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Lessons for Ukraine; how the international radiotherapy community can respond and support both now and in the future.

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Letter to the editor of *Advances in Radiation Oncology*

Lessons for Ukraine; how the international radiotherapy community can respond and support both now and in the future.

By

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Letter to ASTRO: *Advances in Radiation Oncology Journal*

Lessons for Ukraine; how the international radiotherapy community can respond and support both now and in the future.

The humanitarian crisis in Ukraine promoted a huge outpouring of support. For many, the question was what to do and how to help? In the radiotherapy community the challenges

our Ukrainian colleagues would face were all too clear; how to maintain radiotherapy services in a war.

The World Health Organization (WHO) Emergency Committee realized the unique challenges radiotherapy would face and so reached out to the [Global Coalition for Radiotherapy \(GCR\)](#) for support. Through the GCR's global network, the radiotherapy community joined forces with the ECO/ASCO Special Network on the Impact of the War in Ukraine on Cancer. The response from professionals, societies, organizations and industry was as fast as it was phenomenal. A global [Radiotherapy Task Force](#) was formed. Within weeks, this network was able to curate needs with the help of the [Ukrainian Association of Medical Physics](#) and many others, as the global community came together to help devise solutions. A summary of the position to date has been published in the [Lancet Oncology](#). The Radiotherapy Task Force website also provides regular updates on the ever-changing situation: [Ukraine | GCR \(globalradiotherapy.org\)](#).

The challenges in Ukraine for a technical speciality like radiotherapy are many; internal displacement of people (up to 10M at the time of writing), infrastructure under threat or occupation, dependence on IT, technical and radiation supply chains, and disruption to their pre-war agreed modernization program. Surrounding countries face a migrant crisis, which for cancer patients, is causing treatment to be interrupted. For the surrounding Eastern European countries the challenge is the influx of refugees (6.2M people had left Ukraine by 16 May 2022 and more than half to Poland) some of whom need to continue their cancer care. While Eastern European centers are coping with the increased capacity for now, many were already challenged in their radiotherapy provision before the crisis.

The information emerging is of the amazing resilience of the radiotherapy work force and their cancer patients. Outside of this conflict we can only admire what they are achieving. At the time of submission, a team of engineers and industry worked tirelessly together in Kyiv to fix a linear accelerator that was unoperational, all under the pressures of a war zone. Staff are currently being trained on the updated technology and patients should expect to begin treatments in the next two weeks. Never before has an entire country's radiotherapy service been challenged. Lessons can be learned; the global community can respond when asked and the volunteer space, thanks to technology and communication, can become international and broad (translating, IT solutions, supplies, remote training and planning, advocating, donations, etc.). Coordination needs to rely on accurate, real-time information from legitimate sources. The entire radiotherapy community can respond to these needs as they work as one; clinicians, physicists, technicians, industry, societies and advocates. Radiotherapy is a small community, but with the amplifier of technology, both virtual and remote, solutions can be suggested and implemented.

Radiotherapy is needed in around 50% of cancer patients and needed in around 40% of cures. Worldwide there is an underinvestment in radiotherapy. We need to future proof the world against global disasters; war, climate, nuclear, pandemics, which will surely interrupt cancer services. We must also develop the way the global community can respond. In radiotherapy the emergency task force has shown how agile the community can be by working together inclusively. For those willing to help, and provide ideas and solutions,

please join the Global Coalition for Radiotherapy Emergency Task Force and help us support Ukraine and surrounding countries.

Pat Price, Darien Laird and Shandi Barney
Global Coalition for Radiotherapy

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Declaration of interests

Shandi Barney reports a relationship with Advanced Medical Technology Association that includes: employment.

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