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### Title

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### Permalink

<https://escholarship.org/uc/item/0tb154hb>

### Journal

JCO Clinical Cancer Informatics, 4(4)

### ISSN

2473-4276

### Authors

Bejjani, Anthony  
Burt, Lindsay  
Washington, Christina  
et al.

### Publication Date

2020-11-01

### DOI

10.1200/cci.20.00073

Peer reviewed

## DECISION MAKING

# Using a Collaborative, Virtual Discussion Platform to Mobilize Oncologic Expertise for the COVID-19 Pandemic

Anthony Bejjani, MD<sup>1</sup>; Lindsay Burt, MD<sup>2</sup>; Christina Washington, MD<sup>3</sup>; Michael Terao, MD<sup>4,5</sup>; Samir Housri, MBA<sup>6</sup>; and Nadine Housri, MD<sup>6,7</sup>

## abstract

**PURPOSE** COVID-19 is a rapidly emerging worldwide pandemic that has drastically changed health care across the United States. Oncology patients are especially vulnerable. Novel point-of-care resources may be useful to rapidly disseminate peer-reviewed information from oncology experts nationwide. We describe our initial experience with distributing this information through a private, curated, virtual collaboration question-and-answer (Q&A) platform for oncologists.

**METHODS** The Q&A database was queried for a 2-month period from March 12 to May 12, 2020. We collected the total number of views and unique viewers for the questions. We classified the questions according to their emphasis (practice management, clinical management, both) and disease type across radiation oncology, medical oncology, gynecologic oncology, and pediatric oncology.

**RESULTS** Seventy-nine questions were approved, 67 of which were answered and generated 49,494 views with 5,148 unique viewers. Most discussions covered clinical management, with breast cancer being the most active disease site. Ten questions covered pediatric oncology and gynecologic oncology. Forty-seven percent of the 11,010 users of the platform visited the website during the 2-month period.

**CONCLUSION** Discussions on the Q&A platform reached a substantial number of oncologists throughout the nation and may help oncologists to modify their treatment in real time with the rapidly evolving COVID-19 pandemic.

JCO Clin Cancer Inform 4:794-798. © 2020 by American Society of Clinical Oncology

## INTRODUCTION

Clinical oncology practice changes frequently with the advent of new treatments and new publications. The doubling time of medical knowledge has continued an exponential increase, now estimated to be approximately 72 days.<sup>1</sup> This knowledge expansion may lead to information overload, providing an avenue for point-of-care resources to distill topics into concise, actionable summaries.<sup>2</sup> These point-of-care resources are viable alternatives to browsing through primary sources, such as PubMed.<sup>3,4</sup> Newer social media platforms, such as Twitter and Facebook, offer dynamic interaction that is not available with the first advent of point-of-care resources, such as UpToDate. However, these platforms serve many other purposes and are not frequented by many practicing oncologists with the explicit purpose of exchanging information on how to treat patients. The lack of a private, controlled environment with those platforms may lead to the distribution of incorrect information.

We have created a private, curated, virtual question-and-answer (Q&A) platform exclusively for radiation,

medical, pediatric, and gynecologic oncologists to discuss scenarios and concepts that are not answered by textbooks, guidelines, or other point-of-care sources, such as UpToDate. Just over 1,000 oncologists are designated as experts who provide their insights to questions by > 11,000 community or academic oncologists from throughout the United States. Topics range from standard-of-care practices (“When do you choose a nonanthracycline-containing regimen [ie, docetaxel plus cyclophosphamide] for patients with hormone receptor–positive, HER2 [human epidermal growth factor receptor 2]–negative breast cancer who warrant adjuvant chemotherapy?”), to recent publications (“Would you offer first-line atezolizumab plus bevacizumab in unresectable/metastatic hepatocellular carcinoma on the basis of the IMbrave 150 data?”), to overarching oncologic care (“How do you decide the right time to transition to hospice?”).

The COVID-19 pandemic has upended medical systems throughout the world that have grappled with the paucity of knowledge for clinical and practice management. Oncology patients have excess morbidity from delays in their cancer care and may need to

Author affiliations and support information (if applicable) appear at the end of this article.

