



A Review of Web-Based COVID-19 Resources for Palliative Care Clinicians, Patients, and Their Caregivers

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Palliative and end-of-life care has been pushed to the forefront of medical care during the pandemic caused by the coronavirus-2019 (COVID-19). Palliative care organizations have responded to the growing demand for the rapid dissemination of research, clinical guidance, and instructions for care to clinicians, patients with COVID-19, and their caregivers by creating COVID-19 resource Web pages. Here, end users can access resources that can be updated in real time. These Web pages, however, can be variable in what resources they offer and for whom they are designed for (clinicians, patients, caregivers). Therefore, this project was conducted to consolidate these resources via summary tables of specific contents available through each Web page grouped by palliative care domains (eg, care discussion and planning, communication, symptom management, care access) and to identify the target audience. This environmental scan was conducted by compiling a comprehensive list of COVID-19 resource Web pages of palliative care organizations generated by reviewing previously

published research studies and consulting with palliative care research experts. Snowballing techniques were used to identify resource Web pages not captured in the initial scan. Two reviewers independently evaluated eligible Web pages for content via a form developed for the study, and Cohen κ statistic was calculated to ensure interrater reliability. The final κ statistic was 0.76. Of the 24 websites screened, 15 websites met our eligibility criteria. Among the eligible resource Web pages, most ($n = 12, 80\%$) had specific target audiences and care settings, whereas the rest presented information targeted to all audiences. Although 11 Web pages offered resources that addressed all 4 domains, only 1 Web page conveyed all 12 subdomains. We recommend the use of this guide to all frontline clinicians who require guidance in clinically managing patients with COVID-19 receiving palliative care and/or end-of-life care.

KEY WORDS

advance care planning, COVID-19, online resources, palliative care

Since the identification of the novel coronavirus disease (COVID-19) in December 2019, the number of confirmed COVID-19 cases has grown exponentially, reaching more than 76.9 million global cases to date (December 2020). The United States has the highest absolute number of cases, accounting for nearly a quarter of global cases.¹ The situation has forced many to adapt to a *new normal*, and the US health care system was not an exception. Patients in ambulatory and/or outpatient settings experienced profound disruptions in care, and several hospitals were forced to care for an increasing volume of COVID-19–positive patients with dwindling resources such as personal protective equipment,^{2–4} health care personnel,⁵ and an overall decreased capacity to accommodate the increasing COVID-19 load.

With profound changes in infrastructure, which are deemed necessary to minimize viral transmission, many clinicians and interdisciplinary care teams had to rapidly adapt and

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implement the most up-to-date evidence regarding risk stratification and evidence-based management of patients with COVID-19 to clinical practice. Many were encouraged to think of outside-the-box solutions to conduct ongoing assessments, perform essential duties for their patients, and, most importantly, stay connected to those who are most vulnerable. This resulted in the redesigning of existing care models, from face-to-face to telehealth modalities,⁶⁻⁸ and application of interdisciplinary team-based care approaches.⁹

Amidst the pandemic, 1 particular specialty that has experienced a surge in demand is palliative and end-of-life (EoL) care.^{10,11} A growing body of evidence suggests that patients living with comorbidities,¹²⁻¹⁶ frailties,¹⁷⁻¹⁹ and terminal illnesses have a greater risk of severe COVID-19 infection and are, consequently, at an increased risk for poor patient-reported health outcomes such as high symptom burden²⁰⁻²³ and poor quality of life.²⁴⁻²⁶ Palliative care (PC), an approach that aims to improve quality of life among patients and families experiencing life-threatening illnesses through early identification, assessment, and treatment of pain and other related symptoms, is undoubtedly being recognized as a key player in the management of patients and their caregivers impacted by COVID-19.

To adapt to the PC needs of particular patients in the midst of an increased flux of seriously ill patients, several research articles have been recently published to disseminate evidence-based recommendations and guidance for PC and hospice services during the pandemic,²¹ international consensus-based guidelines concerning remote communication,²⁷⁻²⁹ advance care planning (ACP),³⁰⁻³² symptom management and holistic approach in PC,³²⁻³⁴ and a synthesis of national and international guidance documents regarding PC in nursing homes (NHs).^{35,36} Although peer-reviewed literature and resources available in scientific journals should be adequate for clinicians, patients receiving PC, and their families, they carry certain drawbacks. These resources can be time-consuming to find and rapidly go out-of-date given the unprecedented rate of publishing research related to COVID-19,^{37,38} and clinicians and families may frequently encounter paywalls when accessing much needed information. This presents a significant problem as clinicians/patients and families need to be able to rapidly access up-to-date information that can be implemented in real time to ensure that patients are continually receiving high-quality care and that clinicians and families have resources to turn to if they have questions about caregiving or PC-specific COVID-19-related questions.

