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Describing a Process for Creating a Patient Visible Quality Educational Display to Increase Patient Engagement in Radiation Oncology Throughout the Canadian Maritimes Provinces

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Abstract

Here, we report the process for creating a patient visible quality educational display to highlight the collaborative quality working practices of Radiation Oncology clinicians and staff in the main Radiotherapy Centers throughout three Canadian provinces. These processes are often not visible to patients yet they speak directly to the standards of care delivered at these centers. The Canadian Partnership for Quality Radiotherapy (CPQR) Quality Assurance Guidelines for Canadian Radiation Treatment Programs guided this process. The display slides created were approved by the local Radiation Oncology departmental leadership for each participating medical center as well as patient focus groups and revised with feedback from both perspectives. Of 27 patients/families who evaluated the resulting educational patient display, 70% expressed high engagement in the information presented, and 81% felt the display will be of interest to patients receiving radiotherapy treatment. Patients/families surveyed reported that the displayed content made them feel more informed and more comfortable with their treatments. Survey data from this project indicates that increasing transparency and deepening patient education about the quality working practices behind radiotherapy treatments has the potential to empower patients receiving radiotherapy and increase their confidence in the care they are receiving.

Keywords Patients education · Patient empowerment · Patient engagement · Radiation Oncology · Radiotherapy education · Cancer

Introduction

Research on patient education in Radiation Oncology suggests its importance for patient participation in treatment decision making, side-effect management, treatment preparation, safe delivery of radiation and combined modality treatments, and follow-up care. In a study examining the effect of exposure to audio-visual sessions regarding procedural and sensory information about radiotherapy, it was found that patients who were exposed to the high-information condition showed statistically significantly greater treatment-related knowledge and less emotional distress than the low-information condition, irrespective of coping style [1]. Indeed, according the World Health Organization, patient education is therapeutic for patients and leads to the maintenance or improvement of post treatment quality of life, as it mentally prepares patients for the set of skills and coping mechanisms needed to self-manage or adapt to the treatment effects and prevent avoidable complications [2]. The main

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purpose of patient education is therefore to produce a therapeutic effect additional to that of all other clinical interventions [3].

A broad spectrum of education methods can be employed for the purpose of patient education and they may vary from one-on-one sessions between patients/families and healthcare provider, group education sessions for patients and their families, written information in the forms of brochures or other printed materials available in the waiting areas or clinician's office, and multimedia presentations (e.g., audio-visual presentations on TV monitors displayed in waiting areas or the library of the clinic). Challenges associated with the delivery of patient education in healthcare include providing adequate information at the right time and in the right format while considering diverse patient needs and time restrictions. Some of these challenges can be addressed by engaging the clinicians and making sure the right information is communicated at the appropriate time and format for the clinic and its patients. Others can be addressed by following guidelines that advise on the most effective level of literacy that educational materials should have to be understood by most patients.

Medical patient education has seen a move toward audio-visual materials and emerging multimedia tools to assist in describing processes that traditional educational techniques cannot provide [4]. While internet access has made it possible for patients to supplement their health information with a wealth of internet available sources, patient still consider the information they receive from their care team as most valuable and necessary given its focus, clarity and specificity. Research evidence suggests that when education programs are accessible to patients and meet the patients' literacy level that they are helpful and found to be useful. A survey study by Bibaultab et al. (2016) found that 95% of the patients attending the clinic reported having received enough information about their treatment [5]. About half of the patients however, also reported that more breadth on the information provided would have been useful. Knowledge about the treatment ahead of time lead to reporting discrepancies to their radiation therapist during the treatment session by 61% of the patients surveyed. In another study (Australian 61 patients) that looked at meeting radiotherapy patient educational needs through video information sessions, it was found that half of patients reported a reduction in fear and anxiety because of the education sessions [6]. Among the patients who reported being anxious prior to viewing the video, 75% of them reported having benefited from the education session.

According to the CPQR (2016), it is highly recommended that every attempt is made to enhance the trust between the medical establishment and patients by educating patients and their families on the procedures involved in their radiation treatment and healthy behaviors needed for the management of therapeutic goals both short and long term. This engagement will help empower patients to become engaged in their care and decisions made around their care thus becoming agents in health change rather than mere objects of change [7]. The hope is that by increasing transparency and deepening education about treatments, providers, quality assurance, and available services, that patients and their families would feel more empowered, confident, and active participants in their care.

During a workshop at the 2015 Canadian Winter School for Quality and Safety in Radiation Oncology, in Kelowna British Columbia, groups of radiotherapy professionals (Radiation Therapists, Medical Physicists, Radiation Oncologists, and Administrators) were asked to theorize on the creation of a patient visible quality educational display for patients, and which elements they would choose to display for patients to help them become empowered and active participants in their care. One such group was comprised of radiotherapy professionals from various centers in the Canadian Maritime Provinces. In keeping with emerging philosophies on the meaningful inclusions of the patient perspective in radiation oncology, our group decided that it would be most appropriate to ask patients directly about the accessibility and information value of the educational information and involve them in the creation of a patient visible quality educational display [7, 8].

Here, we report on the process involved in creating a quality educational display unit visible to patients and their families where patients are engaged in the process. The objective was to create an education tool to highlight the collaborative working practices of clinicians and staff in the main Radiotherapy Centers throughout the three Maritimes Provinces in Canada, that are often not visible to patients and their families, but that speak directly to the standards of care we deliver. The use of patient engagement and feedback to build the educational quality display for our patients and their families was the first radiotherapy quality improvement project involving the patient perspective, throughout the Maritimes Provinces.

Methods

Our team was comprised of a multi-center–interprofessional group of individuals from across three Maritime Provinces. Radiotherapy centers participating in the project included Halifax (Nova Scotia), Sydney (Nova Scotia-NS), Charlottetown (Prince Edwards Islands—PEI), and St. John (New Brunswick—NB). The professions included two Radiation Oncologists from Halifax (NS), five Radiation Therapists (one from PEI, one from NB, two from Halifax/NS, and one from Sydney/NS), three Medical Dosimetrists (one from Halifax/NS and two from Sydney/NS), and a Medical Physicist from Halifax/NS. Each of these professions were chosen as they were necessary for daily planning and treatment delivery of radiotherapy at these centers, and it was considered that this group of professionals could develop the generic slides pertaining to their area of skill and expertise.

