

SUMMER 2020

ASTRO news

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The global pandemic's
impact on
radiation oncology

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From the Frontlines

First-hand accounts and lessons learned as radiation oncology reacts to the global pandemic

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Impact on Residents and Training

Responses from ARRO, ADROP, SCAROP, ACGME and ABR on the impact to residents

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Krishnan Suthanthiran, President & Founder of TeamBest Companies & Best Cure Foundation, Proposes Solutions for the Shortcomings of the Current Global Healthcare Delivery System

PRESS RELEASE (Summary) • May 6, 2020

Currently, Global Healthcare Delivery is 15 Trillion USD annually and expanding at the rate of 10% plus per year with the constant increase in population and costs. This is the single largest global Economy – now and into the foreseeable future. Every country in the world is corrupt and millions are dying that should not! The #1 killer is Cardiac disease, #2 is Cancer and some would say #3 is Negligence/Misadministration/Infection acquired in Hospitals.

The COVID-19 pandemic has exposed many of the shortcomings of the current global healthcare delivery system, but global corruption is a much bigger contagion

and in the end, a much deadlier disease than any disease known to humankind.

Krishnan Suthanthiran's proposed Best Cure Global Healthcare Delivery System aims to create a new corruption-free system, with a Hub & Spoke Model of Express and Mobile Clinics, linked with General and Multi-Specialty Medical Centers, and connected to 3–6 Star Apartment Hotels, thereby limiting the number of beds in the Medical Centers, but add more for Intensive and Medium Care Operations.

To read the full press release, please visit: http://www.teambest.com/news_press.html

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	3–90 MeV	High current proton beams for neutron production and delivery (Patent Pending)
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Best 20u/25p Cyclotrons	20, 25–15 MeV	Proton only, capable of high current up to 1000 Micro Amps, for medical radioisotopes
Best 30u/35p Cyclotrons	30, 35–15 MeV	Proton only, capable of high current up to 1000 Micro Amps, for medical radioisotopes
Best 70p Cyclotron	70–35 MeV	Proton only, capable of high current up to 1000 Micro Amps, for medical radioisotopes
Best 150p Cyclotron	From 70 MeV up to 150 MeV (non-variable)	For all Medical Treatments including Benign and Malignant Tumors for Neurological, Eye, Head/Neck, Pediatric, Lung Cancers, Vascular/Cardiac/Stenosis /Ablation, etc. (Patent Pending)
Best iRCMS 400 MeV Synchrotron	Variable energy up to 400 MeV	Rapid Cycling Medical Synchrotron for Proton-to-Carbon Heavy Ion Therapy

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EDITOR'S *notes*

BY NAJEEB MOHIDEEN, MD, FASTRO
SENIOR EDITOR, ASTROnews

THE PANDEMIC AND BEYOND

*A dreadful plague in London was
In the year sixty-five,
Which swept an hundred thousand souls
Away; yet I alive!*¹

DANIEL DEFOE'S "A JOURNAL OF THE PLAGUE YEAR" was written 60 years after the disease swept London. His account of the bubonic plague and the havoc it wrought may have been a work of fiction, but it still rings true — the poor and underprivileged bearing the brunt, scapegoating, xenophobia, blame games, naysayers ignoring the quarantine, even fake news. So much has changed since 1665, but some things seem worryingly familiar. The COVID-19 crisis is the greatest economic calamity since the Great Depression and will, like previous epidemics, widen the inequality gap.

As the toll from the pandemic mounts worldwide, with the U.S. accounting for the highest numbers to date, the streets are filled with the outpouring of anger at inequality and injustice, heightening the sense of society unmoored and lives altered in ways yet to be defined. If anything, this pandemic is forcing us to imagine our world anew.

For radiation oncology, the coronavirus outbreak has been practice changing — screening patients to decrease exposure risks; categorizing them to avoid or defer treatment or hypofractionation when treatment is indicated; using personal protective equipment; limiting staff exposure; implementing the widespread use of telehealth and virtual tumor boards, etc. One cannot overstate the elevated stress and increased burden of responsibility on staff, administration and physicians who are charged not only with caring for cancer patients with COVID-19, but also the well-being of other patients in the department.

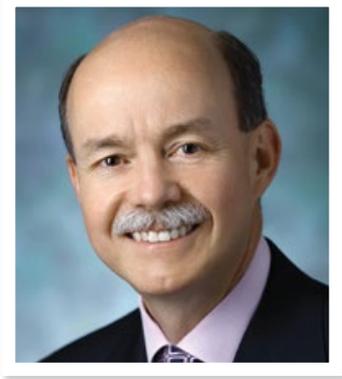
Added to that, patient volumes have been hit by the cancellation of upstream elective procedures that lead to referrals for treatment and this has forced the downsizing of staff. Friends and colleagues have lost jobs, meanwhile there's added work pressure on those who remain. The responsibility of our educators, the training of our residents, certification exams — almost nothing has escaped the impact of the pandemic.

This issue addresses various aspects of the coronavirus outbreak as it relates to our discipline and beyond, including patient care on the frontlines and heroism in the time of crisis. We look at training and certification by our residents, program directors, department chairs and accreditation and board certification bodies and discuss their perspectives and problems. This will hopefully lead to constructive dialogue and resolution of these highly important issues.

The global response to COVID-19 by radiation oncology has been unprecedented and astonishing. Miller and Coleman summarize how professional societies, organizations and individuals across borders came together, harnessing the power of technology and never-before-seen cooperation to rapidly disseminate knowledge to guide us in the optimal care of patients and challenge us to serve the larger community. It would be remiss of me not to mention the leadership provided by ASTRO (see Tom Eichler's article on page 7) as the specialty grappled with major upheavals to patient care, patient and staff safety, clinical guidance and economic challenges. The ASTRO Journals "adapted to meet the challenges of an increasingly rapid, high-stakes publishing environment," as Lisa Braverman writes.

When the crisis abates, we may have occasion to ask whether there are practices that have become more prevalent during this break in routine that we want to adopt, such as expanding telehealth, virtual meetings, hypofractionation, etc. We may also see the unfortunate consequences of delaying treatment and screening tests. Importantly, we are entering a world in which hospitals face crushing debt, unemployment rates are high and there's little idea about the long-term impact on health care. Of the many paths in front of us, some lead in the same direction that health care has been drifting toward — more disparity in care, less emphasis on public health and prevention, lack of health care coverage for millions — all of which are exacerbated by increasing unemployment.

Continued on page 4



COLLABORATION IS OUR STRENGTH

IT HAS BEEN A TIME OF CRISIS, DISTRESS AND COLLABORATION. Racial injustice, the COVID-19 pandemic and the resulting ravaging of the economy predominate. Individually, very challenging. Collectively, overwhelming. Yet, as physicians who are used to doing the hard work of providing complex, multidisciplinary care to patients with cancer, I firmly believe radiation oncologists are well trained to collaborate in order to do our part in helping to provide solutions for these challenging issues.

In the United States and beyond, large numbers of the world's citizens rise to protest the murder of George Floyd at the hands of the police. His killing is but the latest example of a long, systematic and ugly history of racial injustice that is deeply embedded in society. All of us as citizens of the world must face this reality, and we, as physicians charged with caring for the most vulnerable, must ensure that we work hard to erase the structural racism found in our own field. By removing barriers to achieving equity for our Black members, all our members of color will benefit, providing full engagement in leadership positions across our field as well as inside ASTRO. By doing so, not only will we have a more vital and effective profession, we ensure that our decisions and resources are best prioritized where they reduce the health inequity we all seek to eradicate. Many of our members are highly interested in collaborating in the hard and difficult work that

lies ahead, and the ASTRO Board of Directors is committed to doing the same.

Simultaneously, you have all also risen to the challenge of managing patients with COVID-19 and the impact the pandemic is having on our lives and those of our families, friends and colleagues. None of us could have expected to be in this position six months ago, and it is clear that more challenges lie ahead, some predictable and some not. We are still in the early days of this struggle, and the evolving situation will ask us to continue to adapt. This will inevitably lead to more stress among our colleagues, and it is up to all of us as ASTRO members to lead with calmness, confidence and compassion. We have seen broad collaboration by many members of ASTRO in dealing with COVID-19, including a spectacular effort in sharing, collating and disseminating guidelines to best manage our patients during the pandemic.

Finally, we must remember to care for each other. All of these issues are causing added stress to many on our care teams. These issues are calling us to respond at the highest level of our professional oath, and the ASTRO Board and I have the greatest admiration for how all of you are responding. I am more than confident that our members will continue to rise to meet these challenges through collaboration to find solutions, and prove, once again, why ASTRO and our members are leaders in medicine. 



Continued from page 2

There is still much to be wary about. Clearly, we are not out of the woods as far as the pandemic is concerned. The most dangerous time, Defoe wrote 400 years ago, was when people thought it was safe to go out. That was when the plague flared up all over again. With numbers on the uptick in some states, the question is how new infections can be curbed — break the chain as it were — before the health care system is overwhelmed.

During the crisis, almost every radiation oncology department was up and running because, unlike many other specialties, a lot of what we do cannot be delayed or deemed elective. Helping cancer patients in these times of fear and uncertainty has been a truly gratifying experience. Like a lot of you, I have had more

conversations with primary care physicians regarding the well-being of their patients than ever before. Your untiring efforts have raised the profile of our specialty. It has vastly enhanced the trust that such physicians have in your ability to ensure their patients are getting the best care possible.

I am inspired by our health care workers, among them radiation oncologists, physics staff, therapists, nurses and especially our residents, many of whom have volunteered to care for inpatient COVID-19 admissions. You have put yourselves at risk on every shift. And when you go home, you have to make sure your families are not at risk. You are true heroes, and you inspire hope for the future. 🦋

References

1. Defoe, D. *A Journal of the Plague Year*. <http://www.gutenberg.org/ebooks/376>.

**ASTRO announces PEER-TO-PEER MATCH –
connecting radiation oncologists for peer review!**

Located in the *ROhub*, this online tool includes a searchable database. Connect with your peers to enhance safety and quality in your practice.

ROhub

Learn more: www.astro.org/peertopeer

SOCIETY NEWS

Advocacy's Adaptation: Same destination, new roadmap

BY COLIN WHITNEY, GOVERNMENT RELATIONS SPECIALIST

MARCH IN THE NATION'S CAPITAL USUALLY

MEANS WARMER WEATHER, cherry blossoms and ASTRO's Advocacy team gearing up for the annual Advocacy Day program. This year, however, the warmer weather arrived, and the cherry blossoms came and went, but COVID-19 canceled Advocacy Day, and the team quickly found ourselves responding to an unprecedented public health emergency. Despite this dramatic change of plans, ASTRO adapted to continue addressing the priorities of the radiation oncology community as it balanced the need to continue treating cancer patients with managing COVID-19 exposure risk and their financial stability.

In these last four months, ASTRO's advocacy evolved to fight for the emerging needs of our members. Radiation oncologists nationwide reported struggles in providing continuity of care and maintaining financial stability as practices experienced disruptions in revenue cycles due to COVID-19. The preliminary results of ASTRO's COVID-19 impact survey showed 92% of respondents reporting revenue declines of greater than 10%, as well as 87% of respondents reporting a decline in patient volumes. This highlighted the need for both financial and regulatory relief for the radiation oncology community, and ASTRO Advocacy sprang into action.

While educating policymakers on new COVID-19 radiation treatment guidelines, ASTRO also advocated for increased flexibilities and funding so radiation oncology practices could continue to provide critical care despite the pandemic's restrictions. From urging a widespread expansion of telehealth coverage and payment, to advocating for direct financial relief for physicians, their practices and their hospitals, ASTRO continued to listen to your experiences and make your voices heard.

A highlight of ASTRO's advocacy efforts involved writing letters urging the Centers for Medicare and Medicaid Services (CMS), private payers and radiation oncology benefit managers to broadly expand telehealth coverage and relax supervision requirements for the

duration of the public health emergency. The ensuing telehealth coverage policy waivers were welcome changes that also exposed the potential long-term necessity of these revisions to ensure consistent, high-quality care for patients.