To address this issue, national and international PC agencies have created a suite of COVID-19 resource Web pages that can be easily accessed on the Internet. However, there is significant heterogeneity for whom resources are being offered to and specific resources offered by each Web page. Therefore, our objective for this article was 3-fold: (1) to provide a list of PC organizations/addresses

that offer web-based COVID-19 resources, (2) to identify whom the information is designed for (ie, the intended end users) and in which care setting (ie, target audience and care settings, when applicable), and (3) to visually summarize specific contents available through each Web page by domain (ie, care discussion and planning, communication, symptom management, care access).

METHOD

Online resources, freely available to end users, were used. A protocol a priori for identification and inclusion of online PC resources that included COVID-19 information was developed. This involved first identifying and compiling a comprehensive list of Web pages of PC/EoL care organizations generated by reviewing previously published research studies³⁹⁻⁴² and by consulting with PC research experts. Snowballing techniques were used to identify resource Web pages not captured in our initial scan. The final list of PC/EoL Web pages was subsequently screened for the inclusion of COVID-19-related resources (yes/no). When available and deemed potentially eligible to be included, authors investigated further to extract relevant data (eg, target audience, content covered). Inclusion criteria were as follows: PC websites that were free of charge, accessible, and relevant to clinicians, and/or patients receiving PC and their families. In the case where the Web page offered free information along with a “members-only” section, authors only extracted content that was accessible without fees. This was done to ensure that resources presented in this article were readily available to all end users.

A standardized data collection instrument was composed using Qualtrics, a web-based survey system, to extract relevant information and fulfill project objectives (full information available upon request). This data collection instrument contained a total of 17 questions (see Box 1 for specific information extracted and organized per project objectives).

Box 1. Data Extracted by Instrument per Project Objectives

Objective 1. *Provide a list of PC organizations and web addresses (2 items)*

- Name of PC organization
- Web address

Objective 2. *Identify target care settings and audiences (2 items)*

- Target organization
 - o Assisted living, long-term care, homecare
 - o Inpatient, nursing home, outpatient
- Target audience
 - o Clinician, patients receiving palliative care, families (eg, family caregiver)

(continues)

Objective 3. Identify specific contents available on websites (13 items)

- Care discussion and planning domain

Box 1. Data Extracted by Instrument per Project Objectives, Continued

- o Advance care planning in COVID-19, goals of care
- o Treatment preference, medical care priorities
- Communication domain
 - o Family meetings, care team meetings, sharing last words/legacies, preparing for end of life
- Symptom management domain
 - o Dyspnea/breathlessness, pain, and other related symptoms
- Access to care domain
 - o Telehealth visits, virtual office hour sessions, webinars, and podcasts

TABLE 1 Audited Organizations and Its COVID-19 Resource Web Addresses

Organization Name	Website (COVID-19–Specific Address)
American Academy of Hospice and Palliative Medicine	http://aahpm.org/education/covid-19-resources
Center to Advance Palliative Care	https://www.capc.org/covid-19/
End-of-Life Nursing Education Consortium	http://aacnursing.org/ELNEC/COVID-19
Get Palliative Care	https://getpalliativecare.org/whatis/disease-types/covid-19-and-palliative-care/covid-19-tips/
Hospice and Palliative Nurses Association	https://advancingexpertcare.org/covid-19-resources
International Association of Hospice and Palliative Care	http://globalpalliativecare.org/covid-19/
International Children's Palliative Care Network	http://www.icpcn.org/coronavirus-and-childrens-palliative-care/
National Association for Home Care & Hospice	https://www.nahc.org/resources-services/coronavirus-resources/
National Coalition for Hospice and Palliative Care	https://www.nationalcoalitionhpc.org/covid19/
National Hospice and Palliative Care Organization	https://www.nhpc.org/coronavirus/
National POLST	https://polst.org/covid/
Physician Assistants in Hospice and Palliative Medicine	https://www.pahpm.org/page-18492
Respecting Choices	https://respectingchoices.org/covid-19-resources/
Supportive Care Coalition	https://supportivecarecoalition.org/resources-blog/2020/3/19/covid-19-resources
VitalTalk	https://www.vitaltalk.org/covid-resources/
<i>Abbreviation: POLST, Physician Orders for Life-Sustaining Treatments.</i>	

