has completed her fellowship in gynecologic malignancies, and her clinical interests are in gyne, GU and lung (*SMRCC*)
- **Dr. Alejandro Berlin**, was appointed as new Staff Radiation Oncologist – Clinical Investigator at the Princess Margaret Cancer Centre in September 2015. He is also appointed as Assistant Professor in the Department of Radiation Oncology, Faculty of Medicine, at the University of Toronto (*PMH*)
- **Dr. David Jaffray**, Head of Physics at the Radiation Medicine Program at Princess Margaret Cancer Centre was appointed as the new UHN Executive Vice President of Technology of Innovation in October 2015 (*PMH*)
- **Dr. John Waldron**, was appointed the role of Director of Quality and Safety, RMP effective January 2016 (*PMH*)
- **Dr. Andrea McNiven**, was appointed the role of UT-DRO Director of Physics Education effective February 2016 (*PMH*)
- **Dr. Meredith Giuliani**, was appointed the role of Medical Director of Cancer Education at the Princess Margaret Cancer Centre/University Health Network in 2016 (*PMH*)
- **Dr. Anthony Brade** has been appointed as the head of Radiation Oncology at the Carlo Fidani Peel Regional Cancer Centre (*CFPRCC*)
- **Dr. Robert Dinniwell** will be joining the London Regional Cancer Program and the Department of Oncology as the Chair/Chief Division of Radiation, Department of Oncology and South West Regional Radiation Clinical Lead effective November 19, 2016 (*LRCP*)

CCO RTP Updates

- Congratulations to **Elizabeth Lockhart**, former RTP program Team Lead, who recently took the position of Group Manager, Contract Management, Regional Program Development. Many thanks to Elizabeth for all her hard work and contributions to the RTP. We wish her the best of luck in her new role
- Welcome back to **Elizabeth Murray**, to the temporary role of Team Lead, Radiation Treatment Program effective May 4, 2016. Elizabeth spent four years in the RTP before taking a new role with Cancer Screening in 2014

We want to hear from you! Please send us 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, please 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.

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