Thirty-seven family members participated in the initial interest survey and were engaged in the decision process from start to finish. Thirty-two were patients, and 5 were family/caregivers. Of the 32 patients, 30 had radiation beam therapy in Nova Scotia (NS) and two had radiation beam therapy in Prince Edwards Island (PEI). Twenty-seven patients and family/caregivers participated in the follow-up survey. Twenty were patients treated with radiation beam therapy in NS, and 7 were family members/caregivers of the patients.

Infrastructure

Infrastructure for the digital display varied across the centers. Sydney already had an active digital display format and used it for the initial slides, and was the first to be up and running. Charlottetown leadership agreed to post printed slides on a cancer center bulletin board. Halifax applied to the NSHA Comfort and Care Grant to fund a monitor, but was unsuccessful. The Director of the Cancer Care program was able access a monitor after learning that one had been previously donated to the hospital. This showed that the early buy-in from upper level leadership was integral to the success of the project. St John had leadership approval for the project, and is moving forward with the French translation requirement to adopt the display.

Results

Phase 1: Medical Team Engagement

Team members evolved from a common desire to see this project come to light, and then from a wider Dalhousie University-Department of Radiation Oncology expression of interest. Work on this project was made more successful by utilizing several different communication methods. A series of web-ex meetings were used for discussion and task assignment. Group emails were used between meetings, and smaller working groups were chosen for the creation of display slides. Given that this was a multi-center project, distance and process differences among the centers were the only potential barriers we anticipated in the creation of the initial slides. However, this potential challenge was successfully overcome by our history of working within a community of practice, as well as designating a leader for this phase in each of the four centers.

The team identified that each of the four centers would have their own challenges associated with meeting the goals of the project. Identified resources included staff time for meetings and task completion, ethics or quality improvement approval, survey design, dissemination of surveys, digital display infrastructure, and French translation. Project tasks were assigned based on availability of resources in each of the centers.

In addition to requiring the support of multidisciplinary leadership, the actual slides required input from key groups and programs in the patient care of these centers. Statistics such as numbers of treatments, percentage of peer review, wait times, machine maintenance, and distress screening were generated and provided to the team leaders by the personnel responsible for monitoring each of these indicators. Other slides that highlighted support programs were pulled from appropriate departments such as pastoral/spiritual care and social work. Finally, slides that highlight new developments within the department as well as members of the radiotherapy team required the support of local staff.

The team understood that buy-in would be required from all levels: front line staff, departmental and senior leadership, and performance excellence. Each center was individually responsible for communicating the project's intent, design, resource requirements, and progress to their respective multidisciplinary leadership.

In each center, the project fell under the domain of their Radiation Therapy Quality Committees. Regionally, the project was overseen by the Dalhousie Department of Radiation Oncology Clinical Care Committee, to which each of the local Quality Committees report, in addition to their local organizational structure. The Clinical Care Committee was established with multi-disciplinary, multi-center, and patient representation.

Phase 2: Patient Engagement

Recognizing the need for the project endpoint to be driven by the patient and family perspective, the team enlisted the support of Cancer Care Nova Scotia. Support was given by the Patient Engagement and Education Coordinators. The Engagement Coordinator helped to refine an initial patient interest survey that was electronically distributed through the Cancer Patient Family Network, social media, and in paper form in the radiotherapy waiting room. The Patient Education Manager helped to refine the slides based on their expertise in information layout for patients.

Phase 3: Project Presentation to Clinicians and Engaged patients—Initial Interest Survey

The project was twice presented to the larger radiotherapy community at the Atlantic Radiotherapy forum. These presentations included patient representatives, as well as members of the Canadian Association of Radiation Oncology, The Canadian Association of Medical Radiological Technologists, the Canadian Organization of Medical Physics, and the Canadian Partnership for Quality Radiotherapy, and allowed for early and final project discussions.

Aligning with the International Association for Public Participation (2015) guidelines, the team consulted, involved, and collaborated with patients and families in the design

process of the Educational Quality Display after the health professionals put forward the items deemed appropriate to be included in the display. Standards for assessing educational resources were used as criteria for selection. These standards included the following criteria: responsiveness to need, acceptability to key stakeholders, scientific quality of information, content presentation, and patient satisfaction. Indicators of these factors were evidence of needs assessment preceding resource development, clarity defined scope and aims, consultation with health professionals from medical, nursing, and allied health disciplines, consultations with patients and families/caregivers, endorsement by key professional bodies, adherence to evidence-based clinical practice guidelines, mechanisms for updating information overtime, assessment during production of readability, style of language, use of text, diagrams and visual images, and overall production quality assessment of consumer satisfaction of the resource before final release. The team included feedback from Public Advisors on the Radiation Therapy Quality Committee and surveys disseminated through the Cancer Patient Family network were administered to help advise on the development of the information included on the quality display. Patient and families were then updated on how their information was used and how their input affected the decision-making process, in keeping with the core values of public participation (International Association for Public Participation 2015).

The team created an initial interest survey that was electronically distributed to the Nova Scotia Patient and Family network, through social media, and in the Halifax and Sydney waiting rooms. Items chosen for the initial interest survey were guided by published Canadian Partnership for Quality Radiotherapy (2016) Key Quality Indicators. Through the survey feedback, we could drive the focus of the display to meet the needs of the patients and their families.