Accepted on August 4, 2020 and published at [ascopubs.org/journal/cci](https://ascopubs.org/journal/cci) on September 8, 2020; DOI <https://doi.org/10.1200/CCI.20.00073>

## CONTEXT

### Key Objective

Oncologists routinely use point-of-care tools to treat patients according to standards of care, but the scope of this use has not been described in relation to the COVID-19 pandemic. Can a novel point-of-care educational resource help oncologists across the nation to adopt best practices in response to the dynamic pandemic?

### Knowledge Generated

A virtual collaborative platform may facilitate discussions among community and academic oncologists across the nation. As measured by the number of unique questions and viewers, this method of information exchange may effectively distribute strategies for oncologists to adapt to the COVID-19 pandemic.

### Relevance

Virtual, dynamic question-and-answer platforms may help oncologists to address clinical questions and practice management challenges that will arise during the COVID-19 pandemic. An interactive user interface and searchable database allow reliable, frequent use of such platforms and effectively curate this expertise for ease of use on a day-to-day basis.

continue their care, which increases the risk of being exposed to SARS-CoV-2. Early experience from China has shown that the illness carries high mortality in patients with cancer, especially patients recently on treatment.<sup>5,6</sup> Given the implications for care of patients with cancer, oncologists on the platform posed questions to academic leaders from across the United States involved in the early care of these patients. We share the experience thus far to demonstrate the impact of the platform to reach oncologists across the country to keep them informed on practice changes in accordance with the evolving pandemic.

## METHODS

Physicians, who are verified as US-based practicing oncologists, submitted questions for review. Physician-editors evaluated, edited, and approved or rejected questions related to COVID-19 on the basis of criteria routinely implemented for questions on the platform. We queried the database for questions tagged with “COVID-19 virus” from March 12, 2020, to May 12, 2020, to represent the peak activity of discussions as the pandemic began to unfold.

Experts within their particular focuses in oncology were recruited to collaborate on the platform on the basis of their research, publications, case volume, and clinical trials and by peer recommendation. Their user profiles are subsequently tagged with their stated expertise to aid editors in assigning proper questions to them. Editors then assign questions to experts most qualified to answer them by using these tags, reading short curated biosketches generated by the staff, and searching their publication history. With regard to COVID-19, editors requested answers from disease-site experts in addition to experts who initiated creation of departmental policies and guidelines in their respective institutions. Answers submitted by experts are subsequently peer reviewed by their colleagues and reviewed by the editorial staff to ensure that they abide by a code of conduct. Duplicate questions and questions that did not pertain to oncology practice management or care of

oncology patients were rejected. Other criteria routinely implemented for questions are that questions must be concise, actionable, and helpful for the community, not just for the physician asking the question.

We collected the total number of views of the approved questions and total number of unique viewers (individual users) to demonstrate the scope of engagement on the platform during March 12 to May 12, 2020, 2 months after the first question was posted. We categorized the Q&A threads by their emphasis (practice management, clinical management, overlapping). Practice management was defined as questions that discussed protocols within clinics, such as telemedicine, scheduling, personal protective equipment, and disinfecting equipment. Clinical management was defined as questions that discussed modification of treatment algorithms, such as adjuvant treatment delay, neoadjuvant treatment modifications, and hypofractionated or short-course radiation therapies. We also categorized questions by their oncology subspecialty (radiation, medical, pediatric, gynecologic) and further subcategorized clinical management Q&A threads by disease site, such as breast cancer, lung cancer, and prostate cancer, to delineate the differences in management and risk.

## RESULTS

A sample Q&A thread is shown in [Figure 1](#) to display some of the interactive features of each discussion. The results for question emphasis are listed in [Table 1](#). There were 79 questions approved, 67 of which were answered and generated 49,494 views with 5,148 unique viewers. There were 167 answers given by 123 experts across the country. The most viewed practice management covered radiation oncology with the question “What are best practices for radiation oncology patient and staff precautions with the COVID-19 pandemic?” This question generated 5,162 views with 1,875 unique viewers. Several updates were posted to the Q&A thread throughout the first 2 weeks of

Posted by: **What are best practices for radiation oncology patients and staff precautions with the COVID-19 pandemic?** ✎ Edit

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✎ Write an Answer

Request Answers ↓

Topics: Radiation Oncology Medical Oncology General Radiation Oncology COVID-19 virus

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13 Answers ⚙️ Manage Sort by: Top Ranked ↓

✎ Edit

Associate Professor  
University of Maryland

Answered on March 14 2020  
Updated on March 14 2020

Here is what we are doing (University of Maryland, Baltimore). I have divided it up into different sections. These are copies of emails I have sent. Happy to update as we distribute more info. Hope this helps others!