Data Collection

Data collection occurred in September 2020. Two authors (A.T. and V.K.) independently extracted relevant information from all eligible websites. These 2 data sets of collected information were then reviewed by the team, and any discrepancies were resolved through weekly virtual team meetings. Cohen κ statistic was used to ensure that adequate interrater reliability was achieved.⁴³ The final κ statistic was excellent ($\kappa = 0.76$), and the final version of extracted data was collated in table format and shared among additional authors (J.S. and S.C.) to ensure data had been accurately captured.

RESULTS

List of PC Organizations and Web Page Addresses

A total of 15 PC/EoL Web pages met our criteria and were included in this article. Names and web addresses of the COVID-19 resource pages are presented in Table 1. In summary, 13 Web pages were national-level PC/hospice care organizations, and 2 were international. Although open and accessible to all disciplines, 2 national-level organizations were nursing-specific (ie, End-of-Life Nursing Education Consortium, Hospice and Palliative Nursing Association [HPNA]) and 1 was physician assistant-specific (Physician Assistant in Hospice and Palliative Medicine). Both national Physician Orders for Life-Sustaining Treatments and Respecting Choices were organizations that promote ACP for patients and families living with life-limiting illnesses (ie, Physician Orders for Life-Sustaining Treatments offers an actionable, portable ACP tool; Respecting Choices offers EoL decision aids). VitalTalk is a web-based organization that aims to bring communication skills and competencies to clinicians caring for individuals living with serious illnesses. On its Web page, clinicians can access various learning tools

(eg, conversation scripts, videos, online courses) designed to provide training and expertise in how to navigate conversations when caring for seriously ill patients.



Target Care Settings and Audiences

For this objective, we ascertained from organization websites their target care settings (eg, inpatient, outpatient, assisted living, homecare) and audience (clinician, patient, family). Authors specifically looked for the “care-specific tab” on each COVID-19 resource Web page to make it easier for end users to sift through information pertaining to the question that the end user is trying to answer and to reduce overextrapolation of the intended audience and care setting on behalf of the organization. By being explicit in this manner, the authors were able to create an easy-to-use visual map that aids in identifying where pertinent resources can be found for end users (see Table 2).

Most of the included Web pages (n = 12, 80%) specified their intended audience as well as care settings. Two organizations, Center to Advance Palliative Care and Respecting Choices, offered comprehensive COVID-19 resources that were intended for all audiences and applicable to any care setting. The End-of-Life Nursing Education Consortium and HPNA offered clinician-focused information that could be used in all care settings. For instance, HPNA offered direct links to printable PDF files, which included nursing assessment, pharmacological and nonpharmacological management, and discussion points for patient/family education. Similarly, the American Academy of Hospice and Palliative

Medicine offered resources pertinent to inpatient/outpatient, NH, and long-term care settings. COVID-19–related information offered on the American Academy of Hospice and Palliative Medicine Web page was applicable to a broader audience including clinicians, physicians, educators, and even clinical researchers.

Family members and informal caregivers of patients receiving PC services in a homecare setting and/or inpatient hospice setting can locate additional resources through the National Association for Home Care and Hospice website. Families of pediatric patients receiving PC services in an inpatient and/or homecare setting can access COVID-19 resources through the International Children's Palliative Care Network.

Identification of Specific Contents Available on Each Resource Page

Table 3 provides a visual map of resources presented in each organizational Web page that clinicians, patients, and families can access. Information extracted during this process was classified into 4 key user-friendly domains: (1) care discussion and planning, (2) communication, (3) symptom management, and (4) access to care. When a clinician needs guidance, or a family caregiver is seeking further information on ACP and making choices on goals of

TABLE 2 Target Audience/Care Setting–Specific Tab for COVID-19 Resource Provided by Organization

Care Setting–Specific Tab	Inpatient	Outpatient	Nursing Home/LTC	Homecare
Clinician, patient, family	VitalTalk			
	CAPC			
	Respecting Choices			
			IAHPC	
	NHPCO			
	NAHC			NAHC
Clinician only	AAHPM			
	ELNEC			
Clinician, family			HPNA	
Clinician, patient	National POLST			
Patient, family	Get Palliative Care			
	ICPCN			ICPCN

Abbreviation: AAHPM, American Academy of Hospice and Palliative Medicine; CAPC, Center to Advance Palliative Care; ELNEC, End-of-Life Nursing Education Consortium; HPNA, Hospice and Palliative Nurses Association; IAHPC, International Association of Hospice and Palliative Care; ICPCN, International Children's Palliative Care Network; LTC, long-term care; NAHC, National Association for Home Care & Hospice; POLST, Physician Orders for Life-Sustaining Treatments.