The initial interest survey consisted of 10 questions which were answered by 37 participants (30 patients and 7 family/caregivers members). The participants were asked to rate how interested they would be in seeing the topics that were preselected by the medical staff, displayed in the radiation therapy waiting rooms. Table 1 displays the items surveyed and the percentage of responses indicating whether the person was "not interested or unsure," or "somewhat or very interested." Overall percentages were higher for "somewhat or very interested" compared to "not interested or unsure." Items 1, 6, and 9 had the highest interest percentages (between 81 to 95%), whereas item 2 had the lowest interest percentage (60%). It was concluded that focus in detail of the items selected should be given according to the percentage ranking obtained from the initial interest survey.

This information allowed the group to shift the focus from being purely a statistical display of quality indicators, and move toward an emphasis on educating patients on the steps of radiotherapy planning, and professionals involved in each of the steps, as well as providing information on the support services and programs offered and developed within the center or the organization.

Phase 4: First Version of the Display Is Created

Items to be included in the digital display considered the initial patient feedback survey. Slides were designed by the most appropriate professional, and then adjusted and altered by the larger team. Slides were fine-tuned by the patient engagement and education specialists at Cancer Care Nova Scotia for literacy level (third grade to seventh grade levels), careful wording choice, detail (according to interest expressed by participants), and presentation. A pre "go-live" version of the display was sent to previously interested survey participants to provide feedback on, and to verify that the display was meeting the intended goals and expectations. Final approvals and revisions were completed by each local leadership groups based on organization requirements, and any differences among departments.

Early revisions based on patient feedback included altering the font sizes, cutting down on complexity, slowing the slide speed, adding more photos of staff and equipment, adding contact information, and finally ensuring that all slides ultimately circle back to the patients and their families. One initial concern was that providing the additional information from these revisions may cause patients and their families more concern or worry about their upcoming radiotherapy experience. With this understanding, we added two questions in the go-live survey assessing any negative impact on patient experience that the display and the information included might have elicited.

Phase 5: Digital Display Goes "Live" and Post Survey Assesses Patients/Families Feedback

Once the digital display went live, surveys were given to patients and their families for additional feedback. A total of 20 patients and 8 family/caregivers were surveyed. All patients engaged in the survey were from NS.

Post surveys were administered to 27 participants (20 patients and 7 family/caregivers of the patients). Two questions displayed in Table 2 assessed self-perceived and others' interest in the final educational slideshow. Interest in the information presented in the slide show exceeded 90%. Patients were also asked to provide feedback with regard to whether the information presented made them comfortable or uncomfortable. Responses are summarized in Table 3. All participants surveyed expressed being comfortable having exposure to the slide show information, and 56% of participants surveyed said this information made them also more comfortable with their treatments.

To further explore these responses, participants were asked two additional open-ended questions: "Is there anything you

Table 1 Percentage of interest in seeing the following information presented in radiation therapy clinics as expressed by patients and family/caregivers

Item surveyed	Not interested or unsure (%)	Somewhat or very interested (%)
1. Daily wait times for radiation treatment	18.92	81.08
2. What percentage of patients that are currently starting their radiation treatment course on time	40.54	59.46
3. What percentage of patient radiation treatment plans that get a review by a second physician	27.03	72.97
4. How much patients benefit from distress screening and which services are available and used	27.03	72.97
5. Information about treatment machine maintenance, such as, how often the machines are serviced, and which safety checks are performed	27.03	72.97
6. New policies, procedures, programs, or clinical trials being developed in the cancer center	5.41	94.59
7. Staff education, licensing, and achievements	29.73	70.27
8. What percentage of treatment plans have a Radiation Therapist weekly review	32.43	67.57
9. An outline of the steps involved between the time of your markings/planning session and when you finish your radiation treatments	10.81	89.19
10. The percentage of time where radiation treatments cannot be delivered due to unforeseen circumstances (i.e., machine breakdown)	27.03	72.97

would like to see added or removed from this slideshow?" and "Do you have any other comments on our slideshow?" Responses are summarized in Table 4.

Feedback from patients and families included directions to further increase font size, adding more photos, and including more positive and uplifting information about the treatment process keeping in mind end goals. This feedback was adopted in the final slideshow product that was adopted by the clinics (see Appendix).

Sustainability

This quality improvement project was easily sustainable and required few ongoing resources. Quarterly, data that was already being collected by the department, such as wait times, peer review, total treatment numbers, and machine downtime, was requested from the appropriate individuals, and slides were updated to reflect the latest statistics. At the same time, photos and new support services continue to be updated as required. By design, the project lends itself to proving replicability, in that three of the four centers, each with their own organizational structure and operational differences, have managed to adopt the display. The only center to be delayed in adopting the display regularly is St John as they are waiting on the French translation (still ongoing).

Discussion and Conclusion

Discussion

Our project allowed for four Radiation Oncology departments across three Canadian Provinces (Maritimes) to explore existing patient engagement support services in facilitating the creation of an educational display to improve patients' comprehension of radiation therapy and its role in their treatment. The experience allowed for the departments to learn from our collaboration and meaningfully elicit the feedback of our patients and family network to create an educational quality display that would meet their needs, rather than strictly departmental needs. The result has been to aide in increasing the comfort level of the departments in further integrating patient engagement into all aspects of our daily patient care.

The innovation in this project comes from the use of previously untapped patient waiting time to provide deeper education. Patients are not asked to attend additional education

Table 2 Percentage of interest in the final slideshow product and the information it contained as it was presented in radiation therapy clinics according to patients and family/caregivers

Item surveyed	Not interested or unsure (%)	Somewhat or very interested (%)
1. Are you interested in our slide show?	7.41	92.59
2. Do you think other patients and family members would be interested in our slideshow?	3.70	96.30

Table 3 Percentage of comfort or discomfort in seeing the following information presented in radiation therapy clinics as expressed by patients and family/caregivers

Item surveyed	No or unsure (%)	Yes (%)
1. Does any of the content in the slideshow make you uncomfortable?	100.00	0.00
2. Does having the information provided in the slideshow make you feel more comfortable with your treatments?	44.44	55.56

sessions, or given additional written information. Education is occurring in a passive manner, and at the discretion of the patient to choose to view the information provided.