As ASTRO Health Policy Committee Co-chair Catheryn Yashar, MD, FASTRO, noted, "For the elderly, the sick, the inpatient at distance, those with a lack of transportation, it [telehealth] provides another avenue of providing necessary care." ASTRO Government Relations Council Chair Ronald Ennis, MD, echoed that belief, saying the telehealth and supervision changes "have allowed us to continue to care for patients who otherwise would not have been seen at all. The flexibility has allowed us to optimize care and minimize risk."

ASTRO also lobbied Congress for financial relief for radiation oncologists through the various programs funded through the Coronavirus Aid, Relief, and Economic Security Act (CARES Act, H.R. 748) and subsequent laws. ASTRO fought for increases to the Provider Relief Fund because, as ASTRO Health Policy Council Vice-chair Constantine Mantz, MD, explained, that fund is "the most helpful program... this direct aid not only addressed short-term concerns of reduced patient volumes but also long-term concerns of maintaining current workforce levels in our clinics and planning for equipment and software upgrades."

With the long-term uncertainty due to COVID-19 and the ongoing struggle facing radiation oncology and the health care system, ASTRO's advocacy efforts will continue to adapt to the needs of our members, keeping our goal and mission in mind. No matter what lies ahead, ASTRO Advocacy will keep working to best advocate for the policies radiation oncology needs to provide access to high-quality care for cancer patients.

For a complete compilation of ASTRO's ongoing advocacy efforts, including all letters, webcasts and policy updates, check out our [COVID-19 Advocacy page](#). 

Immersive, interactive and innovative: Your 2020 ASTRO Annual Meeting

BY NINA TAYLOR, ASTRO VICE-PRESIDENT OF LEARNING AND EDUCATION

WE ALL HAVE BEEN INTRODUCED RECENTLY

to new phrases with significant life impact due to COVID-19. One of those new phrases used almost daily is “social distancing” and the other is “going virtual.” To date, the novel coronavirus has been responsible for the cancellation of 195 medical specialty society and health care association in-person meetings, with fewer than 50 of these organizations providing alternatives to their in-person annual meetings and symposia. For those in search of CE, networking and interview options this year, the hot topic has become finding quality annual meetings hosted online.

On April 30, the ASTRO Board of Directors voted to cancel the in-person ASTRO Annual Meeting in Miami Beach, Florida. The decision, met with overwhelmingly positive feedback, was made based on considerations of the global impacts of COVID-19, domestic and institutional travel restrictions, Miami’s preparedness to host large gatherings, protocols around social distancing and keeping attendees, staff and the patient community safe.

ASTRO will now pivot the in-person, live meeting to an immersive, interactive and innovative virtual experience. You can expect so much more from the unique and customized virtual meeting platform ASTRO is using to conduct the

2020 Annual Meeting. There will be access to the full Annual Meeting program offerings, live SA-CME opportunities, and engaging educational and scientific

sessions. For our poster hall, poster presenters will have the opportunity to record narration on each section of their posters. There will also be popular sessions like Clinical Trials and eContouring, along with new offerings like Storytelling and Master Classes for a deeper dive into topics, including medical marijuana and leadership. You can expect a Presidential Symposium curated by ASTRO President Thomas Eichler, MD, FASTRO, that will bring focus to global issues with expert analysis, fireside chats and “TED-style” presentations. We will also have late-breaking information on COVID-19 stories from the frontlines and recommendations from our experts.

The meeting will also focus on networking, with breakout rooms, job interview opportunities, a networking lounge and one-to-one text and video chatting capabilities. Attendees of the ASTRO Annual Meeting will have the opportunity to “walk” through the virtual Exhibit Hall and visit booths to learn more and connect with each exhibiting company.

The meeting kicks off on October 25 and will be available for 30 days to ensure each attendee has access to the presentations, slides and the Exhibit Hall. Two exciting features: there will be chat translation in six different languages and leaderboards for gaming. For learners unable to join us within the 30 days, there will be an onDemand product developed with CME credits offered.

The ASTRO Annual Meeting will be uniquely redesigned to ensure attendees around the globe continue to access quality education in a challenging time, including the ability to reconnect with colleagues and catch up on the latest in technology, innovation and patient care.

We are fully embracing this unique opportunity to bring each of you a meeting that is fresh and new. You can follow the journey to Annual Meeting on Twitter with the hashtag #ASTRO20 and be sure to check back on ASTRO.org for the latest in Annual Meeting planning and offerings. Registration opens July 9, and we can’t wait to see you online! 🚀



Responding to the Needs of our Members

BY THOMAS EICHLER MD, FASTRO, ASTRO PRESIDENT

ON MARCH 11, THERE WERE MORE THAN 1,100 KNOWN COVID-19 INFECTIONS

in the U.S., with 37 deaths, nearly all in Washington state. That night, the NBA's Utah Jazz were in Oklahoma City to take on the OKC Thunder when pre-game warm-ups were interrupted by the sudden news that the Jazz's all-star center, Rudy Gobert, had tested positive for the coronavirus. The game was promptly canceled and the NBA season suspended indefinitely. The next day, the NCAA announced the cancellation of the men's and women's basketball tournaments, a sprawling annual ritual in the U.S. The NHL suspended their operations, schools across the country began to postpone classes and toilet paper became a scarcity. Welcome to the new normal.

On March 13, ASTRO leadership held their monthly call, at which time it was decided to create some form of practical guidance to help the membership deal with the challenges presented by COVID-19 and our unique patient population. Many academic centers were actively mulling their own guidelines, and questions were popping up on *ROhub* and a number of other websites seeking direction for clinicians and their staff, especially in the freestanding setting. A small work group was established that same day to create a broad set of recommendations in the form of FAQs and discreet clinical suggestions, in addition to providing links to relevant websites and literature. Writing, editing and re-writing throughout the weekend, the product was completed Monday afternoon and posted on the ASTRO website at 5:00 p.m. on Tuesday, March 17. A podcast version was recorded the next day. By Friday, the site had accumulated over 14,000 hits. That same week, a webinar with radiation oncologists at the University of Washington, an early coronavirus hotbed, was posted on *ROhub* with equally widespread viewing.

Given the rapidity with which the landscape was



changing, especially in those early days, additions were made to the FAQ list and updates were made to previously posted materials. At about the same time, our colleagues at ESTRO invited us to participate in a unique study aimed at providing recommendations for treating lung cancer during the pandemic with a two-week time frame for collecting and submitting data to their Green Journal for publication. On a parallel track, a similar study looking at head and neck cancer management was coordinated by

ASTRO, with ESTRO participation, for the Red Journal's consideration. Both studies were completed within the abbreviated time interval and fast-tracked for publication and posting on various social media platforms.

In mid-April, ASTRO fielded a survey to assess the effects of the pandemic on over 500 individual practices across the country, with a 42% response rate from those queried. The results were startling. The results demonstrated that 87% of practices experienced a decline in patient volume, with an average drop of 31%. More than 90% reported revenue declines of over 10%, with 63% citing falloffs of over 20%. Nearly 50% reported reduced staffing due to volume declines and 69% experienced shortages of PPE. The survey design called for re-questioning every two weeks until May 31. Interestingly, our colleagues in Latin American, Europe and Canada have requested access to the survey tool to canvass their respective memberships.

As you will read in other articles in this issue of *ASTROnews*, considerable time and effort was expended on advocacy and coding guidance, in addition to the aforementioned clinical guidance. These efforts will continue into the foreseeable future as the specialty adapts to an evolving set of challenges, working to respond to the needs of our members and the patients we serve. Thank you for all that you do. 

ASTRO Journals' COVID-19 Response: Thoughtful, adaptable and fast

BY LISA BRAVERMAN, MANAGING EDITOR

COVID-19 HAS USHERED IN A NEW ERA FOR SCIENTIFIC PUBLISHING. The media and public are incredibly hungry for information about the virus and its associated disease, and they are turning to research published in academic journals like never before.

The Red Journal, *Practical Radiation Oncology* and *Advances in Radiation Oncology* have adapted to meet the challenges of an increasingly rapid, high-stakes publishing environment. Authors and reviewers involved with ASTRO journals may have started noticing these changes already. And if you have not yet, you almost certainly will!

Rapid review of urgent research. Papers about COVID-19 are fast-tracked for review, meaning reviewers are asked for near-immediate turnarounds, and editors are particularly conscientious about delivering decisions as quickly as possible.

Immediate, free dissemination of all COVID-19 content. As soon as a COVID-related article is accepted to an ASTRO journal, the paper is added

to ASTRO's [COVID-19 resource center](#). Once the version of record is made available, journals staff update the link to that paper. All COVID content is free to read as a public service.

Conscientious flexibility. These times are truly unique, and the journals' editorial teams recognize that additional flexibility is often needed. In addition to authoring and reviewing research, we know practitioners often face unpredictable schedules and increased hours. For research that is no less important though slightly less urgent than COVID-19 content, the editorial teams have relaxed deadlines and encouraged communication about necessary extensions. We appreciate authors' patience during this time.

All three ASTRO journal editorial teams welcome submissions. We are thrilled to be able to highlight crucial research through ASTRO's website, on social media and beyond. As always, questions about scope, submission, review and publication are encouraged. Please contact the [editorial office](#) at any time. 

ASTRO has learned that the following members have passed away. Our thoughts go out to their family and friends.

Jean B. Owen, PhD, West Chester, Pennsylvania

Richard E. Peschel, MD, PhD, New Haven, Connecticut

The Radiation Oncology Institute (ROI) graciously accepts gifts in memory of or in tribute to individuals. For more information, visit www.roinstitute.org.

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LESSONS LEARNED IN ONCOLOGIC CARE FROM THE FRONTLINES OF A PANDEMIC: THE NORTHWELL PERSPECTIVE

BY LOUIS POTTERS, MD, FASTRO, SEWIT TECKIE, MD, AND DANIEL KOFFLER, MD

The Lead-up to the Crisis

On January 22, 2020, at 7:41 p.m., the first of what would turn out to be many emails from Northwell Health leadership arrived introducing the novel coronavirus to the medical school chairs. At that point, only 555 cases globally had been reported. An Emergency Command Center was quickly established by February 6, putting into action a plan to address what was not yet considered a pandemic. It was impossible to predict what would soon follow.

By the end of February, the state of New York was bracing for what has proven to be the most destructive outbreak of COVID-19 documented across the globe.^{1,2} As the tsunami rolled in, health care was transformed in ways none of us ever imagined.

Response of Northwell Health to COVID-19

Northwell Health, the largest health system in New York state, became the epicenter of the epicenter with a peak census on April 8 of 3,842 COVID-19-positive inpatients, with 833 intubated. The COVID-19 storm precipitated the cancellation of elective surgeries, closure of ambulatory clinics and the conversion of auditoriums and hospital lobbies into COVID-19 wards. Endoscopy suites, PACUs, step-down units and more were converted into ICU space. As of April 27, the system was “down” to 2,016 COVID-19 inpatients, with 612 on ventilators.

Radiation Medicine Approach to COVID-19

Against this backdrop, the department has endeavored to navigate the difficult trade-offs faced uniquely by

cancer patients. It is important to recognize that, while we proactively discussed and prepared for changes to the standard of care, ultimately we were able to maintain our usual radiation treatment regimens. That's not to say that this process was easy to navigate or stress-free.

A set of guiding principles was established early on. These principles have proven to be highly dependable:

- 1) Protect the health of staff.
- 2) Protect the health of our patients.
- 3) Ensure the continuation of care for active patients receiving radiation therapy.
- 4) Maintain access to patients requiring radiation therapy services.
- 5) Provide an appropriate standard of care to infected patients only if the first four principles could be met.

Lessons Learned for Maintaining Operations During a Crisis

As the crisis unfolded, it was not clear that we would maintain the staff to keep treating. A hierarchy of clinical priorities was created (Table 1) to reduce the treatment volume (Figure 1). During this time, we saw few infections among our staff, who remained engaged and present, which resulted in a controlled resumption of patient treatments ahead of schedule.

We made a purposeful decision not to relax our long-established safety rules. These rules serve as the foundation of providing safe care, creating a routine set of expectations that has grounded the staff during the anxiety of the health crisis.

