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Abstract 7: Table

Introduction	Female Speaker (n=419)	Male Speaker (n=807)
Formal (Dr/Prof)	306 (73.0%)	568 (70.4%)
Informal	113 (27.0%)	239 (29.6%)
First and Last Name	106 (25.3%)	222 (27.5%)
First Name only	7 (1.7%)	17 (2.1%)

regardless of speaker gender (64.0% male introducers vs 81.2% female introducers, $p < 0.0001$). Male introducers used formal titles equally for female vs male speakers (67.1% vs 79.2%, $p = 0.245$) and female introducers used formal titles equally for female vs male speakers (82.4% vs 81.7%, $p = 0.698$). In the entire cohort, female speakers were equally as likely to be introduced with a formal title compared to male speakers (73.0% vs 70.4%, $p = 0.361$). On MVA, male introducer was associated with decreased use of formal title (OR 0.39, 95% CI 0.29-0.52, $p < 0.001$), however speaker gender, year, type of talk, academic rank, degree, degree year, and geographic location of speaker institution were not associated.

Conclusion: Recent ASTRO annual meetings did not appear to show a gender bias in the use of formal titles in speaker introductions. However, male introducers were significantly less likely to introduce any speaker, regardless of gender, by their professional title; there was also a slight decrease in the use of formal introductions from 2017 to 2019. Providing formal ASTRO introducer guidelines for future meetings (similar to the "Language of Respect" issued for the ASCO 2020 Annual Meeting) may help increase the use of professional titles at future ASTRO meetings.

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LBA 8**Immunomodulatory Low-Dose Whole-Lung Radiation for Patients with COVID-19-Related Pneumonia**

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Purpose/Objective(s): Phase I clinical trials have established that low-dose, whole-lung radiotherapy (LD-RT) is safe for patients with COVID-19-related pneumonia. By focally dampening cytokine hyperactivation, LD-RT may improve COVID-19 outcomes through immunomodulation.

Materials/Methods: Patients with COVID-19-related pneumonia were treated with 1.5 Gy whole-lung LD-RT, followed for 28 days, and compared to age- and comorbidity-matched controls. Eligible patients were hospitalized, SARS-CoV-2 positive, had radiographic consolidations, and required supplemental oxygen. Efficacy endpoints were time to clinical recovery (TTCR), radiographic improvement, and biomarker response. Two-sample t-tests, chi-square tests, univariate Cox proportional hazard models, cumulative incidences, and hazard ratios were reported.

Results: Ten patients received whole-lung LD-RT between April 24 and May 24, 2020 and were blindly compared to ten controls treated with best supportive care and COVID-directed therapies. Median TTCR was 12 days in controls compared to 3 days in the LD-RT cohort (HR 2.9, $p = 0.05$). Median time to hospital discharge was 20 versus 12 days ($p = 0.19$) and intubation rates were 40% versus 10% ($p = 0.12$), respectively. 28-day overall survival was 90% for both cohorts. Age ≥ 65 was associated with lower oxygen requirement and shorter TTCR in the LD-RT cohort ($p = 0.01$) but not controls ($p = 0.40$). The LD-RT cohort had superior improvement in radiographs ($p = 0.03$) and delirium ($p < 0.01$). Change in

inflammatory biomarkers was detected for both C-reactive protein (CRP, $p < 0.01$) and lactate dehydrogenase ($p = 0.03$), with improvements compared to pre-LD-RT levels ($p = 0.01$ and $p = 0.07$, respectively). CRP rose at a median rate of 22% per day before LD-RT, but thereafter fell more rapidly than in controls ($p = 0.01$), at a median rate of 11% per day. Creatine kinase also changed after LD-RT ($p < 0.01$), with improvement over controls approaching significance ($p = 0.08$). Troponin rose 5% per day in controls versus 1% per day after LD-RT, but this was not significant ($p = 0.32$). Liver function tests remained low following LD-RT but rose more commonly in controls (AST $p = 0.07$; ALT $p = 0.04$). Immunomodulatory LD-RT reduced white blood cell count ($p = 0.04$), monocytes ($p = 0.02$), and neutrophil-to-lymphocyte ratio ($p = 0.04$). Differences in renal function ($p = 0.46$) and clotting factors ($p = 0.49$) were not significant.

Conclusion: A cohort of predominantly elderly hospitalized patients with COVID-19-related pneumonia were recovered to room air quicker than age- and comorbidity-matched controls treated with best supportive care alone or with COVID drug therapies. LD-RT improved delirium, radiographs, and biomarkers, with no significant acute toxicity. LD-RT for patients with COVID-19 appears safe and may be an effective immunomodulatory treatment to speed recovery and prevent muscle, cardiac, and/or hepatic injury. Confirmatory clinical trials are needed. Clinical Trial Registration: NCT04366791.

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LBA 9**A Statewide Multi-institutional Study of Asymptomatic Pre-Treatment Testing of Radiation Therapy Patients for SARS-CoV-2 in a High-Incidence Region of the United States**

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Purpose/Objective(s): To establish the prevalence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in asymptomatic patients scheduled to receive radiation therapy and its impact on management decisions.

Materials/Methods: Between April 2020 and July 2020, patients without influenza-like-illness (ILI) symptoms at four radiation oncology departments (2 academic university hospitals and 2 community hospitals) underwent polymerase chain reaction (PCR) testing for SARS-CoV-2 prior to the initiation of treatment. Three centers were located in New Jersey and one in Southeast Pennsylvania. According to the centers of disease control (CDC), during this period of time, the 7-day average of daily confirmed cases in this region ranged from 3,197 (April 27, 2020) to 295 (July 24, 2020). Testing strategy was determined by each individual institution (all patients vs. chemo-radiotherapy patients only, etc.). Patients were tested either prior to radiotherapy simulation or after simulation but prior to treatment initiation. Patients tested for indications of ILI symptoms were excluded from this analysis. Management of SARS-CoV-2-positive patients was individualized based on disease site and acuity.

