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COVID-19

Development of a Palliative Care Toolkit for the COVID-19 Pandemic

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Abstract

The Coronavirus disease 2019 (COVID-19) pandemic has led to high numbers of critically ill and dying patients in need of expert management of dyspnea, delirium, and serious illness communication. The rapid spread of severe acute respiratory syndrome-Coronavirus-2 creates surges of infected patients requiring hospitalization and puts palliative care programs at risk of being overwhelmed by patients, families, and clinicians seeking help. In response to this unprecedented need for palliative care, our program sought to create a collection of palliative care resources for nonpalliative care clinicians. A workgroup of interdisciplinary palliative care clinicians developed the Palliative Care Toolkit, consisting of a detailed chapter in a COVID-19 online resource, a mobile and desktop Web application, one-page guides, pocket cards, and communication skills training videos. The suite of resources provides expert and evidence-based guidance on symptom management including dyspnea, pain, and delirium, as well as on serious illness communication, including conversations about goals of care, code status, and end of life. We also created a nurse resource hotline staffed by palliative care nurse practitioners and virtual office hours staffed by a palliative care attending physician. Since its development, the Toolkit has helped us disseminate best practices to nonpalliative care clinicians delivering primary palliative care, allowing our team to focus on the highest-need consults and increasing acceptance of palliative care across hospital settings. J Pain Symptom Manage 2020;60:e22–e25. *© 2020 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Key Words

Palliative care, toolkit, COVID-19, pandemic, innovation, clinical service delivery

Introduction

'Palliative care can play a central role in a health-care institution's response to the Coronavirus disease 2019 (COVID-19) pandemic.[1] The high numbers of critically ill and dying patients create a sharp increase in the need for expert management of dyspnea, delirium, and serious illness conversations, in particular. With the rapid spread of COVID-19 driving surges of infected patients requiring hospitalization, the demand for palliative care consultation can accelerate quickly, putting programs at risk of becoming overwhelmed by the volume of patients, families, and referring teams in need of help.[2]

Aware of this possibility, our palliative care program at Dana-Farber Cancer Institute and Brigham and Women's Hospital (BWH) created a compendium of

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palliative care educational materials over six weeks that could serve as a resource to nonpalliative care clinicians caring for these patients. To build the primary palliative care skillset of these clinicians and to expand our reach, we organized these resources into a Palliative Care Toolkit that we made available to frontline clinicians caring for patients with palliative care needs during the pandemic.

Methods

First, we put together an interdisciplinary workgroup comprised of attendings, fellows, nurse practitioners, educators, and informaticians to create the Toolkit. Team members were assigned to work on particular subprojects, with ongoing collaboration and exchange of resources across the larger group. The workgroup met several times a week for several weeks and then weekly thereafter to monitor the progress of projects and strategize about next steps. We identified and followed several principles: 1) Tools should focus on the care of patients with COVID-19, although they may have wider applicability; 2) tools should be clear and concise and reflect palliative care best practices; 3) tools should be accessible to a wide variety of clinicians in a wide variety of settings; and 4) although tools may take different forms and formats, they should have internal consistency in content. As we created the Toolkit, we referenced materials at our institutions[3–5] as well as outside institutions, including materials from the Massachusetts General Hospital and VitalTalk.[6,7]

We started by writing a detailed palliative care chapter for covidprotocols.org, a comprehensive online resource created by the BWH Division of Pulmonary and Critical Care Medicine to disseminate best practices in treating patients with COVID-19. A subgroup of us subsequently distilled information from that chapter to create one-page palliative care summaries and pocket cards. We gave these to clinicians working in the Emergency Department, COVID intensive care units (ICUs), and COVID Hospital Medicine services and also adapted them for use by bedside nurses. Simultaneously, a separate subgroup built a Web application (Pallicovid.app) to host these resources online and to make them universally accessible by any mobile or desktop device. An additional subgroup scripted and filmed six short communication skills videos modeling techniques to use in goals of care conversations in the emergency department, ICU, and hospital medicine settings.

Once our resources were developed, we worked with the leadership of each collaborating clinical service to disseminate our tools by email communication and by posting to their online platforms for clinical resources. In addition, we realized that some clinicians would have questions not covered by the tools, no matter how comprehensive. To meet this need, we created two additional resources: 1) a 24/7 palliative care COVID nurse resource line covered by our nurse practitioners to advise bedside nurses, and 2) daily videoconference office hours staffed by one of our attending physicians available to hospital teams with palliative care management questions.

Results

The Toolkit, available at pallicovid.app, includes a collection of resources described in Table 1. Users can access links to the one-page summaries, pocket cards, covidprotocols.org, and the communication skills videos.

The combination of physical tools (pocket cards and one-page summaries), online tools (the palliative care section of covidprotocols.org and communications skills videos), real-time support tools (the 24/7 nurse resource line, daily palliative care office hours), and the Pallicovid app has been well received by referring teams. We are able to direct clinicians to these resources to answer straightforward questions, and as a result, we have been better able to focus on more complex consultations that require higher level palliative care expertise.

In response to the pandemic, we have also built new clinical programs aligned with the emergency department, ICU, and hospital medicine teams. As we connected with attendings, trainees, nursing leaders, and bedside nurses in those settings, we distributed information about the Toolkit and made the resources available to all. Doing so has strengthened our credibility as helpful partners in the crisis, even if we were not able to perform a consultation for every patient we were called to see.

We plan to continue to enhance the Toolkit, including adding a coaching option for referring teams needing more robust help with a particular case, but not a full consult. Meanwhile, we are finding that the current resources are being met with great enthusiasm. Covidprotocols.org had more than 660,000 page views between March 31, when the palliative care chapter went live, and May 4. Similarly, the pocket cards have been positively received; we ran out of the first order of 300 cards within two weeks. In addition, the Pallicovid app was accessed by over 2000 users between April 7 (its launch date) and May 4.