Work-from-home directives for secretaries, physicists, dosimetrists and residents decompressed the office. Nevertheless, we had a number of clinical and administrative staff test positive, with all having recovered. We also successfully treated several SARS-CoV-2 positive patients using appropriate precautions.

There is no playbook for this unprecedented crisis, and managing through this time has been a team effort. It is critical to be rational and purposeful in decision making. We also learned the value of routine communication.

Table 1. Northwell's prioritization of radiation treatment start date based on treatment indication

Priority	Description	Example cases
Priority I	Cases where a delay of treatment may result in a loss of life, progression of disease or a permanent loss of neurological or other function.	<ol style="list-style-type: none"> 1. Oncologic Emergencies including Brain Metastases 2. Advanced Head and Neck 3. Advanced Gastrointestinal 4. Advanced Gynecologic 5. Advanced Lung
	These patients are to be assessed and managed accordingly.	
Priority II	Cases that may be delayed for up to 4 weeks, and delay in treatment is unlikely to result in a loss of life or negatively impact a patient's prognosis.	<ol style="list-style-type: none"> 1. Early Stage Head and Neck 2. Early Stage Lung 3. Lymphoma 4. Brain SRS for Benign Diseases
	If a patient's treatment is deferred, waiting lists should be created for priority II patients requiring treatment. These waiting lists will be reviewed at least weekly depending on the overall situation and the availability of treatment slots.	
Priority III	Cases that may be delayed for 30 days or more, where such delay in radiation treatment is unlikely to result in a loss of life or negatively impact a patient's prognosis.	<ol style="list-style-type: none"> 1. Early Stage Prostate 2. Early Stage Hormone Receptor Positive Breast 3. Prostate on Androgen Deprivation
	If a patient's treatment is deferred, waiting lists should be created for priority III patients requiring treatment. These waiting lists will be reviewed for pending treatment accordingly and the patients contacted with follow up as needed.	

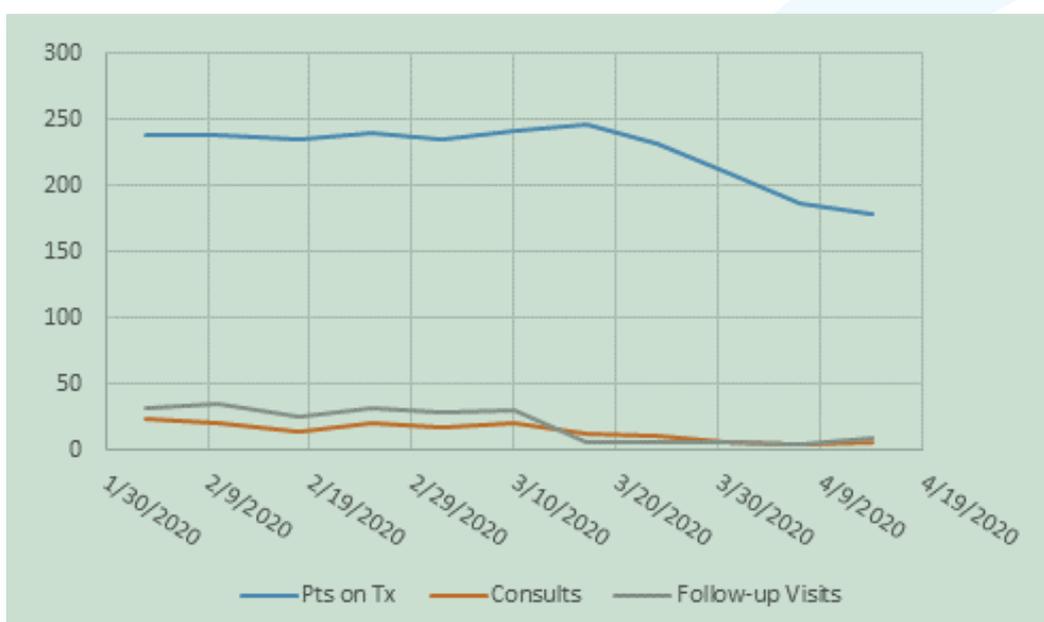


Figure 1. Average daily patient load for Northwell Health Radiation Medicine during COVID-19

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The Road Forward as the Pandemic Continues

Much has been written that treatments during the crisis will require nontraditional efforts due to resource limitations. While we have not observed such an impact in our department, these discussions are helpful and may encourage the use of evidence-based, yet unpopular, treatment approaches, such as shorter palliative regimens.⁴

With New York transitioning beyond the crisis phase, we entered into a “post-crisis” period that we believe will last for many months (or years) to come.⁵ We have continued to see new patient consults and offer routine care, in the clinic or virtually. We have adopted clinical practices designed to keep patients out of emergency rooms and hospitals³, and we have also become more sensitive to the risk-benefit ratio of certain treatments.

Modeling of this pandemic shows that periods of resurgence up to the year 2022 are likely.⁶ If so, with operating rooms closed and systemic therapies limited,

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we will need to be smart and coordinated about how we manage cancer patients. It appears that radiation oncology services may be the least disrupted “leg” of the cancer treatment triad, and we may be able to offer more definitive radiotherapy for cancer patients. Already we have seen a change in the types of patients who present for radiation — some who cannot be offered surgery or chemotherapy due to COVID-19, and others who have had substandard work-ups (no biopsy, insufficient imaging). For many of these patients, radiotherapy has always played an important role, but perhaps not the primary one.

It is also likely that we will face an upswing of advanced cancers resulting from the loss of screening and surgery during this crisis, and we need to be proactive in preparing for that eventuality. Our ability to remain adaptable and flexible in our protocols will be critical to our success in meeting the challenges of COVID-19’s many aftershocks. 



Rusk Auditorium is converted into a COVID-19 ward during the public health emergency. Photo courtesy of Northwell Health.

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A NATIONAL NETWORK'S EXPERIENCE WITH COVID-19

BY VIVEK S. KAVADI, MD, FASRO

BEFORE I START THIS ARTICLE ON MY EXPERIENCE WITH COVID-19, I would like to send the ASTRO community my best wishes and hope that all of you and your families are well and safe.

As an introduction, I want to take you back to mid-March and describe my world at that time. I was wearing three hats. First, as a physician and leader of two of our cancer centers in Houston. In that capacity, the questions related to the impact of COVID-19 were do we stay open, and if so, how and in which capacity? Were we prepared to screen patients and staff to keep both safe? Would we have enough staff to do our job?

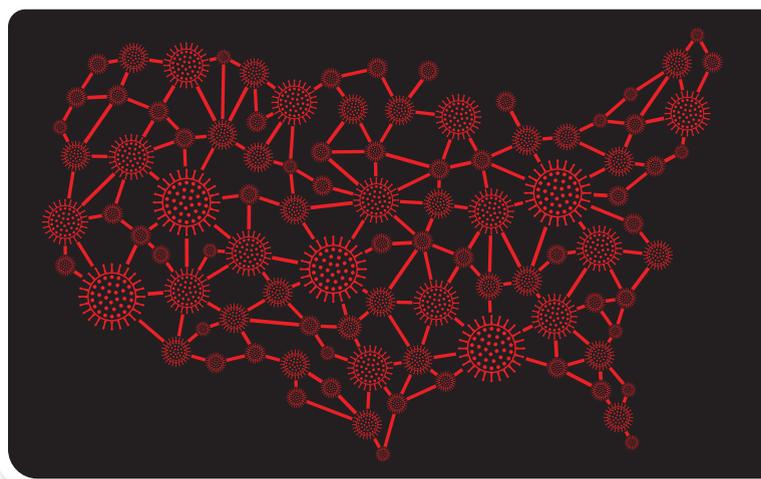
The second hat was as the regional director for Texas Oncology in Houston. The scope was beyond just radiation oncology and broadened to include a multidisciplinary, multisite oncology practice. Cancer care is certainly an essential service, but hospitals had directed many cancer surgeries to be deferred. The questions circulating included what was that going to do to our surgical practices? Which staff and doctors needed to be quarantined due to potential exposure or having tested positive for the coronavirus? Which sites should we temporarily close or consolidate? Which types of patient visits should be deferred, and what could we do with telemedicine? What were we going to do with staff? Some could work from home, but many could not. How were we going to maintain a skilled and valued workforce when revenues were getting slashed? We were having weekly conference calls with our Houston area site leaders to discuss.

The third hat was as chair of the radiation division at US Oncology with nearly 240 doctors practicing at about 150 sites spread across the country in multiple independent practices. Our role was to advise them on how to keep their departments open during the pandemic. Even more questions arose. What special cleaning procedures were required? Could we treat

COVID-19 positive patients and how? Which cancer patients could have their treatments pushed back? What modifications in treatment regimen could be considered? How were billing/coding, reimbursement and supervision changing during the crisis? What were new human resources considerations? What was happening to our patient volumes? What would be the full effect of the decrease in patients? There was a great deal of fear and uncertainty. We hosted several webinars over a two-month period with our national radiation oncology team to keep them abreast of various developments.

Living in Houston, we unfortunately had prior experience with disaster management during Hurricane Harvey two and a half years earlier. Accounting of staff, telephone trees, patient communication and site management were issues we had dealt with once before. However, COVID-19 was different in terms of scale and duration of impact. There was also a significant variation in its effects on different practices in our network. We tracked volumes across our sites, and the data was changing dramatically on a weekly basis during the first six weeks. The impact ranged from 20 to 50% decrease in consults. Treatment volumes have been impacted much less, ranging from no change to a 30% decrease. However, consults are a leading indicator and treatments are a trailing indicator. Will the sites that have not had big impact in treatments thus far see losses in volume and revenue in the future months?

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For me personally, the volume changes were striking at the two locations where I work. One has had minimal impact in consults and no real change in treatments. The second, in the same city, has lost more than 50% of consults and treatments.

Lessons Learned for Now and the Future

What were some of the lessons to take away during this time? First, I have been struck by the teamwork, the support networks that blossomed and the empathy that has been shown. Uniformly, staff were supported with no furloughs or layoffs.

Telemedicine came of age during this pandemic, and we as radiation oncologists need to determine how best to use it. Certainly, routine surveillance follow-up visits are well suited for telemedicine; however, consults are trickier since physical examination is inherent to good radiation oncology practice. If you decide to treat the patient, which most of the time we do, the patient needs to come into the center for simulation and treatment anyway. Weekly management visits were the most troubling for me personally. The patients are already in the centers and, as the radiation oncologist, I am prescribing the treatment that my staff has to execute. They are in close proximity on a daily basis

as they physically manipulate the patients to deliver treatment. How can I as the leader of the team then say that I will see those same patients via telemedicine instead? Certainly, individual circumstances differ, and telemedicine has been a wonderful solution for a variety of doctors, but I personally did not go down that path. In the future, ASTRO will need to advise on which aspects of our specialty are appropriate for such approaches post-COVID-19.

Lastly, we also learned that most of us were unprepared with lack of adequate PPE. And, in the future, we will also have to do a better job with staff contact tracing regarding travel.

Overall, during this trying time, I have been impressed with the resources and support that we were able to mobilize, and the focus on our work community has been exemplary. I suspect for all of us the extra time at home and with family has been a welcome silver lining during this crisis as well. 🇺🇸

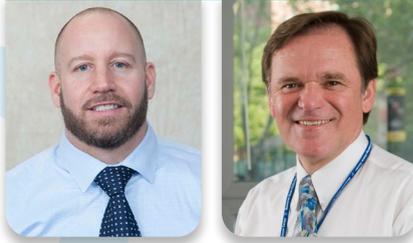
Vivek S. Kavadi, MD, FASTRO, is the chief radiation oncology officer for the US Oncology Network. He is co-chair of the ASTRO Payment Reform Task Force and chair of the Payer Relation Subcommittee of ASTRO's Health Policy Committee.



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HEALTH IMPACT OF COVID-19 ON RADIOTHERAPY STAFF: OUR EXPERIENCE AT MEMORIAL SLOAN KETTERING

BY ANDREW J. TAMAS, RTT, AND SIMON N. POWELL MD, PHD

THE COVID-19 CRISIS BEGAN IN NEW YORK CITY AT THE BEGINNING OF MARCH 2020.

