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EDITORIAL

The Role of the Global Coalition for Radiotherapy in Political Advocacy for Radiation Therapy as a Cost-Effective and Underfunded Modality Around the World



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The Global Coalition for Radiotherapy (GCR)¹ was formed in April 2020 to understand the challenges and opportunities facing radiation therapy delivery during the radical disruption of cancer services worldwide caused by the COVID-19 pandemic. Timely advice and experience of adapting radiation therapy during the pandemic was shared by frontline radiation oncologists from around the world via 3-weekly video meetings, daily website updates of relevant publications, and a Google forum. As the world moved through the pandemic, the momentum of the GCR grew, and virtual meetings attracted those with responsibility for global radiation therapy delivery: industry, providers of care, global health care organizations, patient advocates, and radiation therapy professional leaders. Some participants were invited by the GCR directly and in turn recommended others to join, including relevant stakeholders outside the mainstream radiation therapy community. As the GCR network organically expanded, one-to-one interviews with some of the global radiation therapy leaders helped identify the value and future role of the GCR, providing a forum for developing strategies for how radiation therapy can build back better through innovation and global collaboration, ensuring greater and more equitable access to radiation therapy and thus saving lives. To ensure

long-term sustainability, an organizational and governance structure is being set up, to be financially supported by foundations, charities, and related institutions. The GCR will now seek to involve and communicate more extensively with the radiation therapy community worldwide, expand the network of radiation therapy ambassadors, and identify key areas of collaboration. Political advocacy is one such key area.

Radiation Therapy Use During the Pandemic

There is a clear need for a collective transformation to increase access to high-quality radiation therapy to save more patient lives and deal with the COVID-19–induced cancer backlog and future worldwide cancer burden.² The COVID-19 pandemic early on prioritized curative cancer therapy,³ and so continuation of radiation therapy was highlighted, often over other cancer therapies. Radiation therapy centers began to work more collectively, and radiation therapy emerged as a COVID-19–safe cancer therapy that could not only be used to continue to treat patients during COVID-19 but could also substitute for cancelled surgery in some tumors. Radiation therapy could adapt well to

global discussion for the benefit of radiation therapy and patient care at a very difficult and challenging time, with no political or geographical barriers. They are acknowledged more fully on the GCR website, where recorded digital sessions and written summaries are available.

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social distancing and infectious disease restrictions, and there is a high-tech workforce ready for the fast-growing opportunities in digital transformation.

Cost Effectiveness and Underfunding of Radiation Therapy

Radiation therapy is a relatively inexpensive and highly cost-effective treatment that saves lives and can reduce overall healthcare costs.⁴ Atun et al⁵ conclude that the amount of money needed to bring full access to radiation therapy is extensive; however, rolled out over 20 years and compared with human capital benefits over those years, the investment starts to pay off after 10 years. Full income benefits are realized even sooner if radiation therapy delivery is optimized with quicker planning, swifter quality assurance, shorter timeslots, and reduced investment, with the result that the cost of radiation therapy could be halved. Some of this benefit can be realized now with hypofractionation, but significant barriers exist to accelerating adoption of hypofractionation as a standard of care. As an example, data from Lievens et al⁴ show that reimbursement policies are not aligned even within Europe, with large variability in financing structures and with hypofractionation in most countries disincentivized (lower reimbursement). Different and more optimal reimbursement models are needed globally for radiation therapy, such as episode-based payments and provisional reimbursement for innovation that is still under evaluation. Political advocacy to optimize reimbursement and put a correct value on radiation therapy may be one of the most important steps to prioritize clinical benefit, accelerate technical innovation, and remove these disincentives.

The Need for Political Advocacy for Radiation Therapy

The link between national economies and health have been brought into harsh focus with the COVID-19 pandemic. This is the time to make the economic case for radiation therapy; curing cancer and palliating symptoms produces economic benefit, and radiation therapy is one of the most cost-effective cancer treatments. Radiation therapy is needed in more than 50% of patients with cancer and is involved in 40% of cancer cures, but there is insufficient access to radiation therapy around the world and a shortage of funding devoted to it. Radiation therapy expenditure in Europe is a mere 7%⁴ of the cancer care budget. Political action is needed on behalf of radiation therapy. Other non-surgical cancer treatment modalities such as chemotherapy and immunotherapy are promoted and backed by large pharmaceutical budgets and media campaigns from patients and charities; radiation therapy deserves the same visibility.