TABLE 3 COVID-19 Resources Available per Domain and Organization

	Care Discussion and Planning Domain				Communication Domain			Symptom Management Domain			Access to Care Domain		
	ACP	Goals of Care	Treatment Preferences	Medical Care Priorities	Care Team Meetings	Family Meetings	Sharing Last Words/Legacies	Breathlessness/Dyspnea	Pain/Other Symptoms	Telehealth	Virtual Office Hours	Webinars/Podcasts	
AAHPM	—	—	Yes ^a	—	—	Yes ^a	—	—	Yes ^a	Yes ^a	—	—	
CAPC	Yes ^b	Yes ^b	Yes ^b	Yes ^c	Yes ^c	Yes ^a	Yes ^b	Yes ^c	Yes ^a	Yes ^a	Yes ^b	Yes ^b	
ELNEC	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes	—	Yes ^c	Yes ^c	Yes ^c	—	Yes ^a	
Get Palliative Care	—	—	—	—	—	Yes ^a	—	—	Yes ^a	Yes ^c	—	—	
HPNA	Yes ^a	—	Yes ^b	—	Yes ^b	Yes ^a	—	Yes ^b	Yes ^a	Yes ^a	Yes ^b	Yes ^b	
IAHPC	—	Yes ^a	Yes ^b	—	—	Yes ^a	—	Yes ^b	Yes ^a	Yes ^a	—	Yes ^b	
ICPCN	—	—	—	—	—	—	—	Yes ^c	Yes ^b	Yes ^b	—	Yes ^b	
NAHC	—	—	—	—	—	—	—	—	—	Yes ^a	—	Yes ^b	
NCHPC	—	—	Yes ^a	—	—	Yes ^a	Yes ^a	Yes ^a	Yes ^a	Yes ^a	Yes ^a	—	
NHPCO	Yes ^a	Yes ^a	—	Yes ^a	—	—	—	—	Yes ^a	Yes ^a	—	Yes ^a	
National POLST	Yes ^c	Yes ^a	Yes ^b	—	—	Yes ^a	Yes ^a	Yes ^a	Yes ^b	Yes ^b	—	Yes ^a	
PAHPM	—	—	Yes ^a	—	Yes ^a	Yes ^a	Yes ^a	Yes ^a	Yes ^a	Yes ^a	—	Yes ^c	
Respecting Choices	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes ^b	Yes ^a	—	Yes ^a	Yes ^a	—	Yes ^a	
Supportive Care Coalition	Yes ^b	Yes ^b	—	—	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes ^c	Yes ^c	—	Yes ^a	
VitalTalk	Yes ^c	Yes ^c	—	—	Yes ^a	Yes ^a	Yes ^a	Yes ^c	Yes ^a	Yes ^c	—	Yes ^c	

Abbreviations: AAHPM, American Academy of Hospice and Palliative Medicine; ACP, advance care planning; CAPC, Center to Advance Palliative Care; CPR, cardiopulmonary resuscitation; EoL, end of life; GoL, goals of care; ELNEC, End-of-Life Nursing Education Consortium; HPNA, Hospice and Palliative Nurses Association; IAHPC, International Association of Hospice and Palliative Care; ICPCN, International Children's Palliative Care Network; NAHC, National Association for Home Care & Hospice; NHPCO: National Hospice and Palliative Care Organization; NCHPC: National Coalition for hospice and Palliative Care; POLST, Physician Orders for Life-Sustaining Treatment.
^aInformation accessible through outside link or via other websites.
^bInformation is offered through own website and offers outside link/resource page.
^cInformation offered via own website.



care, they can look under the Care Discussion and Planning domain. Similarly, when caring for patient(s) exhibiting breathlessness, resources can be found under the Symptom Management domain. It is noteworthy that guidance for telehealth was made available on all Web pages. In addition, if a clinician wishes to seek further information that may have not been covered by organizational Web page(s), they can look under the Access to Care domain, specifically at virtual office hours, and participate in virtual live sessions to ask questions and obtain much needed information.