Conclusion

The survey data we present here along with the process of creating the survey with feedback from both clinicians and patients indicates that increasing transparency and deepening patient education about the quality working practices behind radiotherapy treatments is beneficial to patients receiving radiotherapy and increase their confidence in the radiotherapy care they are receiving. The educational display we created showcased the successful collaboration of a regional community of practice, overcoming institutional and leadership differences, and promoting the meaningful inclusion of the patient perspective. This type of patient education display was the first for our collective departments in the Maritimes. It allowed us to optimize and welcome patient engagement, setting the ground work for further meaningful integration of the patient voice in future projects, processes, and practices. Transparency and patient engagement are an integral component of quality care and satisfaction. Through engaging patients and families in the process of this project, we realized how easy and meaningful the inclusion of the patient's perspective into our daily work is and how necessary.

This project however is not without limitations. One limitation includes the limited patient and family feedback from two of the three provinces, which also translated into small survey participant numbers (pre and post display creation). Another limitation is that the initial survey design did not include patient participation in its creation which could have

Table 4 Open-ended questions presented to patients and caregivers/family members after the slideshow was first presented in radiation therapy clinics according to patients and family/caregivers

Is there anything you would like to see added or removed from this slideshow?	Do you have any other comments on our slideshow?
"Not for me personally, but maybe some success stories would be encouraging."	"Not at this time."
"The board in Halifax is difficult to read. Some patients are "back" to it and others at a considerable distance."	"Excellent idea-just needs a new 'spot'."
"No."	"Informative, passes the waiting time:)"
"Maybe something upbeat and entertaining."	"I found it informative, as I didn't have a lot of knowledge about Radiation Therapy."
"Not at this time."	"The TV running distracts you from the slideshow."
"No."	"Good job."
"Larger print."	"No."
"No."	"Picture are a nice relax."
"No, quite good."	"No."
"I think the pictures enhance the slideshow. Especially pictures that can provide a "tour" of the Radiation Department and staff."	"A very good idea to display information."
	"It's difficult to see the words unless you are quite close."
	"Keep it going!!"
	"Keep it going ... great!"
	"No."
	"Good job."
	"As a committee member I was confused by the term 'Quality Board' that was being used. I assumed 'Board' was a committee (e.g., Board of Directors). I think it should be referred to as a Quality Presentation for Patients/Families. I think this is an important initiative for patients and families. The more information that can be provided in different formats is excellent. Thanks!"

resulted in biased items of the final product by health care professionals' selection criteria. Future studies should consider involving patients up front in the topics covered by the presentation to avoid this bias. Another limitation is that items used in the evaluation of the appropriateness of the display items were not validated questionnaires. This limitation may raise important issues about methods of evaluating patient education materials. Future studies should attempt to use validated questionnaires to evaluate patient education materials. Such materials may include validated measures of assessing patient psychological distress and coping self-efficacy following presentation of the display materials and comparing results to control participants (those who were not presented the display materials). Another possible limitation is that some of the final slides of the radiation therapy educational display deck we evaluated included information that is of general knowledge about cancer (e.g., smoking links to breast cancer), rather than radiation therapy in particular. Future studies may consider avoiding this issue to obtain clearer evaluations of the education program by attempting to create separate education displays for each and assess them individually (e.g., general cancer knowledge versus radiation therapy knowledge). This may lead to more specific and finely tuned evaluations of targeted radiation therapy education resources. Lastly, the acceptance of the importance of patient education by the health care teams at these centers and the activities at these centers in promoting patient education materials may have led to patients being better informed generally about cancer treatments. In this context, it may be difficult to detect improvements in patients' knowledge and comfort because of a single focus educational intervention using standard measures. Future studies should be mindful of these issues and attempt to design case control studies that also have adequate power to assess group differences as compounding this problem, effect sizes are often low in studies assessing the benefits of educational interventions [9].

Nonetheless, this project has many strengths. First, the project was imbedded in each of the strategic priorities of the Nova Scotia Health Authority 2013–2016 action plan which pointed out as essential components the following: transforming person-centered health care experiences, citizen and stakeholder engagement and accountability, transformational leadership, innovating health and learning, and sustainability. Specifically, the project was driven by the interest, needs, and feedback of our radiotherapy health professionals, to create a display focused on educating patients and families and demystifying the radiotherapy process and experience. Patients, families, patient care leadership, and experts were integral in the creation of the final educational display. Several of the slides showcased measureable statistics, are designed to demonstrate a commitment to transparency with our patients and their families, and hold Radiation Oncology departments accountable for showing improvements toward meeting benchmarks.

Patents surveys confirmed that the data and information on the final educational display we adopted is easy to read and understand for patients and it is also easy to update quarterly by clinicians and staff keeping statistics current with changes in the delivery of care and wait times. Considering that the ongoing display we created is cost effective and sustainable, patient visible education quality materials that meet these criteria are worth developing and using as part of complete Radiation Oncology patient care.

Practice Implications

The process we described here makes it easier for other centers to adopt and include in their practices. This project was front line driven, born from a desire to bring awareness of all the elements of quality radiotherapy to our patients and their families. Being front line driven, and not because of senior leadership policy, or driven by a desire to meet external standards and accreditation, it showcases transformational leadership that integrates patient engagement in the creation and delivery of patient education materials. This process and materials created can benefit other radiotherapy centers throughout the country and other centers throughout the world with similar settings. Providing patients with an educational digital display that shows the background information about the treatments they are about to receive and the quality assurance practices that clinicians and staff put in place for the safety of their patients is a great opportunity to educate and empower patients and their families while they are waiting for their appointments. In our Radiotherapy Centers, throughout the Maritimes provinces, there can be a significant amount of waiting time between radiotherapy care. The display unit we created provides a passive leaning opportunity to enhance the face-to-face educational moments with staff. The display also allows opportunities for deeper patient and health care provider discussions when patients ask about quality indicators, and other components of quality radiotherapy delivery. For this reason, we believe the process and materials we have described could be beneficial to other radiotherapy centers with similar goals and cancer care clinic circumstances.