We immediately recognized that the impact on the department could be rapid and impactful, so we developed a plan to address staff availability due to illness, patient prioritization for treatment and the management of patients who had exposure to COVID-19 or experienced symptoms of the disease.

The backbone of the decision making within our department was the “daily huddle,” where all working groups of the radiation oncology department were represented to discuss the immediate issues and future strategies during the COVID-19 crisis. These huddles, frequently adopted in health incident management, provided real-time updates on staff outages, treatment numbers, clinical decision making and other ongoing challenges. We used these regular meetings to come to a consensus on management and to align our processes with those being used throughout the rest of the institution. We then communicated these consensus policies through email communication to staff and through regular “town hall” events, wherein staff could ask specific questions relevant to our operations or future projections. Through this mechanism of implementation (daily huddle), communication (emails describing fundamental changes in policy) and dialogue (town halls), we were able to involve all stakeholders, address concerns and keep the department informed on an ongoing basis.

Staff Preparation and Assignments

Radiation therapists (RTTs) were included as essential workers for their role in on-site patient care. We surmised that radiation therapists were the group that

would be rate-limiting for our capacity to treat patients, since we did not have significant reserve capacity and their work could not be taken over by an alternative group. If a significant number of radiation therapists became affected by COVID-19 and were required to isolate away from the hospital, we would have to limit operations for radiation treatment.

On March 13, nine days before the mandated New York City shutdown, a plan was devised to split the RTTs into two teams. One team would consist of therapists who would work exclusively with patients, in pairs on a rotating basis. The other team would consist of therapists who would support the work of radiation therapy remotely. For example, they would remain in contact with their assigned machine and be responsible for scheduling, chart preparation, chart checks and all ancillary coordination in the treatment units’ patient care. This strategy would enable us to limit the exposure of RTTs from patients and staff and would allow contact tracing of all COVID-19 exposures.

As the treatment volume was still relatively high in the middle of March, we had about 30% of the RTTs working off-site. We grouped the on-site therapists into two teams: A and B. Each team would split the day in six- to seven-hour shifts. Initially, when volume was high, we included an additional therapist to cover lunches and breaks, as needed. As patient volume decreased, we proceeded to increase the percentage of therapists working off-site to 50%. We continued a week-on and week-off arrangement. When a staff member was exposed to COVID-19, we immediately rotated the team off the unit and had that team replaced with members of the remote team within two hours. This model allowed us to contact trace, protect further exposure and address the mental stress of being exposed to the virus.

Managing Clinic Visits and Treatments

While establishing a staffing plan for the RTT team, we implemented a tiering system for patients and created MD teams to address the needs of our patients and overall departmental needs. The following tier system complements the hospital’s emergency tiering system that had already been activated.

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We established five tiers:

Tier 1: Clinics continue with decreased follow-ups, standard new patient visits and treatment

Tier 2: Standard new patient visits, on treatment patients

Tier 3: Reduced new patient visits, on treatment patients

Tier 4: On treatment patients only

Tier 5: Closure of sites

On March 18, we progressed to Tier 3. Non-urgent scheduled visits were deferred if possible. Our volume initially spiked as we moved patients through our current process. After two weeks, we noticed a steady decline in patients on treatment, and we adjusted staffing models accordingly to limit staff on-site. MDs increased telehealth visits to ensure all patient care was met without interruption. MD presence and availability, although limited on-site, was continued and our standard workflows were followed without incident.

Managing COVID-positive Patients

The daily huddles afforded us the opportunity to discuss individual cases and the need to treat any COVID-positive cases. We identified the need to increase

patient monitoring and departmental communication, which led us to create a “COVID-SWAT” team. This group worked tirelessly to ensure our staffs’ and patients’ safety and was credited with:

- Creating a tracking system to identify patients’ pending test results.
- Being a resource for departmental and RTT questions and concerns.
- Advising on the results and defining the date for returning confirmed COVID-positive patients.
- Addressing the need for and type of PPE in treating COVID-positive patients.
- Working closely with hospital infection control.

Through implementation of our COVID-SWAT team, we reduced potential exposures to staff and patients and tracked each patient’s management plan efficiently and effectively. These workflows proved to be effective through our contact tracing, testing availability in-house and executing the appropriate infection control guidelines. We had approximately 10 RTT staff members test positive, but from the contact tracing we did, all of them appeared to have been contracted through community exposures.

Treatment of COVID-positive Patients

Our first COVID-positive returning patient was treated on April 7 at one of our regional sites. We followed our established institutional guidelines. MDs worked with medical physics to adjust the treatment plan accordingly to compensate for any break in treatment. The criteria for return were as follows: 10 days post-symptom onset and at least three days asymptomatic. Our therapists maintained standardized COVID-positive, which would be airborne-contact-precautions, for 21 days post onset of symptoms. The use of PPE was monitored by our COVID-SWAT team and communicated to staff via email and schedule alerts. An active COVID-positive patient who justified the need for immediate treatment was presented to our daily huddle. On April 13, we successfully treated our first active COVID-positive case, without incident or nosocomial infection. Additional measures included managing the patient’s entry into the hospital, designating the patient as the final treatment of the day, using a separate service elevator and cleaning the treatment room thoroughly following treatment. Since the initial case, we have treated three additional cases using the same approach. The key to the successful workflow was the use of dry runs and effective communication to all groups.

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THE GLOBAL RESPONSE TO COVID-19 IN RADIATION ONCOLOGY

BY ROBERT C. MILLER, MD, MBA, FASTRO,
AND C. NORMAN COLEMAN, MD, FASTRO

THE SPREAD OF SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2 (SARS-COV-2) from continent to continent has highlighted the need for a coordinated global response. Although the last 50 years have seen the globalization of agriculture, manufacturing, energy production and trade, aspects of the service economy that require face-to-face interaction, such as health care, have remained largely nationally focused.¹ In contrast, medical research and associated scholarly publishing were quick to globalize in the mid-20th century and, as a result, there are extensive networks of relationships between doctors across the Americas, Europe and Asia.²

In February 2020, radiation oncologists began discussing the implications of the spread of the SARS-CoV-2 virus and its impact on patients, the workforce and clinic operations. Doctors in North America reached out to colleagues in China and Italy for advice on how to prepare for the pandemic's impact on clinical operations. Beginning the first week of March, *Advances in Radiation Oncology* solicited manuscripts from radiation oncologists in Wuhan, Shanghai and northern Italy, then, shortly thereafter, from Tehran, Paris, Seattle and New York City as these cities saw climbing rates of

infections.³ In parallel, social media platforms such as Twitter and WeChat allowed for rapid dissemination of ideas and opinions, with a group of scholars from Europe and North America publishing a summary of best practices related to COVID-19 collected through social media in early March.⁴ ASTRO quickly provided a COVID-19 webpage to share trusted content. Global interest in reducing treatment times led to a series of joint ASTRO-ESTRO position papers focused on increasing adoption of hypo-fractionated treatment regimens. Focus shifted to detecting COVID-19 lung abnormalities in radiation oncology clinics and the potential impact of COVID-19 on patient outcomes.

The COVID-19 pandemic has emphasized the importance of rapid dissemination of knowledge globally, irrespective of borders. There was a relatively small period of time for radiation oncologists to prepare between the beginning of community-based transmission of SARS-CoV-2 in Italy and its spread to North America. The traditional decision cycle in academic publishing exceeded that window of opportunity. Editors can focus on expediting a small volume of manuscripts, but the crisis highlighted the need for an organized system to share validated and reputable information in times of crisis. Social media can provide a platform but is lacking a mechanism for validation of content. Medical professional societies such as ASTRO can provide the critical expertise and organization required to streamline knowledge transfer globally. The crisis also highlighted the importance of personal relationships between radiation oncologists globally. Personal ties between physician scientists around the world should be broadened.

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Meeting the requirements for patient care so that cancer evaluation and treatment can continue safely is the primary role of radiation oncologists. But how might we have a role beyond that to serve our community? All disasters are primarily public health and medical incidents. Medical expertise is a necessary component of preparedness and planning, which is a responsibility of the federal government and SLTT (state, local, tribal and territorial) governments. There are few very large scale incidents in which a Crisis Standards of Care (CSC)⁵ and a scarce resources situation ensues so that people may have to be triaged to less than conventional care (usual, customary), in which the sequence is conventional to contingency (swapping meds and technology but providing functionally equivalent care) to crisis, where some key aspect of care is not available (e.g, ventilator, sufficient monitoring equipment, a critical antibiotic). Radiation oncologists can engage in community efforts required to appropriately predetermine CSC because, while we would likely never be actually involved in a large scale nuclear/radiological incident, it is part of our training. As seen in COVID-19, effective operational response requires subject matter expertise.⁶

Aspects of our routine practice might be applicable. We are knowledgeable in organ-specific normal tissue injury, so that physiology of organ dysfunction is relevant to our practice; and the concepts of acute multisystem disease is relevant to whole body or extensive partial body radiation. A number of centers are utilizing or considering whole lung radiation to

reduce the COVID-19 induced radiation, which would require rigorous assessment of risk, benefit and mechanisms. Being hospital- and community-based, and often providing the complex care in remote settings, our knowledge of community health, cultural sensitivity, health disparities and cancer prognosis may be essential. Last but not least is a lesson already observed from COVID-19 as to how the stress on the health care system has impacted the non-COVID care. As recognized in disaster planning, the loss of routine medical care may be the major consequence on the population compared to the disaster itself. 

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Conclusions

Thorough planning and communication allowed us to navigate this crisis with very limited impact to our staff and patients. We navigated this uncertain situation by maintaining a cautious, yet flexible team effort. We planned and anticipated our needs before they actually happened. Through consistent communication from our departmental leadership, we managed anxiety and uncertainty and, as a group, we are emerging stronger as an RTT team. 

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The business of radiation oncology after COVID-19: The future is **not** what it used to be

BY AMAR REWARI, MD, MBA,
AND CONSTANTINE MANTZ, MD

THE CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY ACT,

commonly known as the CARES Act, was passed at the end of March to address the economic crisis at large related to COVID-19 and specifically included a \$100 billion stimulus package for the health care industry. With further aid uncertain, physicians and facilities should be undertaking a review of the economic variables pertinent to their medical practices, stress testing their financials to assess their organization's capacity to deal with the current crisis and addressing cash flow and cost structure needs to meet the challenge of the current crisis and prepare for the next disruptive event.

Business Risk Factors for Radiation Oncology

Fundamentally, the business of radiation oncology is based on treatment delivery and, therefore, is uniquely susceptible to downstream effects on patient volume and revenue if disruptions occur in screening, diagnosis and referral patterns. During the peak of the COVID-19 crisis, the American College of Radiology (ACR) endorsed guidance from the CDC that limited non-urgent patient visits and resulted in a decline in screening services, such as mammography and lung cancer screening. Anecdotal accounts abound of facilities having to cancel or delay many elective procedures, including prostate biopsies, in an effort to preserve needed resources. To mitigate viral exposure risk for staff and patients, ASTRO, as well as many institutions, established guidelines for increased use of hypofractionation for selected conditions and for triage of consultations according to clinical urgency. All these actions will have a definite negative effect on our overall treatment volumes and revenues in the near-term,

particularly in delays of prostate, breast and lung cancer patients that practices rely on for financial stability.

Further unknown is the shape of the downturn curve and the timeline to return to normal, given the uncertainties around pharmaceutical interventions, testing and the effect upon the recovery by an interceding event, (e.g., another COVID-19 spike later in the year).

Rapidly increasing unemployment levels may be expected to produce step-change growth in the number of uninsured and Medicaid patients as the work-age population transitions out of commercial insurance and COBRA coverage. This may be further exacerbated by pressures on state budgets to curtail Medicaid reimbursement and private payors adjusting their coverage and risk profile, given net income surpluses in the commercial market from decreased claims paid during the crisis. As a result, revenues may lag even if overall patient volumes recover.

