Conclusions: Peer review rates had an initial decrease across regional cancer in both radical and palliative intent radiation. Overall, peer review rates remain modestly lower than the period immediately preceding the pandemic. All centres still maintained a high rate of PR during the initial eight months of the COVID-19 pandemic.

115

THE ADOPTION OF AN ELECTRONIC PATIENT REPORTED OUTCOME SOFTWARE DURING THE COVID-19 PANDEMIC – MAINTAINING COMMUNICATION WITH OUR PATIENTS

Jennifer Moyer[1], Rashmi Koul[2], Marshall Pitz[2]
[1]CancerCare Manitoba, Winnipeg, MB
[2]University of Manitoba, Winnipeg, MB

Purpose: Our Radiation Therapy department implemented an Electronic Patient Reported Outcomes software to facilitate patient communication of treatment related side effects and for COVID-19 screening during the pandemic. The software allowed patients to report COVID-19 and treatment related symptoms enabling radiation therapists to be more proactive in the patient's management prior to their arrival in the department.

Materials and Methods: Varian's Noona electronic patient report outcome software was deployed in radiation therapy using regularly scheduled patient questionnaires for COVID-19 screening and Edmonton Symptom Assessment Scale (ESAS) in conjunction with the symptom management aspects of the software. Radiation therapy staff were trained on the use of the software and registration process as Noona was not implemented as an integrated part of the patient's electronic medical record. Software was launched in late October and in the first 16 weeks 185 patients were registered. Inclusion criteria was for patients receiving a radical course of treatment with more than five scheduled fractions.

Results: The patient account activation rate after 16 weeks was 78%. There was a strong uptake on the completion of the scheduled questionnaires with 500 COVID-19 questionnaires completed out of the total 585 closed cases. Of the 585 closed cases, only 22 case cards were prioritized by the system as critical or high based on the symptoms reported. A subset of patients was asked to participate in one-on-one feedback sessions facilitated by the Varian implementation team and the results were very positive.

Conclusions: This software has proved to be valuable during the pandemic and in the future for patients that live in geographically isolated areas, allowing them to have reliable and consistent communication with their health care team, without having to travel to a large urban area. The rapid uptake and positive feedback from patients indicates a strong need to further expand the use of this software within our centre.

116

ADVANCING RADIATION ONCOLOGY PRACTICE IN ATLANTIC CANADA (AROPAC)

Murali Rajaraman[1], Robin Urquhart[1], Rebecca KS Wong[2], Nicole Harnett[2], Carol-Anne Davis[1], Clare Summers[1], Jean-Philippe Pignol[1]
[1]Dalhousie University, Halifax, NS
[2]University of Toronto, Toronto, ON

Purpose: The six radiation therapy (RT) centres in Atlantic Canada (AC) are equipped with modern technology capable of stereotactic, hypofractionated radiation techniques (SRS, SRT, SABR). However, these techniques remain significantly underutilized. A grant-funded, collaborative, regional quality improvement project was designed to support the implementation of precision RT techniques through inter-professional learning. The objective of this report is to describe the program design and early deliverables.

Materials and Methods: A team from the AC Cancer Centres and Princess Margaret Cancer Centre was convened. A needs survey of AC RT centres conducted in 2019 and updated in 2020 guided program development. Adapting to COVID-19 pandemic restrictions, a virtual CME program delivered in four phases over four months was planned. The program includes expert-led presentations and discussions, sharing of knowledge and protocols, and the development of centre-specific teams, goals, and implementation plans. A coordinated formative evaluation, using a realist evaluation approach, was designed to monitor implementation and address centre-specific and region-wide challenges to achieve accelerated implementation of precision RT techniques. Quantitative and qualitative methods will utilize the following data to be collected: use of the implementation strategies; timelines and local adoption of stereotactic RT techniques; specialists' knowledge and comfort level; specialists' satisfaction and experiences with the education received; and specialists' and decision-makers' perspectives on implementation processes, barriers, and facilitators.