The GCR has a clear opportunity and role in advocacy for radiation therapy; radiation therapy is poorly understood

outside our communities. Advocacy is needed in a number of areas: healthcare providers and insurers, public opinion, research and development within cancer care, and at a political level. These stakeholders are making decisions that affect cancer care, often without basic understanding of radiation therapy. It is critical for the radiation therapy community to bind together globally to advance the appreciation and value of radiation therapy. With COVID-19 causing economic disruption around the world and putting such pressure on health care budgets, this is the moment for clear and powerful political advocacy for radiation therapy. Radiation therapy is a cost-effective cancer treatment that has been, until now, totally undervalued and underfunded and yet is one of the most important cancer therapy solutions. As we emerge from COVID-19, we must be ready to advocate for innovation and access to high quality radiation therapy.

Barriers for Radiation Therapy to Overcome Through Advocacy

The level of understanding of radiation therapy among the public, healthcare providers, and governments is usually poor. Radiation therapy is a multidisciplinary, technology-based discipline staffed by uniquely trained professionals and requiring equipment and information technology (IT) infrastructure. It is often seen as inaccessible and complex and carries an inherent fear of “radiation.” Radiation therapy is simply often not at the center of the health and cancer care agenda. The barriers to such prioritization include inadequate understanding, unsatisfactory funding models, often perverse tariffs, and healthcare organization infrastructures and inherent difficulties dealing with rapidly developing technology. There is a critical and urgent need for action in advocacy. The GCR's unique hybrid nature brings together patient advocates, industry partners, clinical scientists, and those advising on global health care policies. This multidisciplinary hub makes the GCR well placed to support advocacy on behalf of radiation therapy.

Before the pandemic, the lack of investment in radiation therapy led to severe inequitable access. Although approximately half of patients with cancer would benefit from radiation therapy, there is a worldwide shortfall of radiation therapy services, with around 90% of the population in low-income countries lacking access to radiation therapy and only 29% of such countries having any operating radiation therapy services.⁶ Even in high-income countries, radiation therapy has been used suboptimally despite facilities being available.⁵ This work published by the Global Task Force on Radiotherapy and Cancer Control clearly laid out actions needed worldwide to save 1 million lives a year by optimal access to high-quality radiation therapy. However, these actions have not yet sufficiently been acted upon and implemented. A global approach with political advocacy is needed and arguably possible with the opportunities in the

post–COVID-19 era. The GCR is one example of ways to organize and amplify this collective voice for radiation therapy.

Global Collaboration: Speaking with One Voice

Lessons can be learned from previous political advocacy for radiation therapy. Australia successfully expanded its radiation therapy base by engaging practitioners in rural areas.⁷ The United Kingdom has an ongoing advocacy by directly engaging cross-party parliamentarians via an All Party Parliamentary Group on Radiotherapy⁸ and a national Radiotherapy4Life campaign.⁹ Table 1 summarizes some of the main elements needed for political campaigning. The GCR is well placed to support many of these elements and is committed to supporting political advocacy on a regional and local level. For the GCR to fulfil its advocacy goals, it is developing a digital communication hub to develop links

with complementary organizations and professionals in IT, artificial intelligence, data collection, cloud-based solutions, global health economics, advocacy, and messaging. Knowledge of comparison of funding, tariffs, reimbursement, and best practices in countries can be shared, as well as media stories and knowledge of public opinion. Mechanisms to do this are being developed and put in place, including a planned round table, regular video exchanges, communication via Slack forums, publication of multidisciplinary white papers, tool kits and advice for advocacy, and future support for data analysis and communication strategies.