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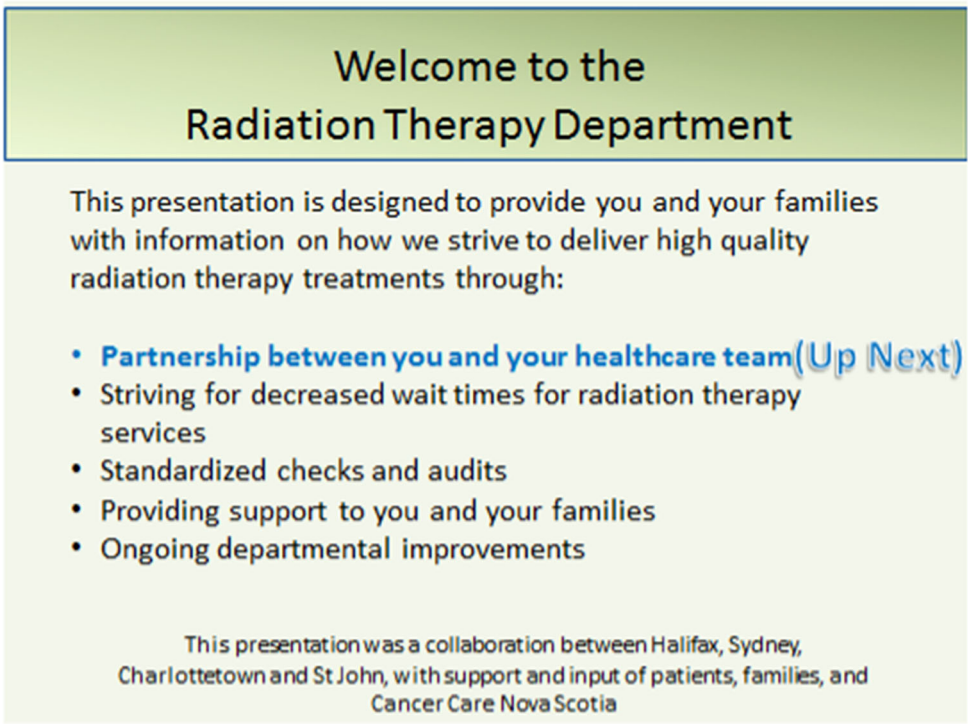
Compliance with Ethical Standards

Conflict of Interest None.

Appendix


Welcome to the
Radiation Therapy Department
This presentation is designed to provide you and your families with information on how we strive to deliver high quality radiation therapy treatments through:
• Partnership between you and your healthcare team (Up Next)
• Striving for decreased wait times for radiation therapy services
• Standardized checks and audits
• Providing support to you and your families
• Ongoing departmental improvements
This presentation was a collaboration between Halifax, Sydney, Charlottetown and St John, with support and input of patients, families, and Cancer Care Nova Scotia


Steps Involved in Making your Customized Treatment Plan
There are many steps before your treatment can begin ...
Visit with Radiation Oncologist
CT Scan/ Simulation
Defining area to be treated
Planning of treatment
Checks of plan
Treatment
...And the amount of time between steps depends on many different factors, and involves various members of your team

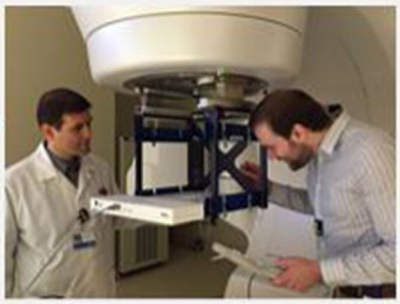

Your Radiation Therapy Team
Your radiation therapy treatment involves many skilled professionals, working together and partnering with you to provide the highest quality care. Learn more about each of these professions
Radiation Therapist
Medical Dosimetrist
Radiation Oncologist
Medical Physicist
Nurse
Allied Health
You


Your Radiation Therapy Team
Radiation Oncologists:
• Consultation
• Prescribe, outline and define the radiation treatment plan
• Symptom & side-effects management
• Arrange follow-up plan and care
VARIAN
• Medical Degree and Residency Training
• Certified by the Royal College of Physicians and Surgeons of Canada
• Licensed by The College of Physicians and Surgeons of NS
• Members of the Canadian Association of Radiation Oncology

Your Radiation Therapy Team

Medical Physicists:

- **Treatment planning**
- **Quality assurance (QA) of machines**
- **QA of radiation treatment plans**
- **Research**



- Masters Degree or PhD
- Certified by The Canadian College of Physicists in Medicine
- Professional members of The Canadian Organization of Medical Physicists

Your Radiation Therapy Team

Radiation Therapists:

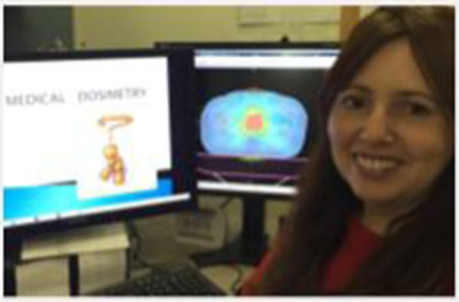
- **Education**
- **Simulation**
- **Treatment planning**
- **Radiation treatment delivery**
- **Quality assurance (QA) of machines and treatments**

- Bachelor of Science Degree, Diploma in Radiation Therapy
- Certified by the Canadian Association of Medical Radiation Technologists
- Members of the NS Association of Medical Radiation Technologists

Your Radiation Therapy Team

Medical Dosimetrists:

- **Specialize in treatment design and planning**
- **Quality assurance (QA) of radiation treatment plans**



- Radiation Therapists with Medical Dosimetry Certification
- Canadian Dosimetry Certificate
- Members of Medical Dosimetry Certification Board
- Members of American Association of Medical Dosimetrists

Your Radiation Therapy Team

Nurses:

- **Education**
- **Assessment and management of symptoms and side-effects**

- Bachelor of Science in Nursing, Diploma in Nursing
- Members of the College of Registered Nurses of Nova Scotia
- Members of the Canadian Nurses Association (CNA)
- May hold oncology specialty certification

Your Radiation Therapy Team

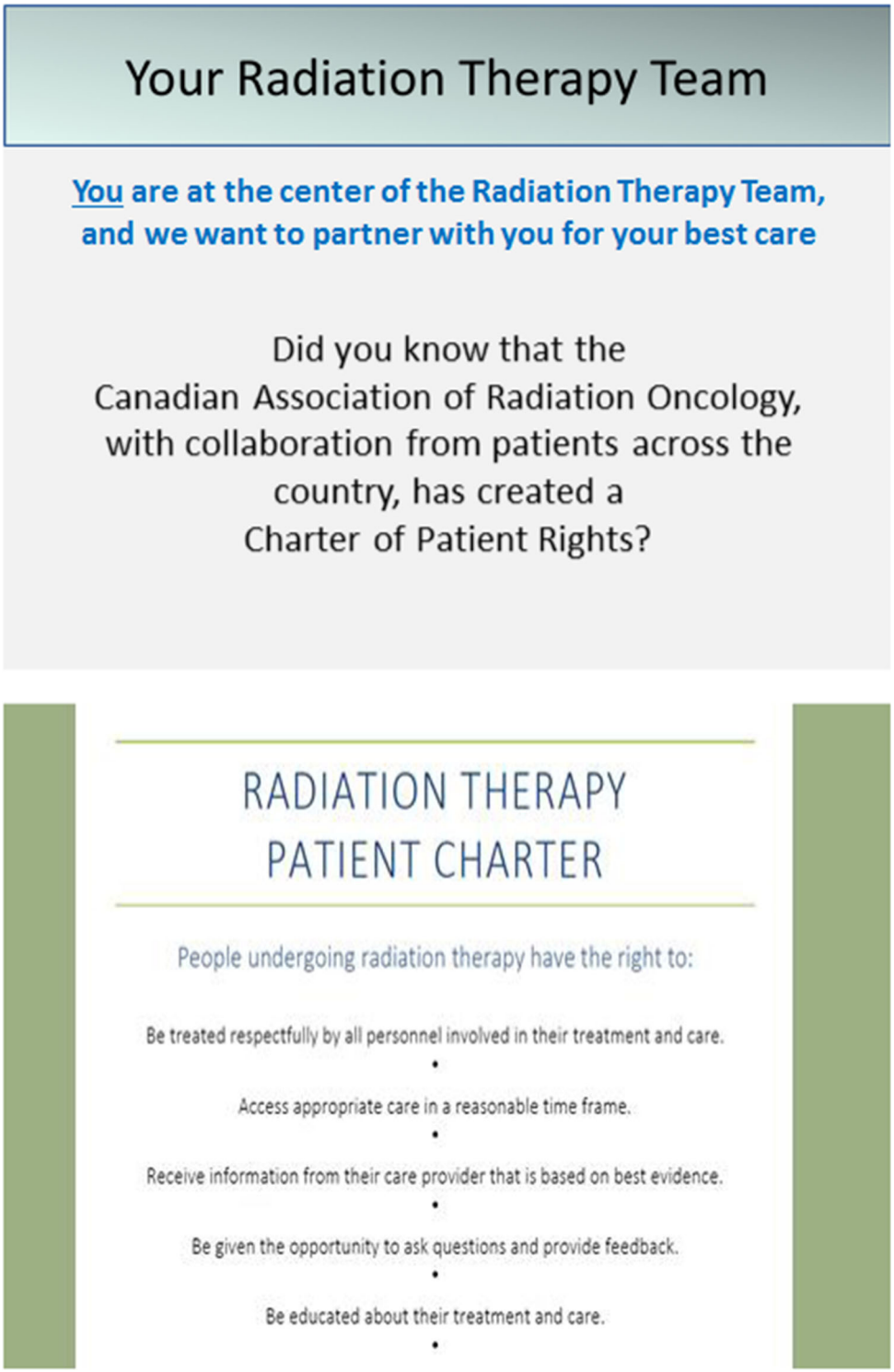
Your radiation therapy team may also include support from:

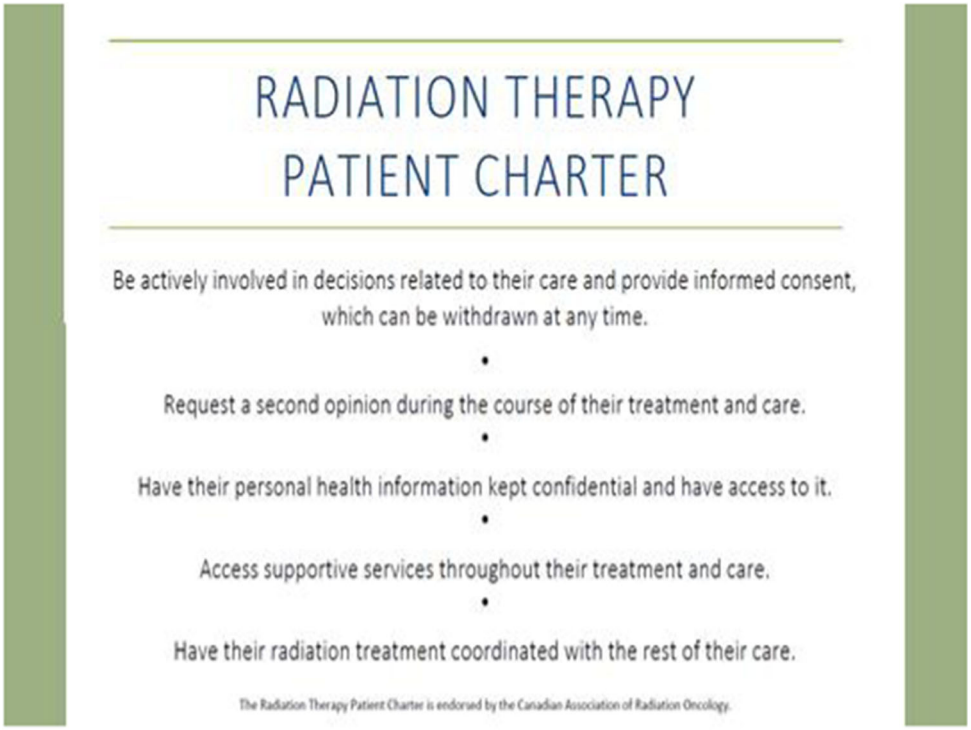
- Clerical
- Electronics Technologists
- Social Workers
- Spiritual Care
- Dieticians
- Dental care
- Other Allied Heath Professionals
- Students