Results: Phase I and II consisted of two half-day virtual meetings. One hundred twenty-six participants including radiation therapists (40), radiation oncologists (27), medical physicists (19), planners (15), trainees (10), administrators (six), nurses (four), and others (five) from all six AC RT centres. Centres with developed protocols for stereotactic RT techniques provided expert content. Virtual break-out rooms grouped centre-specific inter-disciplinary teams who determined customized goals and commenced the development of implementation plans with leadership approval. Follow-up meetings will be conducted at two and four months. Grant funding was used to support meeting organization, RTT participation, online communication platforms, and a project coordinator. The evaluation is ongoing.

Conclusions: With a collaborative expert-guided approach, evidence-based advancements in RT delivery can be accomplished in an accelerated manner on an AC regional basis despite variations in centre size and mandates. Evaluation of this process will inform on enablers to accelerate technology and improvements in the care of patients undergoing RT.

117

IMPACT OF THE COVID-19 PANDEMIC ON POSTGRADUATE TRAINING IN RADIATION ONCOLOGY

Meredith Giuliani[1], Diana Samoil[2], Ankit Agarwal[3], Jennifer Croke[1], Eleni Giannopoulos[2], Daniel W. Golden[4], Ariel E. Hirsch[5], Rachel Jimenez[6], Nauman H. Malik[1], Naa Kwarley Quartey[2], Janet Papadakos[2], Che Hsuan David Wu[7], Paris-Ann Ingledew[8]
[1]University of Toronto, Toronto, ON
[2]Princess Margaret Cancer Centre, Toronto, ON
[3]UNC School of Medicine, Chapel Hill, North Carolina
[4]University of Chicago, Chicago, IL
[5]Boston University School of Medicine, Boston, MA
[6]Harvard University, Boston, MA
[7]University of Calgary, Calgary, AB
[8]University of British Columbia, Vancouver, BC

Purpose: To report the degree to which post-graduate trainees in radiation oncology perceive their education has been impacted by COVID-19.

Materials and Methods: A cross-sectional online survey was administered in June 2020 to trainee members of Canadian Association of Radiation Oncology (CARO). The 82-item survey was adapted from a similar survey administered during SARS and included the Stanford Acute Stress Reaction and Ways of Coping

Questionnaires. The survey was developed using best practices including expert review and cognitive pre-testing. Frequency statistics are reported.

Results: Thirty-four trainees (10 fellows, 24 residents) responded. Nearly half of participants indicated that the overall impact of COVID-19 on training was negative/very negative (n=15; 46%) or neutral (n=15; 46%) with a small number indicating a positive/very positive (n=3; 9%). Majority of trainees agreed/ strongly agreed with the following statements: "I had difficulty concentrating on tasks because of concerns about COVID-19" (n=17; 52%), "I had fears about contracting COVID-19" (n=17; 52%), "I had fears of family/loved ones contracting COVID-19" (n= 29; 88%), "I felt socially isolated from friends and family because of COVID-19" (n=23; 70%), "I felt safe from COVID-19 in the hospital during my clinical duties" (n=15; 46%), and "I was concerned that my personal safety was at risk if/when I was redeployed from my planned clinical duties" (n=20; 61%). The changes that had a negative/very negative impact on learning included "the impact of limited patient contact" (n=19; 58%), "the impact of virtual patient contact" (n=11; 33%), and "limitations to travel and networking" (n=31; 91%). Most reported reduced teaching from staff (n=22; 66%). Two-thirds of trainees (n=22, 67%) reported severe (>50%) reduction in ambulatory clinical activities, 16 (49%) reported a moderate (<50%) reduction in new patient consultations, while virtual follow-ups (n=25: 76%) and in-patient clinical care activities (n=12; 36%) increased. Nearly half of respondents reported no impact on contouring (n=16; 49%), on-treatment management (n=17; 52%) and tumour boards (n=14; 42%) with the majority of other respondents reporting a decrease in these activities. Electives were cancelled in province (n=10/20; 50%), out-of-province (n=16/20; 80%) and internationally (n=15/18; 83%).

Conclusions: Significant changes to radiation oncology training were wrought by the COVID-19 pandemic and roughly half of trainees perceive that these changes had a negative impact on their training. Safety concerns for self and family were significant and strategies to mitigate these concerns should be a priority.

