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Methods: This pilot study is a prospective, questionnaire-based cohort evaluation. The questionnaire, developed by Helen A. McNair with The Royal Marsden NHS Foundation Trust (2019), adapted from Olausson et al [*Technical Innovations & Patient Support in Radiation Oncology*, 3-4, 7-12 (2017)] and Ahlander et al., [*Journal of Advanced Nursing*, 72(6), 1368-1380 (2016)], is both qualitative and quantitative. Twelve patients that received standard of care radiation treatment for primary prostate or brain cancer, on either the MR-Linac or a CBCT-Linac, completed the questionnaire on the second and last fractions of treatment. Patients unable to read and write in English were excluded due to the lack of validated translations available for the questionnaire.

Results: Preliminary results revealed that there is a difference between MR-Linac and CBCT-Linac treatment experience, with CBCT-Linac treatments scoring more positively than MR-Linac treatments ($P = 0.048$). As best as could be determined, this difference in treatment experience was not due to disease site, or demographic factors such as age, sex, disease stage, medical comorbidities, performance status, or previous radiation therapy history. Questionnaire results suggest communication between staff and patients is an area for improvement.

Conclusion: This pilot provides recommendations for potential future improvements to the radiation therapy patient experience on the MR-Linac, and informs future practice in the field of radiation therapy by supporting the clinical implementation of the MR-Linac.

The Patient Experience of the MR-Linac

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Purpose: The MR-Linac is a paradigm-changing technological advancement in the radiation therapy field, recently clinically implemented in Ontario, Canada. As with any new health technology, it is important to evaluate the implications on patient experience. There is currently limited literature on MR-Linac patient experience. However, research on magnetic resonance (MR) imaging used in the cancer staging process relative to computed tomography (CT) imaging suggests that treatment on the MR-Linac may be considered more difficult for patients than treatment on a conventional cone beam CT linear accelerator (CBCT-Linac). This pilot study investigated patient-reported experience for individuals receiving radiation therapy treatments on the MR-Linac, as compared to the conventional CBCT-Linac, to inform future practice in radiation therapy and improve person-centered care.

Methods: This pilot study is a prospective, questionnaire-based cohort evaluation. The questionnaire, developed by Helen A. McNair with The Royal Marsden NHS Foundation Trust (2019), adapted from Olausson et al [*Technical Innovations & Patient Support in Radiation Oncology*, 3-4, 7-12 (2017)] and Ahlander et al., [*Journal of Advanced Nursing*, 72(6), 1368-1380 (2016)], is both qualitative and quantitative. Twelve patients that received standard of care radiation treatment for primary prostate or brain cancer, on either the MR-Linac or a CBCT-Linac, completed the questionnaire on the second and last fractions of treatment. Patients unable to read and write in English were excluded due to the lack of validated translations available for the questionnaire.

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Evaluation of Alternate Patient Education Methods Regarding Treatment-Related Side Effects in Preparation for Radiation Therapy

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Purpose: The goal of this study was to evaluate and compare the effectiveness of the protocols for new patient education presently used by cancer centres in Northern Ontario, and to suggest improvements based on this information. Prior to their first radiation treatment, patients meet with many health care providers in order to receive information regarding potential side effects and coping mechanisms. It has been observed that many new patients are unable to recall the information delivered during these meetings. As a result, many patients experience anxiety associated with a lack of understanding of the potential treatment-related side effects, decreasing their ability to cope. It is suggested that more effective education protocols would improve information retention, leading to better management of side effects and alleviating the psychosocial hardships associated with radiation treatment.

Methods: In order to reach those objectives, researchers planned to distribute questionnaires for two months to new radiation therapy patients being treated at three cancer centres. Patients were excluded if they: i) had received previous radiation treatment; ii) were scheduled for fewer than five treatments; or iii) did not have the capacity to consent.

The questionnaire consisted of quantitative and qualitative open and closed-ended questions enquiring about demographics, the presence of controllable barriers, support at appointments, the timing of information delivery, as well as methods of education and their effectiveness.

Results: Due to unforeseen circumstances, mainly associated with the COVID-19 pandemic, data collection was significantly compromised: the data was collected partially over six weeks in two of the centres and not in the third. In view of this, the data analysis and results should be considered preliminary. The responses collected regarding patient satisfaction, memory, and understanding were generally positive. When asked about barriers present during the education, just over 12% of the participants at one centre mentioned the presence of controllable barriers. Of these participants, some felt rushed or overwhelmed with the information provided and others stated that their education session was not conducted in a private setting. It was noted that these participants had lower scores in memory and understanding of the side effects, as well as poorer satisfaction with the education received when compared with others. The majority of participants appreciated that information was repeated across multiple appointments, and a few specifically stated that this was necessary to improve information retention. When asked about how participants would prefer to receive information, many favoured the combination of private teachings and written materials. There was minimal interest in a group education class. Responses regarding a video educational tool were comparable amongst all levels of interest.

Conclusion: Preliminary data indicates that minimal changes to current education protocols are required but that the delivery methods could be improved. For example, some participants showed interest in the use of videos in order to improve understanding. Also, it is crucial that health care providers consider the aforementioned controllable barriers which may negatively impact patient education sessions. In conclusion, the data demonstrates the importance of individualized education protocols in order to improve patient satisfaction, understanding and information retention.

Perceptions of Alberta Radiation Therapists in Providing Psychosocial Support to Patients Experiencing Symptoms of Anxiety and Depression

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