CONCLUSION

This article provides, to our knowledge, the first summary of content on COVID-19–related Web pages created by PC/EoL organizations that are readily accessible to clinicians, PC recipients, and their families. Although previous articles have examined web-based resources that are useful in health care delivery, many were limited to a specific population (by disease type) and not specific to the PC field.^{44–46} Two findings from this project bear further discussion.

First, only 1 website was pediatric-specific. Although a large number of pediatric PC programs exist that offer up-to-date COVID-19–related resources and virtual visits (eg, Boston Children's Hospital; www.childrenshospital.org/conditions-and-treatments/conditions/c/coronavirus), they are often institution-specific, geared toward individuals who receive care at the institution, and/or vary greatly in terms of contents that they contain. Recently, this gap was recognized by the National Coalition for Hospice and Palliative Care (NCHPC).⁴⁷ With the increased demands and need for a pediatric-specific national task force, NCHPC announced a newly formed Task Force (group of PC experts from different disciplines). The NCHPC shared the vision to create a platform where all patients, families, and caregivers who need it will have access to quality hospice care and PC.⁴⁷

Second, it was observed that several Web pages linked external PC/EoL resources to their Web pages. For example, several Web pages provided a link to VitalTalk, a platform that provides communication aids designed to provide training on how to navigate conversations when caring for seriously ill patients. Similarly, several websites provided links to Center to Advance Palliative Care's COVID toolkit, allowing for more rapid identification of COVID-19 resources. This approach of sharing resources among partner organizations prevents the duplication of efforts and allows for consistency in the dissemination of research and evidence-based clinical practice.

LIMITATION

This project is a cross-sectional study, which provides a snapshot of resources at the time of data collection. However, given the dynamic and rapidly evolving situation

coupled with the unprecedented rate of publishing, resources can change quickly, making it impractical to provide a comprehensive guide of available resources in real time. By compiling a list of Web pages of both national and international PC/EoL organizations, we hope that the process of rapidly locating the appropriate web resources can be facilitated. It is also noteworthy that no non-PC-focused resources were identified in this study. This may limit the audience of this article to those who are already familiar with PC.

RECOMMENDATIONS

We recommend the use of this guide to all frontline clinicians who need guidance in clinically managing PC patients and clinicians integrating primary/basic PC into care of their patients. We also suggest that the resources included in this guide can help patients receiving PC and their caregivers as well; however, the availability of these resources must be communicated clearly by a clinician on how to access a particular resource. We recommend that, as resources are rapidly being introduced into the worldwide web by PC/EoL organizations, resources that are sparsely covered across organizations be targeted such as health care priorities, care team meetings, sharing last words/legacies, and virtual office hours.

References

1. Johns Hopkins Coronavirus Resource Center. Johns Hopkins coronavirus resource center. <https://coronavirus.jhu.edu/map.html>. Accessed September 11, 2020.
2. Rowan NJ, Laffey JG. Challenges and solutions for addressing critical shortage of supply chain for personal and protective equipment (PPE) arising from coronavirus disease (COVID19) pandemic—case study from the Republic of Ireland. *Sci Total Environ*. 2020;725:138532.
3. Cook TM. Personal protective equipment during the coronavirus disease (COVID) 2019 pandemic—a narrative review. *Anaesthesia*. 2020;75(7):920-927.
4. Shrivastava SR, Shrivastava PS. Ensuring optimal utilization of personal protective equipment in the coronavirus disease-2019 pandemic. *Germes*. 2020;10(2):120-122.
5. McGarry BE, Grabowski DC, Barnett ML. Severe staffing and personal protective equipment shortages faced by nursing homes during the COVID-19 pandemic. *Health Aff (Millwood)*. 2020;39:1812-1821.
6. Smith AC, Thomas E, Snoswell CL, et al. Telehealth for global emergencies: implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare*. 2020;26(5):309-313.
7. Lopez-Villegas A, Maroto-Martin S, Baena-Lopez MA, et al. Telemedicine in times of the pandemic produced by COVID-19: implementation of a teleconsultation protocol in a hospital emergency department. *Healthcare (Basel)*. 2020;8(4):357.
8. Malhotra N, Sakthivel P, Gupta N, Nischal N, Ish P. Telemedicine: a new normal in COVID era; perspective from a developing nation. *Postgrad Med J*. 2020;postgradmedj-2020-138742. doi: 10.1136/postgradmedj-2020-138742. Epub ahead of print. PMID: 32972962.
9. Urbach DR, Martin D. Confronting the COVID-19 surgery crisis: time for transformational change. *CMAJ*. 2020;192(21):E585-E586.



