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Abstract

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COVID-19 Pandemic-Induced Practice Changes: A Pilot Study of The American Association of Physicists in Medicine (AAPM) Southern California Chapter

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Abstract

Objective: To investigate radiation medical physicist practices' changes in Southern California Radiation Oncology centers in response to the COVID-19 pandemic.

Methods: We chose to conduct our online survey via SurveyMonkey, which is a free online survey software that allows users to gather data from a large pool of respondents easily and conveniently. We emailed the survey to every AAPM Southern California Chapter center, with the aim of obtaining unique results from each. We designed 10 survey questions, mainly measuring: treatment patient numbers per day; changes in patient load and center travel rule; who was allowed to work from home (WFH); if new procedures were implemented to reduce the spread of COVID-19; availability of telemedicine; and in terms of radiation therapy treatments, were there any changes in fractionation schedule or type of treatments? All the responses were anonymized and analyzed using both qualitative and quantitative research methods.

Results: At the end of a 4-week collection period, we received 36 responses, each response representing a different radiation oncology center in Southern California. The average treated patients per day among the centers was 2,461. Results also showed that there have been newly implemented Covid-related department and hospital policies, such as mandatory mask wearing, covid testing, staff vaccination, and limited visitor policy. Results further indicate several new hybrid work models adopted to limit onsite staff capacity; for example, staggered schedules, video conferences, and different work from home (WFH) models. Results also show changes in treatment methods in response to the pandemic, such as increased use of telemedicine, changes in radiation treatment methods, increases in hypo fractionation of palliative, breast cancer, prostate cancer cases, SBRT and Brachytherapy.

Conclusion: Results showed that the Covid-19 pandemic not only changed our radiation oncology department infection control policies and onsite work models, but also changed our daily practice including cancer treatment methods. As the pandemic and its various strains continue to shape how our radiation oncology centers operate and our center's ability to effectively treat patients, it is critical to conduct a national survey to verify and find additional modifications induced by the pandemic. In future studies, we plan to modify our survey questions to cater to the larger purpose of investigating changes in medical physics practice in response to the COVID-19 pandemic throughout the nation's radiation oncology centers.