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we would encourage other RO societies to report their grant outcomes using a similar framework.

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2772

An Evidence-Based Industry-Standard Departmental Quality Improvement Project to Improve Customer Service – the Net Promoter Score

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Purpose/Objective(s): In 2003, an article in the Harvard Business Review by Reichheld, et al, identified a simple single investigative question – “How likely is it that you would recommend [company X] to a friend or colleague?” – that best represented customer loyalty and would predict company growth. With a renewed interest in patient satisfaction, this survey has been adapted in the healthcare community, but there are no known publications describing its use in a radiation oncology clinic.

Materials/Methods: From April of 2019 through February of 2022, hard-copy forms were given to patients after CT simulation and at completion of therapy in a private room onsite. The question read, “How likely are you to refer patients who are friends or family to [Institution] Radiation Oncology?” If he or she agreed to answer the survey, the respondent used a Likert scale from 0 to 10 (least to most likely) and added comments in a free-text section. Responses with a 0 to 10 score were logged with no identifying information and were classified as “promoters” (9 to 10) or “detractors” (0 to 6); a monthly Net Promoter Score was calculated by dividing the number of “promoters” by the sum of “promoters” and “detractors.” Comments, if available, were additionally transcribed. The scores and comments were shared with the department once weekly in morning huddle.

Results: Patients filled out 1318 forms (62%). Monthly Net Promoter scores ranged from 94.44 to 100. The average response was 9.74 with marks of 9.76, 9.74, 9.75, and 10.00 for 2019, 2020, 2021, and 2022, respectively. In 2019 and 2020, replies were separated by timepoints of CT simulation (9.73 and 9.71) and after radiotherapy (9.75 and 9.78). During this timeframe, comments were further analyzed by qualitative analysis and were classified into “staff appreciation,” “patient feelings/treatment,” “wait times,” “respect,” and “communication.”

Conclusion: The Net Promoter Score is an available tool to get immediate feedback from patients, allowing rapid service recovery, if needed. In our department, scores were consistently favorable with little difference through the COVID-19 pandemic, and patients noted that they were appreciated, felt respected, and experienced short wait times.

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2773

Evaluating the Short-Term Environmental and Clinical Effects of a Radiation Oncology Department's Response to the COVID-19 Pandemic (STEER COVID-19)

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Purpose/Objective(s): During the COVID-19 pandemic, hypofractionated regimens and virtual care was adopted by our institution to preserve hospital capacity and reduce foot traffic. This study's primary objective was to assess the collective environmental impact of these strategic changes by identifying sources of carbon dioxide equivalents (CO₂e). As sustainable healthcare is only justifiable if the quality of the care is maintained, we also evaluated the rate of radiation-related acute adverse event.

Materials/Methods: All patients treated with external beam radiation therapy from April 1, 2019 to March 31, 2021 at our single institution were identified (n=10,175) along with their radiotherapy visits (176,423 fractions), and visits to the radiation nursing clinic (RNC) or emergency (ER) department. A treatment regimen was considered hypofractionated if the dose per fraction was ≥ 240 cGy. If the dose per fraction was ≥ 600 cGy and the total dose of the treatment regimen was > 2000 cGy, then the treatment regimen was classified as SBRT. Out-patient hospital and virtual visits (n=75,853) during this same period were also analyzed. Environmental impact measures, including linear accelerator power usage, patient travel distances, and personal protection equipment (PPE) consumption were all converted into CO₂e. A waiver of individual patient consent was granted for this study by our institution's Research Ethics Board (REB).

Results: The use of curative hypofractionated regimens increased from 17% to 27% during the pandemic year. Twelve out of 15 cancer sites increased their use of hypofractionated regimens. Carbon footprint was reduced by 39% during the pandemic year (1,332,388 kg CO₂e) as compared to the pre-pandemic year (2,024,823 kg CO₂e). For comparison, the 744 tonnes of CO₂e saved during the pandemic year equates to the CO₂e produced by the annual energy consumption of 182 Canadian households or the CO₂e sequestered by 12,000 seedling trees planted and grown for 10 years. On average 121 kg CO₂e and 100 kg CO₂e were emitted per radiation regimen delivered during the pre-pandemic and pandemic year, respectively. Comparing patients in the pre-pandemic vs. pandemic year, there was a significant reduction in the proportion of hypofractionated patients who needed a visit to either the RNC (39% vs. 25%; p<0.001) or ER (6% vs. 2%; p<0.001) during and within 90 days of radiotherapy.

Conclusion: This study demonstrated the environmental benefits of increased use of hypofractionated regimens and virtual care, while assuring that there was no added acute radiation-related adverse event. Our findings support their continued use as one of many long-term strategies to reduce the environmental footprint of healthcare delivery. Treatment efficacy and side-effects will need to be assessed in subsequent years to further support the sustainability of these strategies.

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2774

Neurotoxicity Outcomes Following Whole Brain Radiation Therapy in Patients with Primary CNS Lymphoma

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Purpose/Objective(s): The role of radiation therapy (RT) in the management of primary CNS lymphoma (PCNSL) remains controversial. RT is associated with high response rates and may contribute to improved overall survival (OS). RT may also provide CNS disease control that facilitates successful salvage with stem cell transplantation in patients with chemotherapy-refractory disease. However, the long-term effects and neurologic sequelae from whole brain radiation therapy (WBRT) in younger patients with PCNSL has not been demonstrated. This retrospective study aimed to