10. Radbruch L, Knaut FM, de Lima L, de Joncheere C, Bhadelia A. The key role of palliative care in response to the COVID-19 tsunami of suffering. *Lancet*. 2020;395(10235):1467-1469.
11. Ferrell BR, Handzo G, Picchi T, Puchalski C, Rosa WE. The urgency of spiritual care: COVID-19 and the critical need for whole-person palliation. *J Pain Symptom Manage*. 2020;60(3):e7-e11.
12. Sanyaolu A, Okorie C, Marinkovic A, et al. Comorbidity and its impact on patients with COVID-19. *SN Compr Clin Med*. 2020;2(8):1069-1076.
13. Iaccarino G, Grassi G, Borghi C, Ferri C, Salvetti M, Volpe M. Age and multimorbidity predict death among COVID-19 patients: results of the SARS-RAS study of the Italian Society of Hypertension. *Hypertension*. 2020;76(2):366-372.
14. Guan WJ, Liang WH, Zhao Y, et al. Comorbidity and its impact on 1590 patients with COVID-19 in China: a nationwide analysis. *Eur Respir J*. 2020;55(5):2000547.
15. Zhou Y, Yang Q, Chi J, et al. Comorbidities and the risk of severe or fatal outcomes associated with coronavirus disease 2019: a systematic review and meta-analysis. *Int J Infect Dis*. 2020;99:47-56.
16. Liu Y, Wu S, Qin M, Jiang W, Liu X. Prevalence of cardiovascular comorbidities in coronavirus disease 2019, severe acute respiratory syndrome, and Middle East respiratory syndrome: pooled analysis of published data. *J Am Heart Assoc*. 2020;9(17):e016812.
17. Patel U, Malik P, Usman MS, et al. Age-adjusted risk factors associated with mortality and mechanical ventilation utilization amongst COVID-19 hospitalizations—a systematic review and meta-analysis. *SN Compr Clin Med*. 2020;1-10. doi:10.1007/s42399-020-00476-w. Epub ahead of print. PMID:32904541; PMCID: PMC7456201.
18. Hägg S, Jylhävä J, Wang Y, et al. Age, frailty, and comorbidity as prognostic factors for short-term outcomes in patients with coronavirus disease 2019 in geriatric care. *J Am Med Dir Assoc*. 2020;21:1555-1559.e2.
19. Collins JT, Short R, Carter B, et al. The clinical frailty scale: estimating the prevalence of frailty in older patients hospitalised with COVID-19. The COPE study. *Geriatrics (Basel)*. 2020;5(3):58.
20. Lovell N, Maddocks M, Etkind SN, et al. Characteristics, symptom management, and outcomes of 101 patients with COVID-19 referred for hospital palliative care. *J Pain Symptom Manage*. 2020;60(1):e77-e81.
21. 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. *J Pain Symptom Manage*. 2020;60(1):e31-e40.
22. Fusi-Schmidhauser T, Preston NJ, Keller N, Gamondi C. Conservative management of COVID-19 patients—emergency palliative care in action. *J Pain Symptom Manage*. 2020;60(1):e27-e30.
23. Miaskowski C, Paul SM, Snowberg K, et al. Stress and symptom burden in oncology patients during the COVID-19 pandemic. *J Pain Symptom Manage*. 2020;60:e25-e34.
24. Nguyen HC, Nguyen MH, Do BN, et al. People with suspected COVID-19 symptoms were more likely depressed and had lower health-related quality of life: the potential benefit of health literacy. *J Clin Med*. 2020;9(4):965.
25. Ping W, Zheng J, Niu X, et al. Evaluation of health-related quality of life using EQ-5D in China during the COVID-19 pandemic. *PLoS One*. 2020;15(6):e0234850.
26. Helm EE, Kempinski KA, Galantino MLA. Effect of disrupted rehabilitation services on distress and quality of life in breast cancer survivors during the COVID-19 pandemic. *Rehabil Oncol*. 2020;38(4).
27. Wahezi SE, Duarte RA, Yerra S, et al. Telemedicine during COVID-19 and beyond: a practical guide and best practices multidisciplinary approach for the orthopedic and neurologic pain physical examination. *Pain Physician*. 2020;23(4S):S205-S238.