Results: Over a three-month period, a total of 385 asymptomatic patients were tested either prior to simulation ($n = 154$) or post-simulation, prior to treatment ($n = 230$). A total of 5 patients tested positive for SARS-CoV-2, for a pre-treatment prevalence of 1.3% (2.6% in North/Central NJ and 0.4% in Southern NJ/Southeast PA). The median age of positive patients was 58 years (range: 38-78 years). All positive patients were white and were relatively equally distributed with regard to gender (2 male, 3 female)

and ethnicity (2 Hispanic and 3 non-Hispanic). The median Charlson comorbidity score among positive patients was 5. All 5 patients were treated for different primary tumor sites, the large majority had advanced disease (80%), and all were treated for curative intent. The majority of positive patients were being treated with either sequential or concurrent immunosuppressive systemic therapy (80%). Initiation of treatment was delayed for 14 days with the addition of re-testing for 4 patients, while one patient was treated without delay but with additional infectious-disease precautions.

Conclusion: In the era of universal respiratory and contact precautions, broad-based pre-treatment asymptomatic testing of radiation oncology patients for SARS-CoV-2 is of limited value, even in a high-incidence region. Future strategies may include focused asymptomatic testing for higher-risk patients according to demographics, comorbidities, disease stage and combination of treatment with cytotoxic chemotherapy.

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Evaluating the Impact of COVID-19 on Clinical Decision Making During the Initial Outbreak in a High-prevalence Environment



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Purpose/Objective(s): Being at the epicenter of the initial outbreak of COVID-19 in the US, we sought to characterize the impact of the pandemic on oncologic care at the two largest radiation oncology departments within the Rutgers-Barnabas health system in New Jersey (NJ). We hypothesized that management was modified for a significant percentage of patients due to a combination of patients' fears, physician's efforts to minimize patient exposure to the healthcare setting and the reallocation of hospital resources.

Materials/Methods: A multi-institutional retrospective review was performed on all patients seen at two radiation oncology departments in NJ between 3/9/20-6/15/20, corresponding to peak of the pandemic in the state. Patients who were seen in consultation either via telemedicine or in person, undergoing treatment planning or on active treatment during this period were included. Patients whose care had been modified due to the pandemic were identified, and the details of how care had been altered were documented. Care changes were classified into several categories including RT delay, RT fractionation change, RT omission, RT modality change, disruption of RT course and change in sequencing of treatment.

Results: All 482 patients seen at the two radiation oncology departments during the period of interest were identified. 103 patients (21.3%) experienced at least one COVID related care change. Of the 103 patients who experienced care changes, the most common change was a delay in RT (53.3%), followed by RT omission (10.6%), change in the sequencing of treatment (7.8%) and RT fractionation change (6.8%). RT delays were attributed to the reallocation of hospital resources for 43.6% of patients, physician's independent clinical judgement for 31% of patients, patient's own fears of presenting to clinic for 20% patients and positive COVID tests for 5.5% patients. Among the patients for whom RT was omitted, the decision to avoid RT as part of the treatment course was physician driven for 6 (54.5%). Patients with the following tumor types were most likely to experience care changes: rectal (75%), endometrial (44%), breast (36.5%), H&N (23.3%) and prostate (12.9%).

Conclusion: Over a fifth of the patient cohort experienced changes in care including RT delays, omission, or changes in the sequencing of treatment and fractionation. The likelihood of care changes also varied noticeably across different tumor types. This study, set at the heart of the initial outbreak, may provide a valuable perspective for the oncology community throughout the rest of the nation on how cancer care may be affected in

balancing the need for protecting patients from COVID-19 and optimizing cancer outcomes.

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Initial Impact and Operational Response of Radiation Oncology Practices to the COVID-19 Pandemic in the United States, Europe, and Latin America



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Purpose/Objective(s): The COVID-19 pandemic has profoundly changed practice patterns in medicine around the world. The full impact on radiation oncology in the United States (US), Europe, and Latin America remains unknown. We surveyed radiation oncology practice leaders from each region to gauge initial impact and immediate operational responses to the pandemic.

Materials/Methods: From April 16 - May 30, 2020, the American Society for Radiation Oncology (ASTRO), European Society for Radiation Oncology (ESTRO), and Rayos Contra Cancer in Latin America surveyed radiation oncology practices by email to gauge initial impact and immediate operational responses to the COVID-19 pandemic.

Results: In total, 474 of 1,246 practice leaders responded across 45 nations [222/517 (43%) in the US, 139/500 (28%) from 29 nations in Europe, 115/229 (50%) from 15 nations in Latin America]. All practices in the US and Europe and 97% of practices in Latin America reported uninterrupted operation. Average treatment volumes were reduced to 68%, 75%, and 59% of baseline in the US, Europe, and Latin America, respectively. Postponement of radiation therapy for low-risk patients was widely adopted (92%, 65%, 60%). Estimated reductions in revenue greater than 20% were reported by 71%, 25%, and 53% of US, European and Latin American practices, respectively. Nearly all practices (98%, 95%, 97%) implemented formal safety procedures to protect patients and staff from infections. Staffing (70%, 57%, 52%) and PPE shortages (69%, 48%, 51%) impacted all regions; first-time adoption of telemedicine programs was widespread (89%, 76%, 64%).

Conclusion: Surveyed impact of the early COVID-19 pandemic on radiation oncology practices across the US, Europe, and Latin America was substantial. Treatment access policies reflected rapidly published