Dosimetry Staffing:

Beginning Monday, 3/16 on site staffing will be as follows:

- 1 photon dosimetrist on site at each photon clinic
- 4 dosimetrists on site at proton center

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**RELATED QUESTIONS**

**FIG 1.** Sample question-and-answer thread.

questions, which likely is reflected by the number of users who visited the thread multiple times.

Most of the questions answered were about clinical management. The most viewed clinical oncology question was “How will your management of head and neck cancers change with the COVID-19 pandemic?” This question had 1,397 views with 758 unique visitors. The number of clinical questions that specified disease sites are listed in [Table 2](#). By disease site, breast cancer had the most questions asked and answered, with topics frequently covering the use of neoadjuvant endocrine therapy for low-risk estrogen receptor–positive disease, neoadjuvant

chemotherapy for HER2-positive or triple-negative disease, adjuvant chemotherapy with high 21-gene recurrence scores (> 25), and hypofractionation strategies. There were seven clinical pharmacology questions agnostic of tumor site, such as administration of pembrolizumab every 6 weeks, granulocyte colony-stimulating factor use, and immunotherapy adverse event and pneumonitis management. There were four general questions that discussed general concepts about neoadjuvant chemotherapy, adjuvant chemotherapy, and radiation techniques (tandem and ovoid brachytherapy, active breathing coordination).

**TABLE 1.** Question Emphasis With Regard to COVID-19 and Oncologic Care

Question Emphasis	Questions Answered (No.)	Unique Views for Most Viewed Question (No.)	Most Viewed Question
Practice management	13	1,875	What are best practices for radiation oncology patient and staff precautions with the COVID-19 pandemic?
Clinical management	50	758	How will your management of head and neck cancers change with the COVID-19 pandemic?
Overlap	4	1,477	How should you manage a coronavirus infected/suspected patient who is receiving radiotherapy and cannot interrupt or delay their cancer treatment?

**TABLE 2.** Clinical Management Subspecialty and Disease Site

Disease Site	Questions Answered (No.)
Breast cancer	13
Pediatric hematology/oncology	6
Gynecologic oncology	4
Non-small-cell lung cancer	3
Lymphoma	3
Head and neck cancer	2
Rectal cancer	2
Germ cell tumors	2
Sarcoma	1
Colon cancer	1
Prostate cancer	1
Urothelial cancer	1

Four questions overlapped both practice management and clinical management concepts. Two popular questions discussed the management of patients with confirmed/suspected COVID infections who were receiving radiotherapy or chemotherapy and who could not interrupt or delay their cancer treatment. These two questions had 3,859 views with 1,961 unique users. We generated a question thread containing the official guidelines from ASCO, the American Society for Radiation Oncology, and the National Comprehensive Cancer Network shortly after the guidelines were published on March 17-19, 2020. This guideline thread was viewed 2,121 times by 1,168 unique users.

Overall, across all the oncology subspecialties, we received 5,239 visitors to the virtual, collaborative Q&A platform from March 12 to April 12 and 5,108 visitors from April 13 to May 12. This represents 46.3%-47.5% of the 11,010 total users of the platform. The website received 934-961 visitors daily throughout that time, which indicates a high level of engagement with the latest developments as the COVID pandemic evolved.

## DISCUSSION

We have found that an online, collaborative Q&A platform has the ability to combine both topical, curated expertise that initial point-of-care resources provide and dynamic interaction that social media platforms provide. This combination allows rapidly mobilized experts to disseminate information across the nation with regard to ongoing, preexisting oncology challenges and the evolving nature of the COVID-19 pandemic. Our results show that thousands of oncologists across the country have reviewed this

information that has covered a broad scope of the unique challenges the pandemic brings to oncology patients.