Your Radiation Therapy Team

You are at the center of the Radiation Therapy Team, and we want to partner with you for your best care

- Don't be afraid to ask questions of your team
- Share as much information as you can about your illness or condition with your team
- Help us plan for your needs following treatments
- Ask us about how you can get involved to help improve Nova Scotia's Cancer System


Your Radiation Therapy Team
You are at the center of the Radiation Therapy Team, and we want to partner with you for your best care
Did you know that the Canadian Association of Radiation Oncology, with collaboration from patients across the country, has created a Charter of Patient Rights?
RADIATION THERAPY PATIENT CHARTER
People undergoing radiation therapy have the right to:
Be treated respectfully by all personnel involved in their treatment and care.
Access appropriate care in a reasonable time frame.
Receive information from their care provider that is based on best evidence.
Be given the opportunity to ask questions and provide feedback.
Be educated about their treatment and care.


RADIATION THERAPY
PATIENT CHARTER
Be actively involved in decisions related to their care and provide informed consent, which can be withdrawn at any time.
•
Request a second opinion during the course of their treatment and care.
•
Have their personal health information kept confidential and have access to it.
•
Access supportive services throughout their treatment and care.
•
Have their radiation treatment coordinated with the rest of their care.
The Radiation Therapy Patient Charter is endorsed by the Canadian Association of Radiation Oncology.


About Your Radiation Therapy Experience
Do you have:
• Questions?
• Concerns?
• Comments?
• Suggestions on improvement?
Continuous Improvement
Feel Free to Contact:
XX, Manager of Radiation Therapy Services
902-XXX-XXXX

The Percentage of Patients Starting Their Radiation Treatment Course On Time

- It is important for patients to start their radiation treatments within an appropriate time frame.
- This time frame is chosen by their Radiation Oncologist
- "On time" is defined as the patient starting radiation treatment within this chosen time frame.

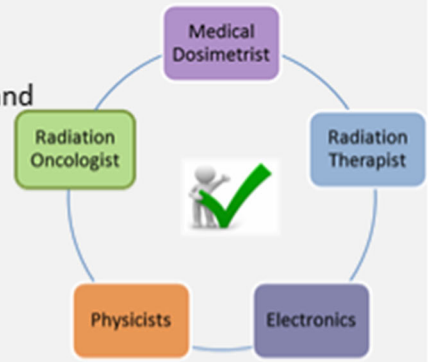

The Percentage of Patients Starting Their Radiation Treatment Course On Time
Time Period Reporting for:
July 1, 2017-Sept 30, 2017
XX% of Patients started treatment within 28 days of "on time"
XXX Courses of Radiation Therapy Were Delivered
https://waittimes.novascotia.ca
The Canadian Partnership for Quality Radiotherapy
National alliance of the professional groups involved in radiation treatment delivery, with strategic and financial support from the Canadian Partnership Against Cancer
Current programs:
• Quality assurance guidance and indicators
• Technical quality control guidance and indicators for equipment
• A national reporting system for radiation treatment incidents
• Ensuring that patients are satisfied with the quality and safety of their treatment
WWW.CPQR.CA
CPQR
Canadian Partnership for Quality Radiotherapy
PCQR
Partenariat canadien pour la qualité en radiothérapie

Check, Checks and More Checks!

What is Quality Assurance?

- A cooperative approach to ensure programs and processes work safely and provide **Quality of Care**

- Verifies **each** step of the radiation process to ensure the treatment plan is delivered safely and accurately

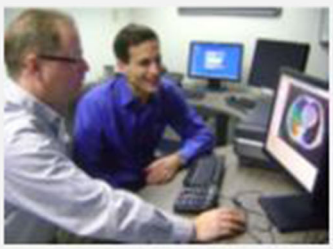


It Takes A Team

Your team works together, making sure all levels of quality assurance are met

Standardized Checks and Audits- Peer Review

- Peer review is an important part of good quality radiation treatment
- It involves a review of parts of a radiation treatment plan by a second Radiation Oncologist
- Benefits may include
  - ✓Identifying areas for improvement
  - ✓Avoiding medical error
  - ✓Team learning
  - ✓Continual Quality Assurance




Standardized Checks and Audits-
Peer Review
Between Oct. 1, 2017 and Dec. 31, 2017
=xx %
of radiation treatment plans were reviewed by a second Radiation Oncologist prior to 25% of treatment delivered
*National benchmarks are being determined, and we will continually strive to reach these goals
Standardized Checks and Audits-Weekly
Quality Assurance checks are done on the details of your treatment each week you are on treatment
• Verify treatments are recorded and the radiation dose is correct
• Any imaging procedures follow the correct protocol
• Treatment bookings are correct and any missed days (i.e. holidays or machine down-time) are accounted for
• Ensure Patient has had a Clinic Visit with Nursing, Radiation Therapists, or the Radiation Oncologist, and any changes or concerns are addressed

Standardized Checks and Audits-Weekly

Percentage of Radiation Treatment Plans with a Weekly Radiation Therapist Chart Review

= xx%

Standardized Checks and Audits-Machine

- Repair and preventative maintenance is carried out on our machines by our Electronics Technologists

  Your machine may be pre-scheduled to be down for a day

- Machine QA is performed on a regular basis using National and International guidelines by:
  - ✓ Radiation Therapists
  - ✓ Medical Physicists
  - ✓ Physics Assistants
  - ✓ Graduate Students

Distress Screening Program

Living with Cancer can be stressful.