Lessons from the Past

A time of crisis can be an opportunity for organizations to make necessary operational and strategic changes to better withstand future volatilities. Identifying effective moves others have made in relation to previous crises may provide general guidance. A McKinsey analysis of the 2008 financial crisis identified small groups of publicly traded companies in each major sector of the economy whose returns to shareholders significantly outperformed their peers during the subsequent recovery period. These more resilient companies shared two key characteristics: stronger balance sheets (i.e., lower debt) prior to the crisis and a greater ability to reduce operating costs during the crisis as compared to others in their sector. These qualities of resilience may

still be insufficient for health care entities during the present crisis, which may produce economic damage in excess of the 2008 financial meltdown. In addition to tweaking our business models in radiation oncology, we may, more importantly, need to reimagine large parts of our current practice models.

Short-term Impact Management

Short-term strategies during disruptive periods focus almost entirely on optimizing practice and facility cash flows. To manage cash flowing out, physicians and health care systems may pause non-essential spending such as marketing and special projects, impose a hiring freeze, exercise rostering and furloughs for hourly staff and temporarily reduce compensation for salaried staff. To manage cash flowing in, physicians and health care systems may address inefficiencies in their revenue cycle processes and help secure new credit lines for practices. Many practices likely took advantage of provisions under the CARES Act to shore up their cash balances through provider relief from CMS proportional to their historic Medicare claims and loan assistance by the Small Business Administration.

Long-term Impact Management

Whereas short-term strategies focus on improvements in cash flow, long-term strategies fixate upon cost structure. Briefly, cost structure refers to the set of fixed and variable costs related to the output of a business. In the context of radiation oncology, both fixed and variable costs are high, but there may be opportunity to definitively address some of our variable costs if the current interim relaxation of Medicare telemedicine regulation is extended beyond the public health emergency period. If Medicare continues to support reimbursement for telemedicine services, then radiation oncology practices may be able to reduce staffing costs related to in-person visits while sustaining follow-up with patients and directing their further care. As clinic work becomes increasingly facilitated through electronic communication tools, practices may begin to examine their workforces from the perspective of on-site-critical versus on-site-flexible functions and identify new remote work opportunities for staff. This will provide its own set of challenges to ensure safety and patient satisfaction and prevent fraud and abuse.

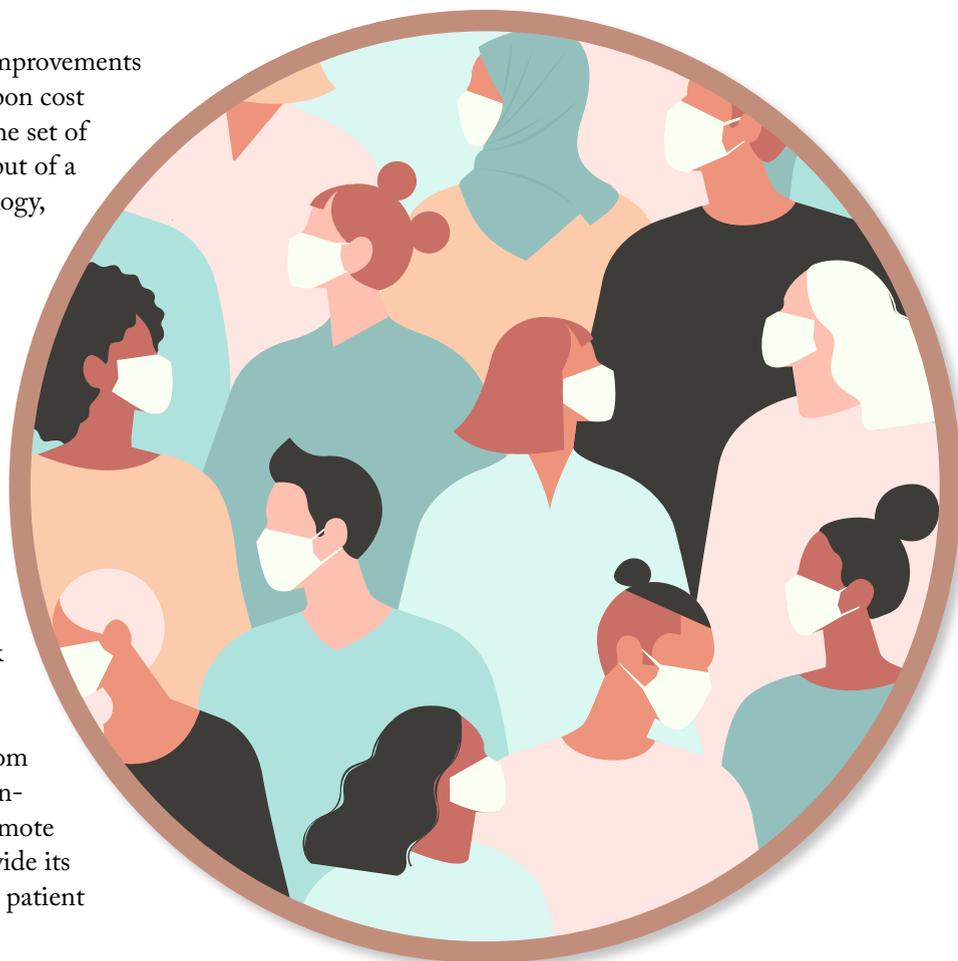
These and other changes to our everyday practice are likely to follow the COVID-19 pandemic and will establish new norms of clinic operation with the intent of improving overall productivity and quality while creating a buffer against economic losses from the next disruption that restricts patient access to our services.



Amar Rewari, MD, MBA, is a radiation oncologist with Associates in Radiation Medicine in Rockville, Maryland, and serves as chair of the Code Development and Valuation Subcommittee.



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Radiation Oncology Graduate Medical Education in the Time of COVID-19

BY CHELAIN R. GOODMAN, MD, PHD, AND SHAUNA R. CAMPBELL, DO, ON BEHALF OF THE ASSOCIATION OF RESIDENTS IN RADIATION ONCOLOGY (ARRO) EXECUTIVE COMMITTEE

AS OUR HEALTH CARE SYSTEM CAUTIOUSLY NEGOTIATES a return to more “typical” clinical operations following the acute phase of the COVID-19 crisis, we are beginning to appreciate the substantial impact this pandemic will continue to have on radiation oncology graduate medical education. Over the next year, residency training programs will be challenged to reevaluate traditional strategies for medical student recruitment, resident clinical and didactic training, board certification and the job search for graduating residents.

residents and attendings transitioned to a virtual setting for patient care, treatment planning and didactic education. Residents in cities most impacted by an anticipated patient surge, including New York City, Boston, Baltimore and Chicago, reported “redeployment” outside of radiation oncology with some caring for COVID-positive patients.¹ As stay-at-home and similar orders are lifted and departmental clinical volumes increase, it will be informative to analyze the continued incorporation of telemedicine and novel risk mitigation strategies as part of a “new normal.” At numerous programs, didactic education has similarly achieved a successful virtual transition without significant interruption, demonstrating the potential for greater incorporation of national shared educational resources and content.

Senior residents and recent graduates currently find themselves in a state of uncertainty regarding the upcoming ABR initial certification examinations. At the time of publication, the oral certifying examination for 2020 has been canceled, while the written qualifying examinations have been rescheduled for early December. Given concerns regarding the feasibility of long-distance travel or group testing for the foreseeable future, ARRO has asked the ABR to develop a contingency plan utilizing a virtual or web-based platform for both of these examinations that can be activated if necessary. The risk of repeated rescheduling makes it difficult for examinees to schedule the appropriate amount of time to prepare without compromising clinical training or impacting professional responsibilities for those in practice. By developing a web-based examination format, the ABR would be following in the footsteps of the medical boards for ophthalmology, general surgery and anesthesiology, as well as the U.S. Medical Licensing Examination (USMLE) — all of which have announced plans for virtual administration of their written or oral examinations.²

Since mid-March, residents and faculty from 71 of 90 radiation oncology training programs have contributed to a collaborative online forum developed to facilitate communication between residents and programs during the initial phase of the pandemic. While training program strategies have varied widely, many have adopted a rotating in-house system to minimize risk of asymptomatic transmission and preserve a pool of healthy medical providers. With the implementation of telemedicine protocols, many

With the suspension of the majority of external medical student rotations for the 2020-2021 academic year and the recommendation by the Association of American Medical Colleges (AAMC) for all



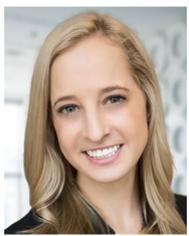
programs to commit to online interviews and virtual visits for all applicants, the 2021 Match will present challenges for both prospective residents and training programs.³ Medical students rely upon external rotations to confirm specialty choice, obtain letters of recommendation and evaluate potential fit of residency programs. At certain institutions, virtual clerkships with didactic lectures, treatment planning seminars and mentorship sessions are in development and represent an opportunity for inter-institutional collaboration.⁴ With the continued decline in applications by senior U.S. medical students for radiation oncology residency and the increased percentage of unfilled positions in both 2019 and 2020, training programs will benefit from creative approaches to medical student recruitment throughout the upcoming interview season.

Lastly, with the economic crisis leading to institutional hiring freezes and budgetary uncertainty, senior residents approaching the job search are understandably apprehensive. Particularly with the transition of the ASTRO Annual Meeting to a virtual format, typical approaches to networking and initial outreach to potential employers will need to similarly evolve. As the job market has been a top concern of trainees over the past several years, we encourage specialty leaders and organizations to prioritize ways to ensure this year's job search is as successful as possible.

The upcoming year will present numerous challenges for all of medicine, and radiation oncology is no exception. However, times of great crisis provide the opportunity for great progress. Over the past months, we have witnessed extraordinary innovation and technological development at a pace previously thought to be impossible. We believe that with continued collaboration, creativity and a willingness to incorporate novel approaches, our specialty has been presented with an opportunity to not only maintain the quality of radiation oncology graduate medical education but to significantly improve it for future residents. 🏠

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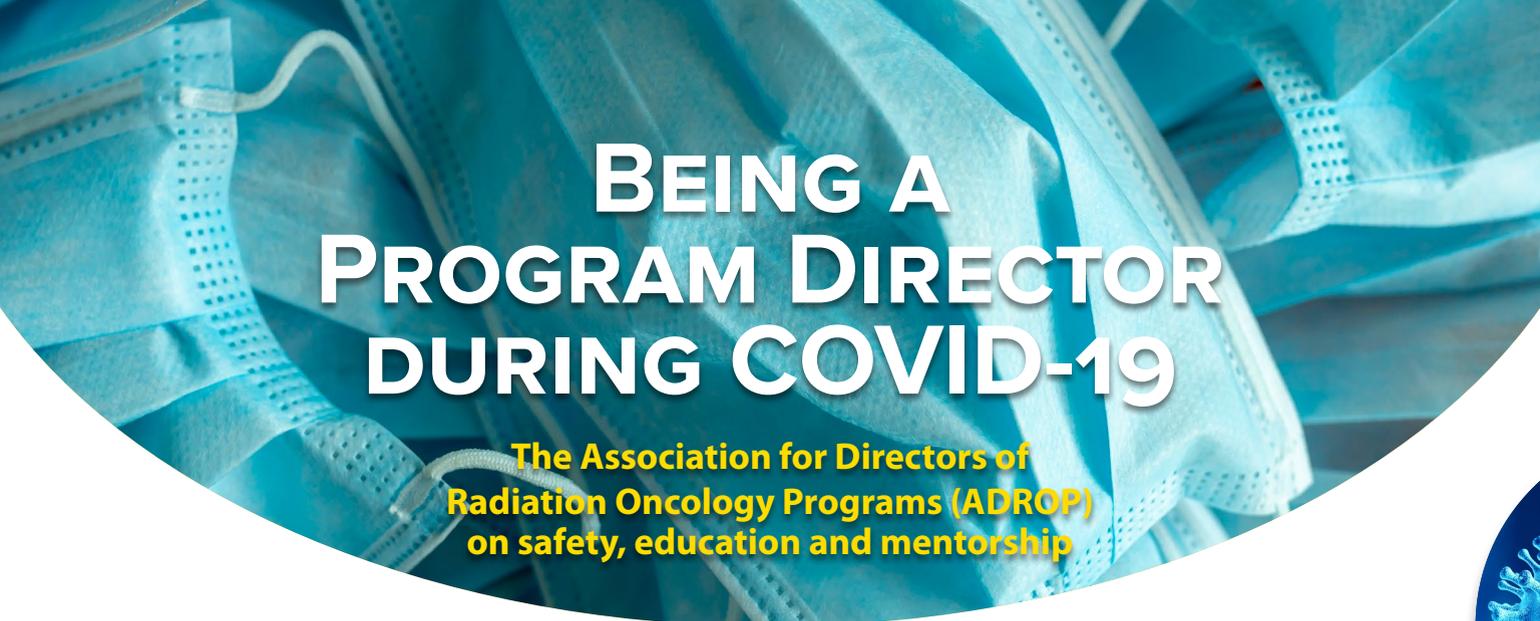
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Chelain Goodman, MD, recently completed her radiation oncology residency at Northwestern University Feinberg School of Medicine. She has accepted a faculty position as an assistant professor in the Department of Radiation Oncology at The University of Texas MD Anderson Cancer Center.



