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

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<b>Abstract:</b>	

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

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## Proposal

During the Great Financial Crisis, former Obama Chief of Staff Rahm Emanuel famously stated “you never want a serious crisis to go to waste.”<sup>1</sup> The COVID-19 pandemic, in addition to upheaving societal norms, has pushed radiation oncologists to reconsider the utilization of more efficient treatment regimens.<sup>2,3</sup> Colleagues further defined a three-tiered system to determine which patients receiving palliative radiotherapy (PRT) necessitated urgent versus delayed care.<sup>4</sup> Though contentious,<sup>5</sup> 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 known barrier to RT,<sup>6</sup> 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 outcomes<sup>7</sup> 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 due 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,<sup>8</sup> lessen financial toxicity<sup>9</sup> and improve quality of life<sup>10</sup>.

We thus propose a multi-pronged restructuring of PRT delivery which considers travel and exposure burdens. This includes the establishment of a national network of palliative RT providers, implementation of travel burden assessment, and the allowance for palliative RT at any facility on research protocols. 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.

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4 Referral Network  
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6 The network providers would adhere to established PRT principles, including minimizing travel  
7 burden (i.e. same day set-up and treatment), offering low-complexity treatments (two-  
8 dimensional or three-dimensional techniques), prescribing single/hypofractionated regimens  
9 when appropriate, and offering supportive therapies to maximize quality-of-life.  
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11 The initial network would comprise of facilities accredited through ASTRO Accreditation  
12 Program for Excellence (APEX), the American College of Radiation Oncology (ACRO) or the  
13 American College of Radiology (ACR), which evaluate practice consistency with evidence-  
14 based guidelines and consensus statements. As such practices are often community-based,  
15 patients currently travelling great distances to receive PRT with their academic provider may  
16 benefit from receiving similar care locally.  
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18 Optimal use of this network would be facilitated by routine implementation of travel burden  
19 assessment by academic/urban centers. Additional barriers can be removed if research  
20 protocols would allow for PRT to be delivered at any accredited-facility, particularly for studies  
21 where the primary question is not radiation-related.  
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44 Conclusion  
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46 We propose restructuring our PRT delivery model through the development of a robust network  
47 of accredited providers to improve access for patients and reducing travel burden.  
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50 While the COVID pandemic has spurred rapid practice changes surrounding patient  
51 prioritization and treatment decisions, the lessons from this global crisis can be a platform upon  
52 which sustainable changes can be implemented to improve the access, cost, and quality of  
53 PRT.  
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