118
STRATEGIC TRAINING IN TRANSDISCIPLINARY RADIATION SCIENCE FOR THE 21ST CENTURY (STARS21): FIVE-YEAR PROSPECTIVE EVALUATION OF AN INNOVATIVE CURRICULUM IN RADIATION RESEARCH
Parasvi Patel, Shahbano Mustafa, Zhihui Liu, Shane Harding, Marianne Koritzinsky, Anne Koch
University of Toronto, Toronto, ON

Purpose: STARS21 is a national research training program that has been designed to provide graduate students, postdoctoral fellows, residents, and clinical fellows the skills essential to conduct translational and transdisciplinary research in radiation medicine and aims to address an unmet need for education in this area. We hypothesize that STARS21 enriches graduate and post-graduate training to enable increased trainee proficiencies that can enhance their overall research competencies. To address this further, we developed a novel evaluation tool.

Materials and Methods: From 2015-2020, trainees completed anonymized evaluations of the STARS21 curriculum that included pre- and post-curriculum questionnaires that rated their level of proficiency on a 5-point scale (1=not at all to 5=extremely) for seven research components. Data were analyzed separately for new (n=86) and returning (n=39) trainees. Two-sided Wilcoxon signed-rank test was used to compare pre- and post-curriculum scores for each component. A p-value ≤0.05 was considered statistically significant.

Results: The overall curriculum evaluation completion rate for all trainees was 89%, and for the pre- and post-curriculum evaluations measuring perceived changes in research competencies of new and returning trainees, the completion rates were 85% and 90%, respectively. Overall, 92% of the trainees indicated that the breadth and depth of the STARS21 curriculum was just right, and that the curriculum was current and relevant. Each year, 100% of trainees indicated that they would recommend the program to their peers. Both new and returning trainees demonstrated significant increases in proficiency in all measured areas of transdisciplinary radiation medicine (p<0.001), interprofessional collaboration (p<0.001 new, p=0.001 returning), transdisciplinary cancer research (p<0.001), translational cancer research (p<0.001), scientific communication (p<0.001 new, p=0.011 returning), personalized medicine (p<0.001 new, p=0.002 returning), and research commercialization (p<0.001). The largest increases (over 1 point) in proficiency were associated with transdisciplinary radiation medicine and research commercialization for both new and returning trainees.

Conclusions: STARS21 trainees value the curriculum and program. Using a novel evaluation tool, increased perceived trainee research competencies attributable to the program were demonstrated for all new and returning trainees. This evaluation tool could be applied to other research training programs or adapted to other education settings.

119
WHEN ALL LEARNERS WENT ONLINE: ENHANCING AN ONCOLOGY EDUCATION WEBSITE WITH THE ADDITION OF ASSESSMENT TO INFORM EVALUATION
Christopher Galbraith[1], Connor Bohlken[1], Paris-Ann Ingledew[2]
[1]University of British Columbia, Prince George, BC
[2]University of British Columbia, Vancouver, BC

Purpose: Cancer is the leading cause of morbidity and mortality in the developed world, yet gaps are identified in all levels of medical education. Learnoncology is an online resource originally developed to function as a standardized resource for medical students based on the Canadian oncology objectives. It has since expanded to reach 169 countries and multiple health professional programs.

Learnoncology was created using Kern's framework for curriculum development. It features multiple instructional modalities including modules, YouTube videos, podcasts, and virtual patients. COVID-19 has presented an opportunity to seek novel avenues which further expand our impact. To date, evaluation of the website has focused on Kirkpatrick's Evaluation hierarchy: user satisfaction. Recently, self-assessment in the form of a quiz bank was added to evaluate knowledge acquisition. A description of assessment method use was undertaken to evaluate the website and inform future development.

Materials and Methods: Between March 15, 2020 to June 30, 2020, 31 multiple choice assessments, consisting of over 300 questions were written to complement national oncology objectives and content on Learnoncology. Quizzes were developed by medical students, reviewed by practicing oncologists and hosted on Learnoncology. Users are provided with formative feedback in the form of written explanations and asked to complete a brief evaluation. The assessment module was added to the website in July 2020.

Results: Between July 2020 and February 2021 the quizzes were attempted 2143 times. Most commonly accessed topics included common cancers such as breast and prostate, as well as fundamental principles of oncology. User feedback indicates that quizzes are overall appropriate, with some users requesting more high level content and incorporation of pictures. The most common user type is medical students at 47.7%, but there has been