You will be given a screening for distress questionnaire at points along your treatment course.

The following referrals to support our patients are made possible because of our screening program:

- Social work
- Dietician
- Navigator
- Palliative Care
- Family Doctor
- VON/Continuing care

Flu Shot Information

- **When should I have the flu shot?**
- If you are a **Haematology (blood cancer)** patient, or you have been treated in the past for cancer, or you are a friend, family member or caregiver of someone with cancer you should have your flu shot as soon as you can.
- If you have had a **Bone Marrow or Stem Cell Transplant** more than 4 months ago, you should have your flu shot as soon as you can.
- If you had your transplant less than 4 months ago, you should talk to your doctor about when it is best to get your flu shot.
- If you are having **Radiation Therapy**, you may have your flu shot at any time during your radiation treatment. Flu shots will not affect your radiation treatments.
- If you are just **starting Chemotherapy**, you should have the flu shot before chemotherapy begins.
- If you are **already having Chemotherapy**, you should have the flu shot 3 to 5 days before your next chemotherapy treatment.
- If you **have finished Chemotherapy**, have the flu shot 3 to 4 weeks after chemotherapy is over.

Flu Shot Information

- **Should I have the flu shot?**

- **Yes**. All cancer patients, cancer survivors, family and care givers should have the flu shot every year.
- You should not have the flu shot if you are allergic to the vaccine or any of the vaccine's components, or if you are advised by your Doctor to avoid or delay it.
- People with cancer should not have the nasal spray flu vaccine. The nasal spray vaccine is made of live flu viruses and is not approved for people with weak immune systems (immunosuppression).

Look Good, Feel Better
Belle et Bien Dans Sa Peau

If you are a woman living with cancer, this program may be for you.
Sessions are held at the VG Site, Room 024 , Main Centennial Building

Monday's 1-3 pm

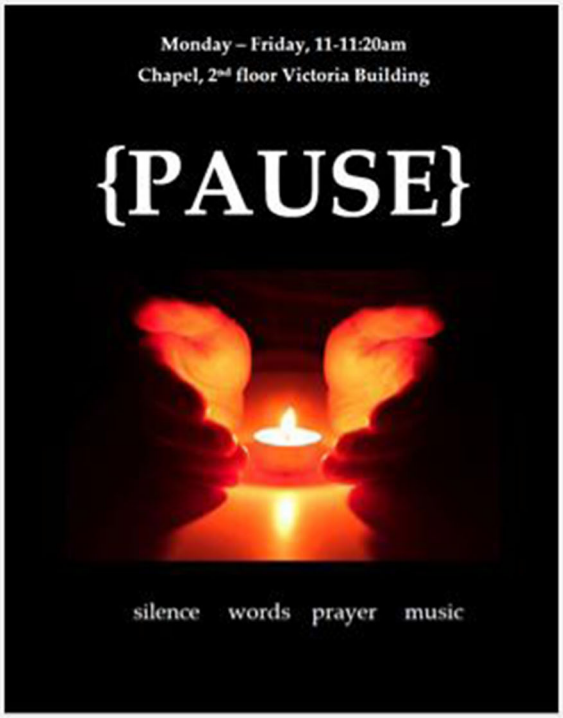
Wednesday's from 7-9 pm

Look Good Feel Better
Helping Women with Cancer

For Dates and How to Register:

Call Volunteer Services (902) 473-5420, weekdays 8am-4pm.
Leave your name and the date you would like to attend

Look Good Feel Better is sponsored by the Canadian Cosmetic, Toiletry and Fragrance Association Foundation. It is brought to you in Halifax, through the cooperation of the QEII and the Dianne Sleeknoy Guild



Group Education Sessions Offered For Patients and Their Families

- Taking Control of Your Cancer-Related Worry and Anxiety
- Managing Your Cancer-Related Fatigue
- Taking Control of Your Cancer-Related Sadness and Depression
- Coping With Your Cancer-Related Pain

For more information on these sessions or to register, please contact XXX


811
CALL TO QUIT.
811 is now the number to dial for advice and judgement-free counselling to quit smoking.
Call today and quit for good.
NOVA SCOTIA


Living Beyond Cancer: What Happens Now?
Topics include:
• What is follow-up care?
• Short and long term side effects of cancer treatment
• Physical activity
• Nutrition
• Coping and adjustment
• Spirituality
• Services available
• Who to talk to about sexual health concerns
Why should I attend this class?
• Learn more about what happens after cancer treatment.
• Ask the cancer care team questions about your follow-up care
• Meet other cancer survivors
To register:
• Online visit www.cancercare.ns.ca
• Call 902-473-6405 or toll free 1-866-524-1234
• Speak to your health care provider

VG Sunshine Room

11thfloor, Victoria Building, Room 11-017
Monday to Friday10am –3pm
Contact:
The Sunshine Room (902) XXX-XXXX
Volunteer Coordinator (902) XXX-XXXX

- The Sunshine Room is a comfortable and supportive area where patients and family members undergoing cancer treatments can be introduced to Massage Therapy, Therapeutic Touch, Reflexology, Reiki and Healing Touch.
- Wigs, haircuts, and head wraps are also available.
- All services are free of charge.

What's new in the Radiation Therapy Department?

Did you know that we are researching using cutting edge 3D printing technology in Radiation Therapy

What's new in the Radiation Therapy Department?

Radiation Therapists spend their own time to lovingly transform our children's treatment masks into beautiful works of art,

using the child's own vision!






Accreditation Canada

Accreditation took place October 15-20 2017

Nova Scotia Health Authority's Accreditation decision: Accredited (Report)

The organization has succeeded in meeting the fundamental requirements of the accreditation program.

http://www.nshealth.ca

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