Shauna Campbell, DO, is a PGY-5 resident at Cleveland Clinic and chair of the ARRO Executive Committee. Before attending medical school at Chicago College of Osteopathic Medicine, she earned a BSC in radiation therapy, which led to wanting to become a radiation oncologist. Research interests include gastrointestinal malignancies and medical education.



BEING A PROGRAM DIRECTOR DURING COVID-19

The Association for Directors of
Radiation Oncology Programs (ADROP)
on safety, education and mentorship

BY KENNETH OLIVIER, MD, EMMA FIELDS, MD, AND SUSHIL BERIWAL, MD, MBA

THIS IS A DIFFICULT TIME TO BE A PROGRAM DIRECTOR, a doctor and a human. The situation with COVID-19 is fluid and changing rapidly, and every aspect of health care around the world has been impacted. As attending physicians, we are facing new challenges in meeting the needs of our patients and our struggling institutions. As educators, our trainees are facing similar challenges while simultaneously trying to learn our complex field. We are tasked not only with training them in the technical aspects of the field, but also in providing them safety (such as we can provide), mentorship and an example of how to practice during a crisis. That can be exceptionally hard when there are no precedents for what we are facing; but there are principles that we can apply, and we are receiving guidance from our governing bodies as it relates to our trainees. The following are some ideas and changes that we as program directors have made during this difficult time.

The safety of our trainees is always a priority. Resident rooms are often tight spaces with many desks that have residents in close proximity for extended periods. Finding ways to diminish the density of residents in that space is an important consideration. We are asking residents to work from home when possible, while doing their contouring, charting and EMR work from the resident's room. For those on research blocks, we are asking residents to stay at home if their projects permit. While in clinic, we consider the educational value of procedures such as nasopharyngoscopy, which can generate significant exposure for residents and staff. The same is true for procedures that require general anesthesia. When possible, we exclude residents from these procedures

to limit their exposure, given that attending staff are required for appropriate billing.

Having established the value of safety, the importance of technical knowledge and skills to give effective and safe radiation therapy has not changed. Our method of teaching that primarily relies on seeing patients, participating in tumor boards and designing therapies is rapidly evolving. More of these interactions are moving to online platforms, and residents need to be included and to participate to the same degree that they did previously. It is important for attending physicians to reach out by text or call to comment on treatment plans to the same degree as they did when we had the luxury of face-to-face encounters. We expect that some of these telemedicine and remote interactions will find a place in our practices after the COVID-19 pandemic has passed. Finding ways to maximize resident learning in that setting will pay long-term dividends.

While COVID-19 does not impact the incidence and prevalence of cancer, we are all seeing fewer patients in our clinic as our referring colleagues are seeing fewer patients. This is resulting in fewer simulations, fewer brachytherapy procedures and fewer radiopharmaceutical infusions. The ACGME and ABR have anticipated this, and some of the requirements for graduation (e.g., 450 simulations) have been loosened. They are, instead, relying on the program director's signed statement that the trainee is capable of "unsupervised practice." Now is a good time to consider how your program assesses that skill and provide the trainees clear guidance on what those assessments may be in the setting of insufficient numbers of sims and types of sims. We use oral exams, delivered by faculty,

to assess the resident's clinical skills and progression through the ACGME milestones. This can provide a useful supplement to rotation evaluations and in-service exams to ensure residents are ready to practice independently.

Our residents are watching us. These are uncertain times for everyone, but as attending physicians and educators, we should strive to be the leaders and mentors our trainees and patients need.

That means being brave when asked to serve outside of our normal scope of practice and training. To observe social distancing, proper PPE use and handwashing. Our residents learn more from us than CTV and PTV margins.

Lastly, we know this is the most uncertain time that any of us have ever faced. As program directors and fellow attending staff, we are here for our residents to offer advice or assistance. As a resident, please feel free to reach out to us if you have a question or just have something to discuss. 



Kenneth Olivier, MD, is a professor of radiation oncology at Mayo Clinic in Rochester, Minnesota, and the program director for the department, overseeing all the educational programs in radiation oncology within the department. He serves as president of the Association for Directors of Radiation Oncology Programs (ADROP).



Emma Fields, MD, is an associate professor and residency program director of radiation oncology at Virginia Commonwealth University in Richmond, Virginia, and serves as vice-president of the Association for Directors of Radiation Oncology Programs (ADROP).



Sushil Beriwal, MD, MBA, is a professor of radiation oncology at the University of Pittsburgh School of Medicine and residency program director at UPMC Hillman Cancer Center.

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SCAROP's Vision of Virtual Board Testing

BY LOUIS POTTERS, MD, FASTRO, JAMES A. BONNER, MD, FASTRO, AND THE SOCIETY OF CHAIRS OF ACADEMIC RADIATION ONCOLOGY PROGRAMS (SCAROP) EXECUTIVE COMMITTEE

WE ARE LIVING THROUGH EXTRAORDINARY TIMES

as a result of the COVID-19 pandemic that will have a lasting impact on health care, the economy and society at large. This is further amplified by the need to support diversity, inclusion and health equity where everyone, including our patients, is treated with dignity and respect and is valued and heard. If all that comes from this time of crisis is a return to “normal” — however that is defined — then shame on us for not taking advantage of the opportunities before us.

The unfolding of the crisis is driving changes in everything we do, from our personal and professional lives to how we practice medicine and radiation oncology. Use of technology is blossoming before us in the hyper-acceptance of telemedicine, the use of video conferencing, virtual meetings and all sorts of clinical apps. Change is before us to grasp.

There is no doubt that passing the Board examination has always represented the crowning achievement in one's early career as a physician. Clearly, the achievement of this goal rings true for today's radiation oncologists as well. Yet, the investment in passing the boards comes at a great cost in time and effort that usurps almost everything in one's life.

Recognizing the opportunity before us, SCAROP, ADROP, ASTRO and ARRO, in addition to 17 radiology specialty societies, have separately reached out to the ABR with the same recommendation to administer virtual examinations as a result of COVID-19. While these groups understand that the ABR holds the final authority regarding the administration of the exam, the SCAROP Executive Committee appreciates their determination to implement virtual testing options for the oral



ing as a Result of the COVID Pandemic

examination with the option for computer testing if Pearson VUE has any issues in December 2020.

SCAROP had expressed our concerns about delays in testing that would impact junior faculty by consideration of partnership, being a site PI on clinical trials, working locums (in some states) and salary (bonus), as each of these may be dependent on board certification. And we all recognize that delays certainly impact family planning decisions, including but not limited to potential travel restrictions on current and future pregnancies, disproportionately affecting females.

SCAROP believes that virtual testing will become as normal as telemedicine has become normal during the pandemic. And to assist with providing a safe and fair testing environment, SCAROP stands ready to assist to help proctor and provide attestations regarding local virtual testing according to whatever rules the ABR states.

There has been an ongoing dialogue with the ABR, and not just from residents and junior faculty, over the last number of years regarding the RO examination. Academic and educational members as well as a broader representation of the radiation oncology community stand ready to cooperate and collaborate to rapidly advance innovation in our field.

We see the adoption of a virtual examination as a first step in advancing the radiation oncology board certification process and look forward to ongoing discussion and dialogue regarding other changes, with one obvious example being a single written test inclusive of physics and radiation-biology. This would require that each section competencies be assured. Nevertheless, we are thankful for the current change and are ready to help in the process, and we are equally engaged for additional discussions with all stakeholders on this issue. 

Louis Potters, MD, FASTRO, is the current chair of SCAROP, and James Bonner, MD, FASTRO, is the immediate past chair of SCAROP.



Radiation Oncology Residency Training and ACGME Accreditation in the Midst of COVID-19

BY NEHA VAPIWALA, MD, AND CHERYL GROSS, MA, CAE

WITH SIGNIFICANT NUMBERS OF PATIENTS ARRIVING or being transferred to teaching hospitals, pressures related to the COVID-19 pandemic have been overwhelming for program leadership, faculty, residents and staff. During the pandemic, Accreditation Council for Graduate Medical Education (ACGME) trusts designated institutional officials, program directors and faculty members to make the changes necessary to care for patients during this crisis. And throughout the pandemic, ACGME has seen the aspirational best of our profession and health care community emerge in response.

ACGME-accredited programs should graduate only those residents who have demonstrated the ability to perform all medical and diagnostic procedures considered essential for the area of practice. The program director, on recommendation from the program's Clinical Competence Committee (CCC), must assess the procedural competence of each resident to ensure the resident is prepared to enter autonomous practice.

The ACGME Case Log minima were established for program accreditation and are used by the Review Committee to determine whether a given program offers a volume and variety of cases sufficient for education of the complement of residents for which the program is accredited. The minima are not a surrogate for determining the procedural competence of a resident.

The pandemic very likely will result in a reduction in the number of procedures performed by the residents in our programs for the foreseeable future. A resident who has not met all case minima may be deemed by the program director/CCC to be competent and allowed to complete the program as scheduled. On the other hand, another resident exceeding all case minima may not be deemed to be competent and need remediation until competence can be demonstrated. Extension of the educational program as a result of the current circumstances must not be viewed as reflecting poorly on the affected residents in any way. Rather, it is a reflection of the program's obligation to the public, the

ACGME and the residents themselves in response to circumstances beyond the program's control.

The ACGME accredits programs. It does not certify individuals. What an extension of the educational program would mean for a given individual in terms of the board certification process will be determined by the American Board of Radiology (ABR) or the determination of Authorized User status by the Nuclear Regulatory Commission (NRC).

Regarding program accreditation decisions, the ACGME and its Review Committees use the standard of substantial compliance, rather than absolute compliance, in making accreditation decisions. Accreditation decisions include the accreditation status of the program but also include the levying of citations and areas for improvement. In making accreditation decisions, the Review Committee thoughtfully considers all available information from and about a program (e.g., Case Logs, Resident/Fellow and Faculty Survey results, and the program Annual Update).

The Review Committee will judiciously consider the Case Logs of a program's graduates on duty during the pandemic (particularly those in their ultimate or penultimate years) in light of the impact of the pandemic on that program. During the Annual Update, the program should describe the pandemic's effect on the program in the Major Changes and Other Updates section in the Accreditation Data System (ADS), as applicable.

Despite the very real, unfortunate and, in some instances, devastating effects of the COVID-19 pandemic, there are opportunities that are truly unique, at least in our lifetimes. In coping with this historic challenge, residents and faculty members will witness the value of preventive care and coordinated public health systems. They will grow through interdisciplinary and interprofessional teamwork in ways never before possible. They will experience in real time the extreme boundaries of systems-based care. And, they will develop deep, life-long friendships that can only be born through mutual adversity. When this passes, as it inevitably will, our world will be changed. But, our health care systems, our programs and each of us will be better on the other side. 



Neha Vapiwala, MD, is a professor of radiation oncology and dean of admissions at the Perelman School of Medicine at University of Pennsylvania in Philadelphia and serves as chair of the ACGME Review Committee for Radiation Oncology.



Cheryl Gross, MA, CAE, is executive director of the ACGME Review Committee for Radiation Oncology.