Success requires key interaction with political and policy leaders and decision makers, delivery of relevant information affecting change, good communication within and outside the radiation therapy community, and best practice sharing and support for individual countries as well as global radiation therapy advocates. As the GCR develops, it will remain a nimble and agile online community

Table 1 Elements for political advocacy

Actions and elements needed	What is involved	Challenges
Consensus from community about potential/future/barriers	Multidisciplinary vision with endorsements	Vested interest in no change
Show the need	Data on survival benefit and reduction in toxicity	Inadequate data Survivorship issues seen as soft endpoints
Develop a plan	Defining where we are now and how to get to the future	Align elements of plan with political agenda
Sustainability	Road map for sustainability and longevity	Convincing that momentum can be sustained
Funding strategy/economic argument	Communicating what savings can be made	Funding models different from other cancer modalities
Added value	Making case for health of nation, high-tech training, wealth creation Development of artificial intelligence Introduction of technology	Marrying with other political agendas
Integration with cancer message	Showing how this fits with current integrated cancer strategies	Keeping the radiation therapy voice heard within better-funded cancer disciplines
Future proofing and technology introduction	Integration with imaging and precision and future technology introductions	Having a clear vision for introducing new technology
Industry being seen to support and not to lead or gain competitive advantage	Vendor-neutral industry consortium	Collective buy-in from industry within competition and business rules
Proposing radiation therapy–specific solutions: <ul style="list-style-type: none"> • Technical developments • Commissioning • Workforce/training • Workflow tools • Multidisciplinary working • Quality assurance and control • Precision radiosurgery • Data assessment in technology trials • Satellite centers vs comprehensive cancer centers • Radiation therapy informatics 	Innovation in: <ul style="list-style-type: none"> Digital remote data collection Follow-up and simultaneous data collection for real-world data analysis Turn-key solutions for equipment Remote and cloud-based solutions Artificial intelligence in imaging and adaptive planning 	Communication of complex issues
Cost effectiveness	Data	Inadequate comparative data
Public support	Media campaigns: traditional and social media	Clear messaging and keeping on the mainstream agenda

welcoming all constituents and expanding to stakeholders outside the radiation therapy field. It should be a forum for leaders to freely communicate, consolidate, and advocate. Acting as a global hub serving with knowledge and inspiration, it is critical that we link with the local radiation therapy community so they feel empowered and involved and that everyone can do something. The (financial) framework clinicians work within is often defined by non-radiation therapy decision makers, and the opportunity can be taken to get to know and educate these stakeholders. Local political leaders are also an important audience; time spent in forums to be familiar with their agendas is important to merge them with radiation therapy. Engagement with colleagues, patient and professional medical organizations, and industry to start the discussion on how to achieve common objectives is key. The examples from the United Kingdom and Australia are good examples of what is possible when clinicians, patients, and industry come together to engage policymakers.

Opportunities for Radiation Therapy to Take the Lead in a Digital Revolution in Medicine

Radiation therapy is now well placed for leading the way in the digital revolution in medicine. Current rapid technology developments in image-guided precision radiation therapy; cloud-based IT; remote planning, quality assurance, training, and data collection; new radiation energies and particles; and immune-radiation therapy with real potential for extending the role of radiation therapy in the metastatic setting. These developments, and the greater global emphasis on early diagnosis and therefore need for curative radiation therapy, will allow radiation therapy to have a sustainable impact on future cancer care and emphasize the cost effectiveness and long-lasting need for radiation therapy.

For governments, radiation therapy can lead the digital revolution that is possible in medicine. In many parts of the world, the workforce is already highly technically trained; the IT, artificial intelligence, and cloud-based solutions are already bespoke for radiation therapy; and rapid technology assessment is now possible via real-time patient outcome

data compared with technical delivery data. The community is close knit, and if we can be seen to be working together, combining professionals, industry, and healthcare providers and advisors, we can be trusted to make sure radiation therapy delivers. The post-COVID-19 world is alive to digital and technology transformations. Governments are alive to cost effective solutions, and there should be a window of opportunity to get rid of previous bureaucracy and blinkered thinking, which has allowed radiation therapy to underachieve. The future of “building back better” for radiation therapy should entail more focus on evidence-based, patient-focused treatment and strategies to build further resilience in the workforce and the technology—and it should be sustainably reimbursed. If step changes in radiation therapy are made collectively, cancer care can be improved globally. The need for a global vaccination strategy is universally accepted, and we now need to ensure the need for a global revolution in radiation therapy provision is also accepted. This is the time for radiation therapy advocacy.

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