TASK SHIFTING IN RADIATION THERAPY

A proven new approach to enhancing access to palliative care in cancer

Submitted by: The Canadian Association of Medical Radiation Technologists (CAMRT)

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For more than 15 years, cancer centres in Ontario have been gaining experience and expertise with new models of cancer care that take advantage of task shifting. Between 2004 and 2016, Cancer Care Ontario (CCO) conducted a project focused on developing, implementing and evaluating an updated model of care that included a new health care professional role – the Clinical Specialist Radiation Therapist (CSRT).[1,2] These roles were initially piloted to answer long wait times, and in order to improve the quality of cancer care available to patients.[3-6] Implemented in various areas of cancer care, the most widely propagated role has been the Palliative CSRT role – with more than 30% of CSRTs currently practicing in the palliative cancer domain.[1,7]

These roles have been the topic of much interest and support within the broader Canadian Radiation Oncology community.[8-10] A collaboration launched more than a decade ago led to the creation of a national certification process for those practicing at this advanced level, and this continues to be supported nationally by the Canadian Association of Medical Radiation Technologist (CAMRT) with support from the Canadian Association of Radiation Oncology (CARO) and the Canadian Organization of Medical Physicists (COMP).[11]

Despite its success in Ontario in meeting wait times and quality goals, and broad support of the radiation oncology community,[12] the role has yet to be implemented in other provincial jurisdictions. The CAMRT believes that this model is an innovation in palliative care well-suited for implementation right now in the rest of Canada; that it could help not only to increase access to palliative radiation therapy and relieve mounting pressure on the overall cancer care system due to the aging population; and, that it is deserving of study at the federal level to help facilitate its adoption across the country.

Access to palliative radiation therapy in Canada

Palliative radiation therapy for cancer patients forms a large component of all palliative care in Canada. About 50% of all cancer patients receive radiation therapy at some point in their disease trajectory.[1,13] It is estimated in Ontario, about 40% of the patients receiving this radiation are receiving it for palliative purposes.[1,14]

Given the acuteness of the palliative patients' symptoms, timely access to high quality care is paramount.[15-17] It is well known that "early integration of palliative care into a person's cancer journey leads not only to improved quality of life – better symptom control, reduced anxiety and pain, and more support for emotional, social and spiritual needs – but also to greater patient satisfaction with care. In some cases, palliative care prolongs survival".[18]

In the context of the aging population and an increasing incidence and prevalence of cancer and we find a cancer care system that struggles to provide the highest quality of care in a timely fashion to all its patients.[18] As noted in Canadian Partnership Against Cancer's report, "... (*radiation therapy is an*) effective palliative therapy for patients with advanced disease that is causing pain and other discomfort..." (p. 13, 2017)[19] yet, data indicate that access to palliative radiation therapy is inadequate in many areas of the country for many reasons including lack of

knowledge in the referring community, long travel distance to a radiation facility for care/treatment, impaired access to timely care, among others.[20]

Task shifting as innovation for palliative care

The idea of task shifting has been a well-documented strategy in the face of many global health care crises, most predominantly the HIV/AIDS crisis in Africa.[21] The pCSRT is another successful example of this strategy in practice.

Adding a pCSRT to the existing palliative radiation therapy team is one successful task shifting strategy, proven to be very effective. Each pCSRT is a registered radiation therapist in the province of Ontario bringing advanced clinical, technical and professional competencies to the radiation medicine enterprise.[1] In the model, activities are shared/redistributed between a radiation oncologist and the pCSRT. The tasks shifted are chosen to help fill gaps and alleviate bottlenecks in the delivery of palliative care. There are numerous tasks that are shifted from one profession in this model,[1,22-26] and examples discussed below demonstrate the benefits.

In general, well-planned task shifting helps to improve the patient experience in palliative radiation therapy, as the pCSRT helps to coordinate care throughout.[1,26] In addition, as pCSRTs assume responsibility for palliative patients, the time saved by radiation oncologists can be used on other patients in the cancer care system.[1,2] This allows for better use of scope for the two professions and delivers patients the personalized care they need and deserve.[27]

Additionally, task shifting creates more possibilities for practice innovation, otherwise difficult to implement.[1,23] Investing funds in pCSRT led remote assessment can transfer non-medical expenses associated with cancer care (travel, accommodation) into services that more directly enhance the quality of care received by the patient.[28,29]

Palliative CSRTs (pCSRTs) impact palliative care for cancer in very important ways:[1,30]

1) Increasing the capacity of the cancer care
2) Improving access to patients in need of palliative treatment
3) Enhancing the quality of care palliative care delivered to patients

Increasing system capacity and improving access for patients

As they take on tasks from radiation oncologists, pCSRTs are engaging patients from point of entry and throughout their patient care pathway. When pCSRTs see new patients, they provide a cost-effective way to add appointment times for patients. Because their schedule is designed with flexibility for the purposes of dealing with the myriad of patient types, pCSRTs are more available to visit inpatient wards to review urgent patient cases for indications for radiation treatment and expediting a referral.[3-6]

pCSRTs often work in new ways, streamlined to optimize access for individual patients and the larger cancer patient population. At one cancer centre, integration of the pCSRT into the Radiation Oncology Team provided a capacity increase of 33% for its Bone Metastases Clinics, vastly improving access to care.[1,2] Below are some examples of the ways pCSRTs increase system capacity and improve access to palliative radiation therapy.