Discussion

The COVID-19 pandemic is providing surprising opportunities for creativity in the midst of chaos and hardship. Our group's experience creating the

Table 1
The DFCI/BWH Palliative Care Toolkit for the COVID-19 Pandemic

Tool	Description	How to Access
Pallicovid.app	Online progressive Web application that can be downloaded to a smartphone or desktop with links to the one-page summaries, pocket cards, covidprotocols.org, communication videos, and institution-specific resources	Online at pallicovid.app, also available as mobile phone or desktop applications
Palliative Care section of CovidProtocols.org	Online resource with guidelines for managing anxiety, dyspnea, pain, nausea/vomiting, constipation, care of the imminently dying patient, and communication skills, also with links to institution-specific resources	Online at Covidprotocols.org, link from pallicovid.app
One-page summaries	2 one-page guides for managing dyspnea, pain, delirium, constipation, and goals of care conversations	Posted in clinician workrooms; online at covidprotocols.org and pallicovid.app
Pocket cards	Concise guidelines from one-page summaries	Distributed by hand, covidprotocols.org, pallicovid.app
Communication skills videos	Six short videos specific to different clinical settings (3 for the ICU, 2 for hospital medicine, 1 for the ED) with guidelines on how to discuss serious news, goals of care, and code status.	Links from covidprotocols.org, pallicovid.app
COVID nurse resource line	Pager covered 24/7 by palliative care nurse practitioners for nursing advice on communication and symptom management for patients with COVID-19 and their families	BWH pager
Palliative care office hours	One-hour availability offered daily by a palliative care attending for informal consultation, curbsides	Zoom line

BWH = Brigham and Women's Hospital; COVID-19 = Coronavirus disease 2019; DFCI = Dana-Farber Cancer Institute; ED = emergency department; ICU = intensive care unit.

Palliative Care Toolkit is one such example, allowing us to pull our varied skills and interests together to rapidly create a suite of helpful resources in anticipation of a surge of seriously ill patients at our hospital. We will continue to track the use of the various resources over time and ask for feedback from referring clinicians to determine which ones are proving especially useful. We will also adapt different parts of the Toolkit for different clinical settings where appropriate; the communication skills videos are one example of this kind of specialization.

We anticipate that many clinical and educational strategies developed during the pandemic will continue to be useful long afterward. In creating the Toolkit, our group is discovering new opportunities to expand our program's reach and help referring teams without the need to perform a full consultation in response to every request. We are still experimenting with which requests for consults can be adequately addressed by pointing to the resources in the Toolkit and which requests should result in full consults, and we are in the process of creating algorithms to standardize our triage practice. But we are embracing the possibilities afforded by having an array of specific useful tools to put in the hands of our colleagues to help them care for their patients, especially with real-time backup from the nursing resource line and daily office hours. Our early experience demonstrates that we can provide a high level of support and availability while using our human resources far more efficiently than we have in the past.

A more ambitious hope is that the Toolkit will help strengthen the integration of our palliative care program within our hospital. While our team is well supported by the hospital, in the minds of some of our colleagues, our specialty still remains inextricably linked to end-of-life care. As we now help teams care for patients with COVID-19 who sometimes recover from critical illness, it seems possible that the pandemic is creating an opening for real culture change in how palliative care is viewed at our institution. The Palliative Care Toolkit is one tangible demonstration of our intention to be available to teams caring for seriously ill patients regardless of life expectancy or code status.

The resources included in the Dana-Farber Cancer Institute/BWH Palliative Care Toolkit can serve as a useful example for other programs facing challenges similar to our own. These tools can be adapted to a wide variety of clinical settings that are anticipating or experiencing higher than usual palliative care needs during the pandemic. We hope other programs find—as we have found—the Toolkit helpful to disseminate best practices in communication and symptom management, allowing palliative care specialists to focus on the highest need consults and increasing acceptance of palliative care across hospital settings.

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References

1. Etkind SN, Bone AE, Lovell N, et al. The role and response of palliative care and hospice services in epidemics and pandemics: a rapid review to inform practice during the COVID-19 pandemic. [Epub ahead of print]. J Pain Symptom Manage 2020 https://doi.org/10.1016/j.jpainsymman.2020.03.029.

2. Powell VD, Silveira MJ. What should palliative care's response Be to the COVID-19 pandemic? [Epub ahead of print]. J Pain Symptom Manage 2020 https://doi.org/10.1016/j.jpainsymman.2020.03.013.

3. Abrahm JL. A Physician's Guide to Pain and Symptom Management in Cancer Patients, 3rd ed. Baltimore: Johns Hopkins University Press, 2014.

4. Kematick BS, Phantumvanit V, Lynch M, et al. Pain Management Tables & Guidelines. Dana-Farber Cancer Institute & Brigham and Women's Hospital. 2017. Available from pinkbook.dfci.org. Accessed May 4, 2020.

5. Suliman I, Xiang E, McBride P, et al. Adult Guidelines for Assessment and Management of Nausea and Vomiting. Dana-Farber Cancer Institute & Brigham and Women's Hospital. 2018. Available from pinkbook.dfci.org. Accessed May 4, 2020.

6. Back AL. COVID-Ready Communication Skills: A Playbook of VitalTalk Tips. Seattle: VitalTalk, 2020.

7. Childers JW, Back AL, Tulsky JA, Arnold RM. REMAP: a framework for goals of care conversations. J Oncol Pract 2017;13:e844–e850.