G L O B A L O N C O L O G Y :
RADIATION THERAPY IN A CHANGING WORLD

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THE AMERICAN BOARD OF RADIOLOGY RESPONSE TO THE COVID-19 PANDEMIC

AS REPORTS OF THE APPEARANCE, identification and spread of the 2019 novel coronavirus SARS-CoV-2 — later officially designated COVID-19 by the World Health Organization (WHO)¹ — began to appear from China, the ABR started carefully monitoring worldwide events. On March 5, the ABR launched a COVID-19 page on its website. As of April 15, the page had received over 20,000 views. It became evident that the disease was spreading globally, and on March 11, the WHO officially designated the outbreak as a global pandemic.² As the outbreak widened, the ABR and other ABMS Member Boards were faced with a series of decisions that would have significant impact on the organizations, their staff and volunteers, and, critically, residents and candidates in the process of initial certification (IC).³

The process of developing ABR radiation oncology (RO) IC assessment instruments and delivery logistics occurs over a period of several years. Contracts for the Pearson VUE test centers used to administer the IC qualifying (computer-based) exams in physics and biology are executed a minimum of two years in advance of each administration, as are contracts for the hotels used for administering the certifying (oral) exams. During the summer and fall of the year preceding exam administration, computer-based items (questions) are submitted by groups of volunteers and edited by ABR staff for clarity, consistency and psychometric validity. Clinical cases for the certifying exam are submitted by committee members, reviewed by internal ABR editing and imaging staff and then developed into appropriate clinical case presentation format. Invitations to examiners for each certifying exam are sent at least six months in advance of the annual May administrations. In the late winter or early spring of each year, volunteers meet at the ABR Tucson, Arizona, office for test assembly (TA), during which each of the more than 400 items intended for use in the upcoming July qualifying exams is reviewed, re-edited for clarity, discarded when appropriate and replaced as needed. This intensive TA process typically encompasses two to three days of volunteer and staff time.

During the first week of March, as reports of COVID-19 cases in the U.S. increased, the ABR began to receive notification of flight disruptions and prohibitions on nonessential travel by volunteers' home institutions. As the number of committed oral examiners declined, it became evident that it would be impossible to muster a sufficient complement of examiners to administer the May 3-5 oral exams to over 200 registered candidates. The ABR also anticipated that candidates might also be precluded from traveling to Tucson to take their exams. Thus, on March 6, with mounting evidence of tremendous health risk and logistical challenges and a full understanding of the inherent implications of the decision, in the interest of staff, volunteer and candidate health and safety, the ABR decided to postpone administration of the May RO oral exams. Candidates who had registered for the May exams were notified of the decision on March 7.

The 2020 RO TA was scheduled to take place in Tucson March 15-16. Volunteers who had been prevented from travel in May were also prohibited from travel to this function and many found themselves also called away for family concerns. Thus, the ABR decided to cancel the onsite Tucson RO TA. Working with dedicated ABR IT and exam development staff, the TA was carried out in its entirety by a secure webinar over two days, in which each of the more than 400 items was reviewed and scored in a manner similar to the onsite process it replaced. On April 13, with a continued increase in incidence and deaths related to the virus, increasing reports of disruption in training programs and the unavailability of the Pearson VUE test centers, the ABR decided to postpone the July qualifying exam administrations. That decision was immediately transmitted to exam registrants and program directors.

After the decision had been made to postpone the May oral and July computer-based exams, ABR staff and volunteer leaders were faced with deciding how and when to reschedule the exams and determining the status of residents and candidates who had registered for those postponed sessions. Options that were considered included delaying both sets of exams until

Continued on following page

the previously scheduled sessions in May and July 2021 and rescheduling both sets of exams for later in 2020. Various stakeholder representatives suggested the option of administering both the computer-based and oral exams remotely by commercially available web-based platforms. These options were thoughtfully considered and determined to be infeasible at this time. While the option to simply forego administration of the 2020 exams was a simple approach, in consultation with representatives of the Society of Chairs of Academic Radiation Oncology Programs (SCAROP), Association for Directors of Radiation Oncology Programs (ADROP) and Association of Residents in Radiation Oncology (ARRO), it was determined that this would not be preferred by a majority of the involved residents and candidates. Working with hotel properties in Tucson, a plan was adopted to administer the oral exams in Tucson October 11-13, 2020. These dates were selected based on hotel availability, avoidance of fall holiday and meeting conflicts and to provide time for new examiner invitations and other logistical arrangements. Rescheduling the computer-based exams presented a more difficult logistical issue because of the ABR's reliance on Pearson VUE test centers. Pearson VUE had closed its operations from March through June, and many of their large clients were rescheduling for later in 2020, resulting in limited date availability to the ABR for rescheduling the RO qualifying exams.

On May 18, the ABR announced that it had reached an agreement with Pearson VUE to schedule the computer-based exams in physics and radiation and cancer biology for Monday, December 7. The computer-based exam in clinical oncology will be administered on Tuesday, December 8. Registration for the exams will open on Monday, August 3. After close monitoring of national plans for the continuation of social distancing and other health safety measures, on June 3, the ABR announced to all stakeholders that administration of the RO oral exams in October was not feasible and that no face-to-face exam administration was anticipated for 2020. The ABR is aware that the revised qualifying exam dates may be problematic for some individuals previously registered for the July exam administrations. Those unable to attend the rescheduled exams will be able to register for the 2021 sessions without additional fees. Within the ABR IC primary certification disciplines, diagnostic radiology, interventional radiology/diagnostic radiology and medical physics have faced similar obstacles and made similar alterations.

All ABMS Member Boards with spring and summer exam schedules were faced with similar concerns and decisions, some of which were driven by closures of Pearson VUE and Prometric, the two commercial test administration centers used by many of the boards for their computer-based exams. Member Board responses took several paths: 1) postponement of scheduled oral exams with proposed rescheduled dates,^{4,5} 2) postponement of scheduled oral exams with no proposed rescheduled dates,⁶ 3) postponement of scheduled computer-based exams with proposed rescheduled dates,^{7,8} and 4) postponement of scheduled computer-based exams with no proposed rescheduled dates.⁹⁻¹⁵ Several of the Member Boards had no exams scheduled for the spring or summer and thus were not directly impacted.^{16,17}

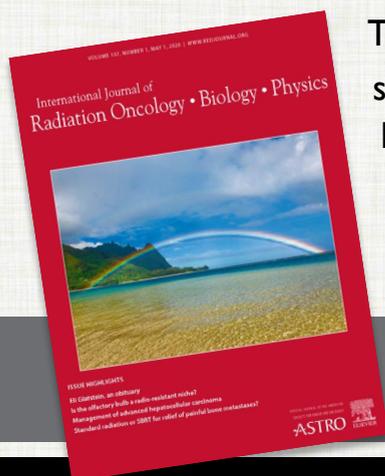
All ABR senior physician leaders and staff are, or have been, training department chairs, program directors or educators directly involved in post-graduate medical education. They understand the personal, family, career and program implications of the decisions they make regarding IC. In the interest of future developments in exam administration, on May 28 the ABR convened a webinar with appropriate stakeholders to consider future exam scheduling and alternative exam delivery methods. Following careful monitoring of pandemic activity, decisions regarding non-essential travel anticipated by many examiner and examinee sending facilities, and consultation with other ABMS member boards, on June 22 the ABR announced its decision to abandon face-to-face oral exams for the 2020 class and for the future. It is hoped that this cohort of candidates can be examined by a "virtual" exam process sometime in the first six months of 2021. If Pearson VUE test centers remain available, the basic science exams currently scheduled for December 7 and 8 will proceed at those centers. In the future, the Board anticipates that a separate virtual exam platform will negate further reliance on Pearson VUE. Because there is no currently available assessment package that meets all of the ABR requirements, precise dates and logistics of 2021 oral exam administrations are yet to be finalized, but announcements in this regard will be made as soon as those decisions are finalized. As in the past, future decisions will be based on supporting the best interests of all stakeholders while, at the same time, maintaining the credibility of the certification process.



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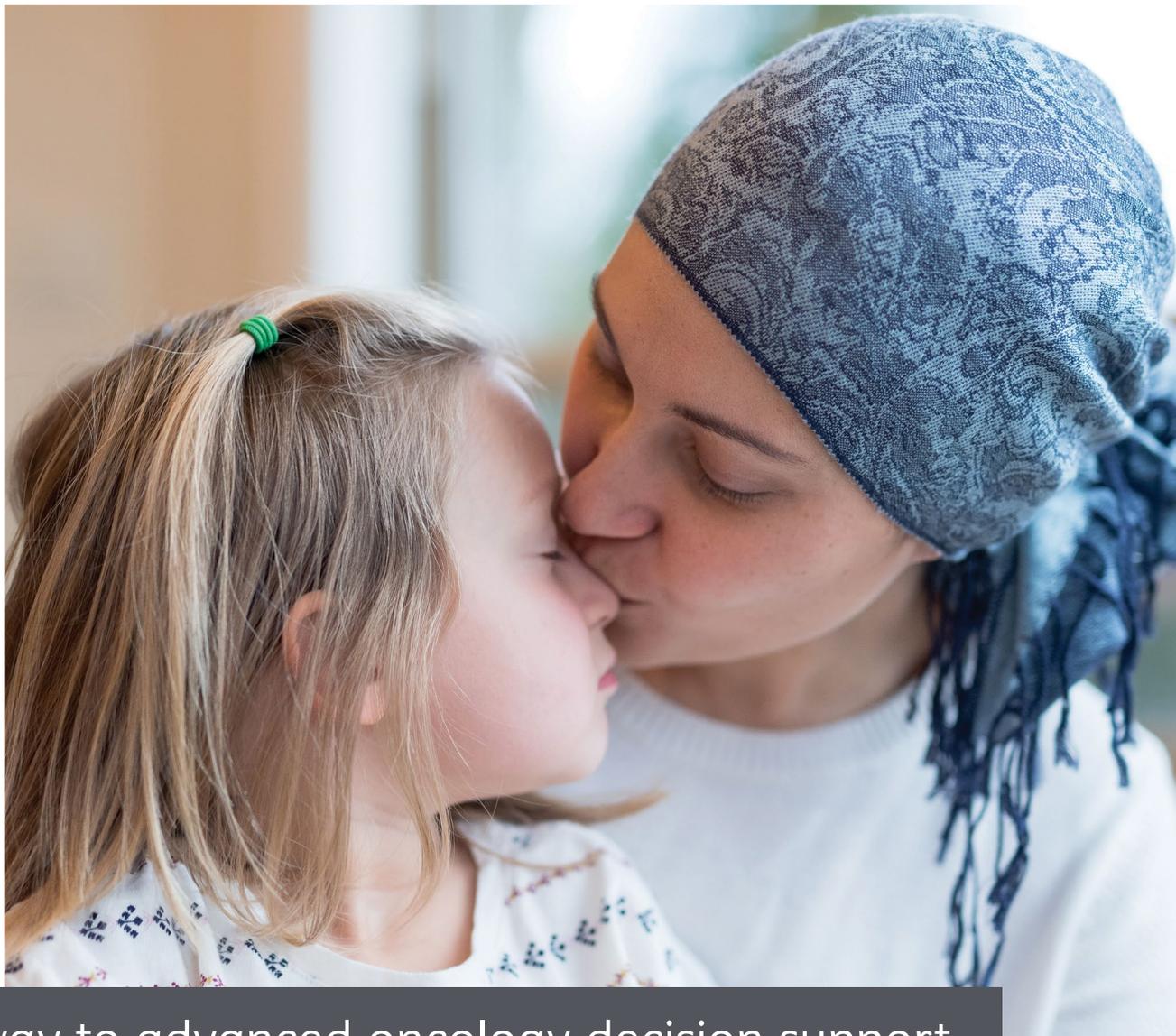
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- Support reporting requirements for quality programs and alternative payment models

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HIGHLIGHTS FROM INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY • BIOLOGY • PHYSICS

April 1, 2020

Evaluating Positron Emission Tomography-based Functional Imaging Changes in the Heart After Chemoradiation for Patients with Lung Cancer

Vinogradskiy et al.

