

Editorial

The Top 10 Downloads of 2020 in ASTRO's *Advances in Radiation Oncology*

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The year 2020 was an extraordinary year for publishing. The American Society for Radiation Oncology's (ASTRO's) *Advances in Radiation Oncology* received 130 manuscripts focused on the effect of coronavirus disease 2019 (COVID-19) on our profession and our patients. In the first week of March, our editors realized that our readers would soon be searching knowledge of best practices of operating their clinics, and although the pandemic was starting to dominate the news, there was nothing in the medical literature that they could turn to. Realizing that we could not be complacent and wait for the manuscripts to come to us, we commissioned a series of first-person accounts from Wuhan, Northern Italy, Beijing, and, ultimately, Seattle and New York. Of the top 10 downloads from ASTRO's *Advances* published in 2020, 8 were COVID related.^{1,2} Rivera et al³ published a review in the early weeks of the pandemic summarizing current best practices and recommendations. As a gold open access journal, our articles are free of charge for all to read whether provider or patient, always, across the globe. After the initial publication of firsthand accounts, we then published a series of treatment guidelines setting forth best practices for hypofractionation.^{4,5} Two of these, focused on prostate cancer and breast cancer radiation therapy, were our 2 top downloads last year. Our fifth most downloaded article was a reflection on intergenerational differences in the response to the pandemic by Gharzai et al.⁶

Aside from the current COVID-19 related publications, 2 publications pertaining to the application of

imaging technique in target delineation and tumor monitoring also received increased attention. The dual-energy cone beam computed tomography paper by Sajja et al⁷ provided critical review dual-energy cone beam computed tomography technical properties and at the same time offered examples of how the technology can be used in adaptive radiation therapy, brachytherapy, proton therapy, radiomics, and radiopharmaceuticals. There has been a paucity of similar publications in the past 5 to 10 years, and yet the topic is particularly relevant to many in the radiation oncology and physics community. In the second manuscript by Dai et al,⁸ the authors examined the use of multiparametric magnetic resonance imaging with mask region-based convolutional neural networks for prostate gland and intraprostatic lesion segmentation. Similarly in its focus on imaging, this is a technical radiation physics research paper tailored to a selected group of readers in the radiation oncology community. The relative popularity of the 2 aforementioned manuscripts perhaps points to an area of unmet demand for the journal to serve as a channel for imaging and other technical publications pertinent to daily clinical practice in the radiation oncology community.

Top 10 Downloads Published in 2020 in ASTRO's *Advances in Radiation Oncology*

1. Prostate cancer radiation therapy recommendations in response to COVID-19
2. Breast radiation therapy under COVID-19 pandemic resource constraints—approaches to defer or shorten treatment from a comprehensive cancer center in the United States

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3. Running a radiation oncology department at the time of coronavirus: An Italian experience
4. Technical principles of dual-energy cone beam computed tomography and clinical applications for radiation therapy
5. Playing into stereotypes: Engaging Millennials and Generation Z in the COVID-19 pandemic response
6. Extent of prior lung irradiation and mortality in COVID-19 patients with a cancer history
7. The impact of COVID-19 on radiation oncology clinics and patients with cancer in the United States
8. Management of locally advanced rectal cancer during the COVID-19 pandemic: A necessary paradigm change at Memorial Sloan Kettering Cancer Center
9. Segmentation of the prostatic gland and the intraprostatic lesions on multiparametric magnetic resonance imaging using mask region-based convolutional neural networks
10. Contingency plans in a radiation oncology department amid the 2019-nCoV outbreak in Switzerland

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