This approach has inherent strengths. The ability to interact directly with experts builds a sense of community. This may help to influence behavior because social networks are instrumental in disseminating experiential knowledge that may not be covered by guidelines.<sup>7-9</sup> Experiential learning is instrumental in dealing with uncertainty and a component of therapies to deal with anxiety.<sup>10</sup> Patients already learn a tremendous amount about their illnesses from experiential learning. Participants in cancer support groups benefit from sharing experiential learning to ease the burden of anxiety and stress that comes with uncertainty.<sup>11,12</sup> Oncologists who will be facing this pandemic may learn from adopting a similar learning model. While readers may not undergo the four stages of the experiential cycle as described by Kolb,<sup>13</sup> experts at sites affected early by the pandemic may publish their observations and reflections about their immediate experiences to help other practitioners to prepare. The experts, in effect, serve as opinion leaders, which may successfully change how physicians practice medicine.<sup>14</sup> Indeed, there is randomized trial evidence that has shown that opinion leaders may help practitioners to adopt new practices, which is critical during a rapidly changing pandemic.<sup>15-17</sup>

There are weaknesses with relying on expert-guided dialogue. Those identified as opinion leaders may not be durable over time, requiring frequent reassessment of the strength of our pool of experts.<sup>18</sup> Users may comment that they agree with or find answers helpful on each thread to give instant feedback. However, we do not have feedback on whether users' practices have changed as a result of perusing the various Q&A threads. Future research may include physician self-reports of their practice patterns before and after reviewing discussions on the platform. There remains a lack of high-quality evidence to guide decision making because the prevalence of cancer in patients with COVID-19 is minimal in the currently published prospective and retrospective cohorts. Experts may help to guide oncologists nationwide on how to practice but with trepidation about the strength of their recommendations.

In conclusion, a persistently evolving pandemic brings many challenges to practicing oncology. Novel, dynamic, expert-driven social media platforms may help to provide guidance to frontline oncologists across the country. The platform's effectiveness lies in its emphasis on experiential learning by opinion leaders to discuss challenging scenarios that many oncologists are now facing.

## AFFILIATIONS

<sup>1</sup>Jonsson Comprehensive Cancer Center, Geffen School of Medicine at UCLA, Los Angeles, CA

<sup>2</sup>Department of Radiation Oncology, University of Utah Huntsman Cancer Hospital, Salt Lake City, UT

<sup>3</sup>Division of Gynecologic Oncology, Stephenson Cancer Center, University of Oklahoma Health Science Center, Oklahoma City, OK

<sup>4</sup>Division of Pediatric Oncology, St Jude Children's Research Hospital, Memphis, TN

<sup>5</sup>Division of Pediatric Hematology/Oncology, MedStar Georgetown University Hospital, Washington, DC

<sup>6</sup>theMednet.org, New York, NY

<sup>7</sup>Department of Radiation Oncology, Yale School of Medicine, Trumbull, CT

## CORRESPONDING AUTHOR

Anthony Bejjani, MD, Jonsson Comprehensive Cancer Center, Geffen School of Medicine at UCLA, 10833 Le Conte Ave, 11-934 Factor Bldg, Los Angeles, CA 90095; e-mail: abejjani@mednet.ucla.edu.

## AUTHOR CONTRIBUTIONS

**Conception and design:** Anthony Bejjani, Nadine Housri

**Collection and assembly of data:** Anthony Bejjani, Lindsay Burt, Samir Housri, Nadine Housri

**Data analysis and interpretation:** Anthony Bejjani, Christina Washington, Michael Terao, Nadine Housri

**Manuscript writing:** All authors

**Final approval of manuscript:** All authors

**Accountable for all aspects of the work:** All authors

## AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The following represents disclosure information provided by authors of this manuscript. All relationships are considered compensated unless otherwise noted. Relationships are self-held unless noted. I = Immediate Family Member, Inst = My Institution. Relationships may not relate to the subject matter of this manuscript. For more information about ASCO's conflict of interest policy, please refer to [www.asco.org/rwc](http://www.asco.org/rwc) or [ascopubs.org/cci/author-center](http://ascopubs.org/cci/author-center).

Open Payments is a public database containing information reported by companies about payments made to US-licensed physicians ([Open Payments](http://OpenPayments)).

**Lindsay Burt**

**Leadership:** theMednet.org

**Stock and Other Ownership Interests:** theMednet.org

**Samir Housri**

**Other Relationship:** theMednet.org

**Nadine Housri**

**Other Relationship:** theMednet.org

No other potential conflicts of interest were reported.

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