This prospective study sought to characterize pre- and post-treatment cardiac metabolic changes using fluorodeoxyglucose/positron emission tomography (FDG-PET) images to evaluate whether changes in cardiac metabolism predict overall survival (OS) for patients with lung cancer treated with chemoradiation. PET-based metabolic dose-response was assessed by comparing pre-treatment to post-treatment mean standardized uptake values (SUV_{mean}) in the heart as a function of dose-bin. OS analysis was performed by comparing SUV_{mean} changes for patients who were alive or had died at last follow-up and by using a multivariate model to assess whether pre- to post-treatment SUV_{mean} changes were a predictor of OS. At median follow-up of 437 days, SUV_{mean} change was significantly predictive of OS on multivariate analysis with a hazard ratio of 0.541. Patients alive had an average increase of 17.2% in cardiac SUV_{mean} while patients that died had an average decrease in SUV_{mean} decrease of 13.5%. The study concludes that the work must be validated in an independent cohort, and if validated, the data show the potential for cardiac metabolic changes to be an early predictor for clinical outcomes.

March 1, 2020

A Phase II Trial of Stereotactic Ablative Radiation Therapy as a Boost for Locally Advanced Cervical Cancer

Albuquerque et al.

This study sought to assess the feasibility, safety and efficacy of stereotactic ablative radiation therapy (SABR) as an alternative for standard brachytherapy boost for locally advanced cervical cancer (LACC) after initial chemoradiation. Study participants were either medically unfit, refused intracavitary or tumor extent required interstitial brachytherapy for coverage.

At median follow-up of 19 months, 15 of 21 patients completed owing to concern for toxicity. Patients had predominantly advanced stage (III-IV, 53%) with median Charlson comorbidity score of 4. Most tumors were large, and that, plus patient comorbidities, probably contributed to the lower-than-expected two-year local control (70.1%), progression free (46.7%) and overall survival (53.3%). The authors conclude that suboptimal outcomes were probably related to patient selection and very large tumor volume and suggest this approach may still be considered in patients with smaller tumors who are unable to undergo standard brachytherapy.

March 15, 2020

A Phase II Trial of Alternative Volumes of Oropharyngeal Irradiation for De-intensification (AVOID): Omission of the Resected Primary Tumor Bed After Transoral Robotic Surgery for Human Papilloma Virus-related Squamous Cell Carcinoma of the Oropharynx

Swisher-McClure et al.

This Phase II clinical trial tested the safety and efficacy of a radiation therapy approach after initial surgical resection for patients with human papilloma virus (HPV) associated oropharyngeal squamous cell carcinoma (OPSCC). After receiving a transoral robotic surgery (TORS), 60 patients received radiation therapy to at-risk areas in the involved neck (60-66 Gy) and uninvolved neck (54 Gy). The resected primary site was treated as an active avoidance structure in the treatment planning. Concurrent chemotherapy was administered for patients with extranodal extension. A median follow-up of 2.4 years showed overall survival of 100% and two-year local control was 98.3%. Local recurrence-free survival was 97.9%. These results led the authors to conclude that deintensified postoperative radiation therapy that avoids the resected primary tumor site and targets only the at-risk neck after TORS for selected patients with HPV-associated OPSCC may be safe and is worthy of further study.



Continued on following page

July 15, 2020

Practice Recommendations for Risk-adapted Head and Neck Cancer Radiation Therapy During the COVID-19 Pandemic: An ASTRO-ESTRO Consensus Statement

Thomson *et al.*

ASTRO and the European Society for Radiotherapy and Oncology (ESTRO) identified and responded to an urgent need to issue practice recommendations for radiation oncologists treating head and neck cancer (HNC) in a time of heightened risk for patients and staff during the COVID-19 pandemic. A panel of experts from ASTRO, ESTRO and select Asia-Pacific countries developed recommendations for five common HNC cases. The recommendations cover a number of practice areas, including treatment prioritization, whether to delay the start of treatment or interrupt treatment for COVID-19 infection, approaches to treatment, management of surgical procedures in event of operating room closures and adjustments to outpatient clinic appointments and supportive care.

May-June 2020

Radiation Therapy for Small Cell Lung Cancer: An ASTRO Clinical Practice Guideline

Simone *II et al.*

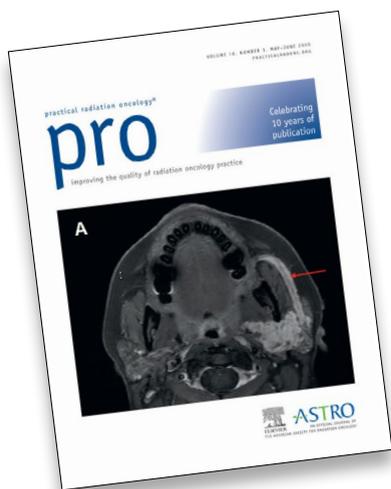
This new clinical practice guideline provides recommendations on the use of radiation therapy to treat patients diagnosed with small cell lung cancer (SCLC). ASTRO convened a task force to address four key questions focused on indications, dose fractionation, techniques and timing of thoracic radiation therapy for both limited-stage (LS) and extensive-stage (ES) SCLC, the role of stereotactic body radiation therapy (SBRT) compared with conventional RT in stage I or II node negative SCLC, prophylactic cranial irradiation (PCI) for LS-SCLC and ES-SCLC, and thoracic consolidation for ES-SCLC. The guidelines were developed based on a systematic literature review and consensus-building methodologies. The task force concludes that radiation therapy plays a vital role in both LS-SCLC and ES-SCLC and these guidelines inform the best clinical practices for local therapy for SCLC.

March-April 2020

Peer Influence on Physician Use of Shorter Course External Beam Radiation Therapy for Patients with Breast Cancer

Yu *et al.*

The study authors examined the role of physician peer influence on the use of short courses of external beam radiation therapy (EBRT) for patients with breast cancer. The authors applied the theory of social contagion to their investigation to see if it affects the sharing of innovative and high-value cancer care. The authors used a group of Medicare beneficiaries with breast cancer to construct physician peer groups based on patient-sharing relationships. Outcomes were measured on patients receiving either moderately hypofractionated adjuvant EBRT after surgery and short-course palliative EBRT for bone metastases. The authors conclude that physician peer groups significantly influenced use of short-course EBRT in adjuvant therapy but not in palliative therapy.



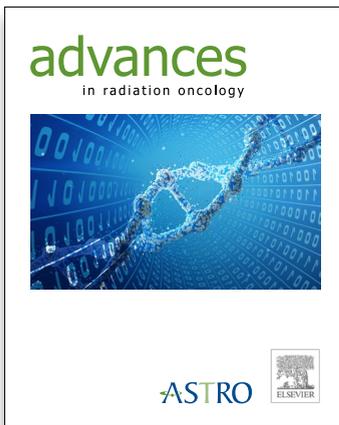
HIGHLIGHTS FROM PRACTICAL RADIATION ONCOLOGY

July-August 2020

Washing Away the Fear

Amdur and Yeung

In this Narrative Oncology piece, the authors examine how the coronavirus has “transformed the radiation oncology department into a place of fear for the safety of our patients, our colleagues and ourselves.” The frequent, common task of washing and sanitizing hands has turned into a first line defense against the COVID-19 virus. The authors conclude that the ritual of applying hand sanitizer “through the tough times” may turn into a future source of comfort forever.



HIGHLIGHTS FROM *ADVANCES IN RADIATION ONCOLOGY*

Assessing and Providing Culturally Competent Care in Radiation Oncology for Deaf Cancer Patients

Hill et al.

More than a million Americans are culturally Deaf; however, little has been studied on the disparities in oncology care for this cohort. The authors performed an evidence-based literature review of culturally competent care for deaf patients to better educate oncology practitioners on the unique needs of this group. The review found that clinical outcomes of deaf patients with cancer remain poorly characterized, highlighting the need for a care model to promote culturally competent oncological care for deaf patients.

Covert COVID-19: CBCT Lung Changes in an Asymptomatic Patient Receiving Radiotherapy

Youssef et al.

Data suggests cancer patients infected with COVID-19 are at a higher risk for severe events and unfavorable outcomes. Chest computed tomography (CT) plays

a major role in the identification of COVID-19 pneumonia. Cancer patients undergoing radiotherapy (RT) commonly have daily cone beam computed tomography (CBCT) obtained for image-guided radiotherapy (IGRT), and such imaging frequently includes the chest. Using a retrospective review of daily CBCT obtained for IGRT of an initially asymptomatic patient who later developed COVID-19 symptoms, the authors surveyed for changes consistent with COVID-19. Bilateral, peripheral GGOs were noted in the CBCTs taken two days before symptoms appeared. The authors conclude that familiarity with typical CT changes of COVID-19 pneumonitis may allow for early detection in patient undergoing CBCT for RT treatment and recommend prompt review of the lung windows to identify changes, which could lead to expedited patient management, improved outcomes and a reduction of infection spread.

Prostate Cancer Radiation Therapy Recommendations in Response to COVID-19

Zaorsky et al.

Cancer treatments during a global health emergency require consideration of risks and benefits for patients and staff. Radiation oncologists from the United States and the United Kingdom rapidly conducted a systematic review to develop recommendations to safely manage patients with prostate cancer during the COVID-19 pandemic. A RADS (remote visits, and avoidance, deferment and shortening of radiation therapy) framework was created and applied for all prostate cancer disease stages commonly treated with radiation therapy to determine appropriate approaches. The authors determined that for all identified stages of prostate cancer, resources can be reduced and that the RADS framework can be applied to other disease sites to help with decision making during a pandemic. 

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Elevate your Workflow

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Head & Neck



Craniospinal



Breast



SBRT



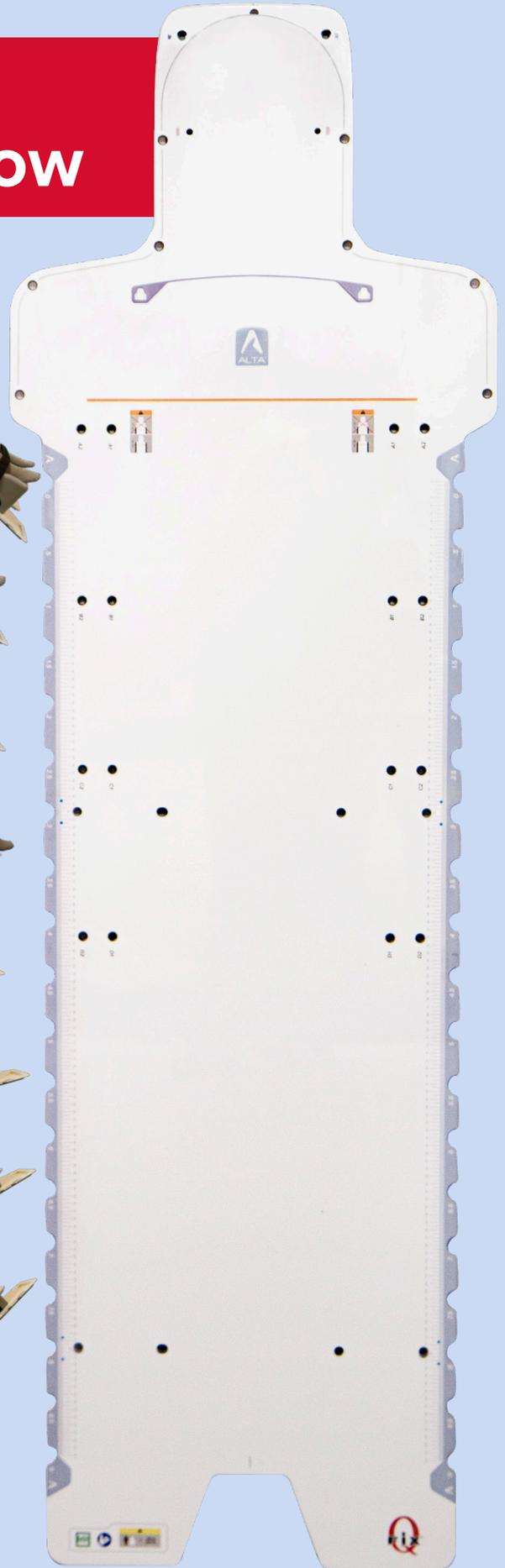
Lung



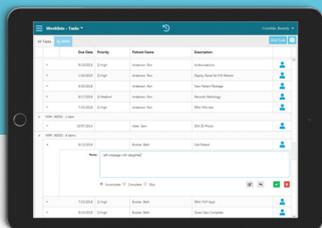
Abdomen



Pelvis



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