Rapid access palliative care clinics

The regular referral process for radiation therapy can be slow and often does not address the needs of those palliative patients who require more rapid access to treatment. When pCSRTs are involved in the development and operation of rapid access clinics, they take key roles in reviews and triage referrals to ensure all relevant information is ready and available for clinical decision-making. Studies have also shown that patients treated through a rapid-response oncology program have a significantly decreased hospital stay.[1,31-33] In terms of tasks shifted, pCSRTs in these clinics are completing consultation, patient assessment, and consent. They may also complete target delineation and treatment field definition.[1,34,35] With pCSRTs, these rapid clinics can improve the efficiency of patient visits and improve resource utilization. One striking finding from a pCSRT led clinic was that time from decision-to-treat to first radiation treatment for patients was reduced from 5.6 days to 2 days (a 64% reduction).[1,2]

Telemedicine

pCSRTs have also been able to take advantage of advances in telemedicine and virtual conferencing. pCSRTs can be pivotal to the development and implementation of the use of telemedicine strategies. The pCSRT can identify and review referral patterns, perform literature searches to identify best practices, create clinical protocols, develop process maps, perform technical needs assessments and evaluate clinical site readiness, perform assessments and follow-up evaluation under the direction and coordination of identified stakeholders.[1,36]

One study of CSRT from a large academic cancer center in Ontario examined how the use of videoconferencing technology could save time and money. Over a period of 30 months, the CSRT coordinated 114 virtual consultations. On review, 77% of patients resided six hundred kilometers round trip distance from the consulting cancer centre. Virtual consultation provided an estimated savings of seven hours travelling time and cost savings of one hundred dollars per patient in comparison to an in-person SRT consultation.[1,36]

Enhancing quality of care

The activities of the CSRTs also enhance the quality of the care that patients receive. pCSRTs have more time to spend with patients, during which they can explain treatment options, address side effects and/or questions, and follow up with patients after completion of radiation treatment. They can provide expert continuity of care for patients throughout their radiation therapy. Their expertise in radiation therapy also ensures a greater continuity of radiation therapy across a department. They are a more cost-effective option to provide community outreach -- increasing awareness of the use of palliative radiation treatment.[1,23]

Because of the time savings pCSRTs provide, and these direct quality enhancements, patients tend to experience improved emotional, psychological and physical well-being. In fact, some studies have demonstrated how patients who receiving care from a pCSRT noted higher satisfaction with their care than or equivalent to patients.[1,37] Below are some examples of ways pCSRTs increase system capacity and improve access to palliative radiation therapy.

Urgent and emergent palliative cases

In the usual flow, cases that must be simulated and treated on the same day can cause considerable strain on the radiation therapy department. Typically added on short notice, these cases increase workload for departments that are already working at or near capacity. In the pCSRT model, the pCSRT can assist in navigating and expediting these patients through the process. They can do this in different ways, but typically this would include helping to complete a consultation and obtain consent, contouring treatment targets and/or defining treatment fields. Experience has shown that other healthcare providers benefit from this model with less interruptions, more efficient handoffs and more efficiency throughout. Patient experience is enhanced with this approach too and wait times for the program are decreased.[1,2,37]

Post-care follow up: care enhancement

Because pCSRTs are specialized in the palliative area, they can explore innovative services to offer palliative patients without worrying about the impact on non-palliative waitlists. At many cancer centres, pCSRTs have implemented post-therapy follow-up calls, providing follow-ups for many patients that may not otherwise be standard of care in most facilities. These follow ups deal with important aspects of care for patients returned home, including providing additional information on the management of radiotherapy side effects, setting up additional support at home, identifying new presenting symptoms and providing emotional and bereavement support for caregivers.[1,2,37]

In addition to the reassurance this follow up provides patients, it can also help to identify patients in need of further therapy. One study documented that a quarter of patients were brought back to manage new symptoms as a result of the telephone follow-up.[1,38]

Conclusion

Many recent studies and investigations of innovations for palliative care focus on home care and other solutions to keep patients out of hospitals and care facilities in their final weeks. Because radiation therapy is delivered in cancer centres, many of these studies have overlooked the modality. However, because of the importance of radiation therapy to the management of cancer, and because cancer incidence is on the rise, **the CAMRT recommends:**

1. **That any study undertaken by the House of Commons Standing Committee on Health Committee consider palliative radiation therapy in its reports; and**
2. **More specifically, the inclusion of a study of the innovative palliative CSRT model presented here in its studies and eventual reports.**

About the CAMRT

Established in 1942, the Canadian Association of Medical Radiation Technologists (CAMRT) is the national professional association and certifying body for radiological, nuclear medicine and magnetic resonance imaging technologists and radiation therapists. Recognized at home and internationally as a leading advocate for the profession of medical radiation technology, the CAMRT is an authoritative voice on the critical issues that affect its members and their practice. The CAMRT has successfully partnered with a number of government initiatives and agencies in the past to work towards a better healthcare system for Canadians.

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