28. Grimes CL, Balk EM, Dieter AA, et al. Guidance for gynecologists utilizing telemedicine during COVID-19 pandemic based on expert consensus and rapid literature reviews. *Int J Gynecol Obstet*. 2020;150(3):288-298.
29. Shanthanna H, Strand NH, Provenzano DA, et al. Caring for patients with pain during the COVID-19 pandemic: consensus recommendations from an international expert panel. *Anaesthesia*. 2020;75(7):935-944.
30. Curtis JR, Kross EK, Stapleton RD. The importance of addressing advance care planning and decisions about do-not-resuscitate orders during novel coronavirus 2019 (COVID-19). *JAMA*. 2020;323(18):1771-1772.
31. Block BL, Smith AK, Sudore RL. During COVID-19, outpatient advance care planning is imperative: we need all hands on deck. *J Am Geriatr Soc*. 2020;68(7):1395-1397.
32. Janssen DJA, Ekström M, Currow DC, et al. COVID-19: guidance on palliative care from a European Respiratory Society international task force. *Eur Respir J*. 2020;56(3):2002583.
33. Weinkove R, McQuilten ZK, Adler J, et al. Managing haematology and oncology patients during the COVID-19 pandemic: interim consensus guidance. *Med J Aust*. 2020;212(10):481-489.
34. Rodrigues M. COVID-19 and cancers. Summary of French guidelines from medical societies and their evolution. *Bull Cancer*. 2020;107(5):521-523.
35. Gilissen J, Pivodic L, Unroe KT, Van den Block L. International COVID-19 palliative care guidance for nursing homes leaves key themes unaddressed. *J Pain Symptom Manage*. 2020;60(2):e56-e69.
36. Kunz R, Minder M. COVID-19 pandemic: palliative care for elderly and frail patients at home and in residential and nursing homes. *Swiss Med Wkly*. 2020;150:w20235.
37. Callaway E. Will the pandemic permanently alter scientific publishing? *Nature*. 2020;582(7811):167-168.
38. Fraser N, Brierley L, Dey G, Polka JK, Pálffy M, Coates JA. Preprinting a pandemic: the role of preprints in the COVID-19 pandemic. *bioRxiv*. 2020. <https://doi.org/10.1101/2020.05.22.111294>. Accessed February 9, 2021.
39. Rosa WE, Gray TF, Chow K, et al. Recommendations to leverage the palliative nursing role during COVID-19 and future public health crises. *J Hosp Palliat Nurs*. 2020;22(4):260-269.
40. Jayasinghe R, Ranasinghe S, Jayarajah U, Seneviratne S. Quality of online information for the general public on COVID-19. *Patient Educ Couns*. 2020;103:2594-2597.
41. Borasio GD, Gamondi C, Obrist M, Jox R, For the Covid-Task Force of Palliative Ch. COVID-19: decision making and palliative care. *Swiss Med Wkly*. 2020;150:w20233.
42. Back A, Tulskey JA, Arnold RM. Communication skills in the age of COVID-19. *Ann Intern Med*. 2020;172(11):759-760.
43. Cohen J. A coefficient of agreement for nominal scales. *Educ Psychol Meas*. 1960;20(1):37-46.
44. Weller D. Cancer diagnosis and treatment in the COVID-19 era. *Eur J Cancer Care (Engl)*. 2020;29(3):e13265.
45. Peeters M, van Dam P, Rasschaert MA, et al. Prescreening for COVID-19 in patients receiving cancer treatment using a patient-reported outcome platform. *ESMO Open*. 2020;5(3):e000817.
46. Bouffet E, Challinor J, Sullivan M, Biondi A, Rodriguez-Galindo C, Pritchard-Jones K. Early advice on managing children with cancer during the COVID-19 pandemic and a call for sharing experiences. *Pediatr Blood Cancer*. 2020;67(7):e28327.
47. National Coalition for Hospice & Palliative Care. Pediatric palliative care task force members 2020-2022. <https://www.nationalcoalitionhpc.org/ppctaskforcemembers/>. Accessed July 23, 2020.