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Brief Opinion

Making the Most of a Crisis: A Proposal for Network-Based Palliative Radiation Therapy to Reduce Travel Toxicity



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Abstract

A multipronged model is proposed to improve the delivery of palliative radiotherapy by increasing access to care and reducing travel burden for patients.

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Introduction

During the Great Financial Crisis, former Obama Chief of Staff Rahm Emanuel famously stated "you never want a serious crisis to go to waste." The coronavirus disease 2019 pandemic, in addition to upheaving societal norms, has pushed radiation oncologists to reconsider the utilization of more efficient treatment regimens. Colleagues further defined a 3-tiered system to determine which patients receiving palliative radiation therapy (PRT) necessitated urgent versus delayed care. Though contentious, such frameworks are useful to constrained departments asking, "When to treat?"

Yet, the question of "where to treat?" may actually be of more importance to PRT. As travel distance is a

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known barrier to RT,⁶ the current pandemic provides additional impetus to improve patient-centered care by coordinating access to PRT closer to home or in less endemic regions.

Delays in care may lead to worse outcomes⁷ and could be mitigated by establishing an accredited referral network of community practice physicians providing high-quality PRT. In doing so, patients whose PRT would be delayed at urban centers owing to resource constraints or exposure risks may receive expeditious treatment at local facilities with trusted providers. This network would not only minimize travel burden in a patient population with limited life expectancy, but may reduce costs,⁸ lessen financial toxicity,⁹ and improve quality of life.¹⁰

We thus propose a multipronged restructuring of PRT delivery that considers travel and exposure burdens. This includes the establishment of a national network of PRT providers, implementation of travel burden assessment, and the allowance for PRT on

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research protocols at any facility (private practice or academic). The development of an established provider network would facilitate efficient referrals to local facilities offering PRT of comparable quality with less burden on our most vulnerable patients.

Referral Network

The network providers would adhere to established PRT principles, including minimizing travel burden (ie, same day set-up and treatment), offering low-complexity treatments (2-dimensional or 3-dimensional techniques), prescribing single/hypofractionated regimens when appropriate, and offering supportive therapies to maximize quality-of-life.

The initial network would be comprised of facilities accredited through the American Society for Radiation Oncology Accreditation Program for Excellence, the American College of Radiation Oncology, or the American College of Radiology, which evaluate practice consistency with evidence-based guidelines and consensus statements. As such practices are often community-based, patients currently traveling great distances to receive PRT with their academic provider may benefit from receiving similar care locally.

Optimal use of this network would be facilitated by routine implementation of travel burden assessment by academic/urban centers. Additional barriers can be removed if research protocols would allow for PRT to be delivered at any accredited facility, particularly for studies where the primary question is not radiation related.

Conclusions

We propose restructuring our PRT delivery model through the development of a robust network of accredited providers to improve access for patients and reduce travel burden. Although the coronavirus disease 2019 pandemic has spurred rapid practice changes surrounding patient prioritization and treatment decisions, the lessons from this global crisis can be a platform upon which sustainable changes can be implemented to improve access to, cost, and quality of PRT.

References

- Rahm Emanuel on the opportunities of crisis. The Wall Street Journal. Available at: https://www.wsj.com/video/rahm-emanuelon-the-opportunities-of-crisis/3F6B9880-D1FD-492B-9A3D-70DB E8EB9E97.html. Accessed June 18, 2020.
- Marijnen CAM, Peters FP, Rodel C, et al. International expert consensus statement regarding radiotherapy treatment options for rectal cancer during the COVID 19 pandemic. *Radiother Oncol*. 2020;148:213-215.
- Guckenberger M, Belka C, Bezjak A, et al. Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic: An ESTRO-ASTRO consensus statement. *Radiother Oncol.* 2020; 146:223-229.
- Yerramilli D, Xu AJ, Gillespie EF, et al. Palliative radiation therapy for oncologic emergencies in the setting of COVID-19: Approaches to balancing risks and benefits. Adv Radiat Oncol. 2020;5:589-594.
- Johnson K. 'Brutal' plan to restrict palliative radiation during pandemic. Medscape. 2020 April 06. Available at: https://www. medscape.com/viewarticle/928185. Accessed June 18, 2020.
- Lin CC, Bruinooge SS, Kirkwood MK, et al. Association between geographic access to cancer care and receipt of radiation therapy for rectal cancer. *Int J Radiat Oncol Biol Phys.* 2016;94:719-728.
- 7. Sharpless NE. COVID-19 and cancer. Science. 2020;368:1290.
- Bekelman JE, Sylwestrzak G, Barron J, et al. Uptake and costs of hypofractionated vs conventional whole breast irradiation after breast conserving surgery in the United States, 2008-2013. *JAMA*. 2014;312:2542-2550.
- Desai A, Gyawali B. Financial toxicity of cancer treatment: Moving the discussion from acknowledgement of the problem to identifying solutions. EClinical Medicine. 2020;20:100269.
- Ambroggi M, Biasini C, Del Giovane C, Fornari F, Cavanna L. Distance as a barrier to cancer diagnosis and treatment: Review of the literature. *Oncologist*. 2015;20:1378-1385.