JOURNAL OF PALLIATIVE MEDICINE
Volume 22, Number 8, 2019

DOI: 10.1089/jpm.2019.0278

Palliative Care Specialists Series*

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Top Ten Tips Palliative Care Clinicians Should Know About Telepalliative Care

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Abstract

The field of telehealth is rapidly growing and evolving across medical specialties and health care settings. While additional data are needed, telepalliative care (the application of telehealth technologies to palliative care) may help address important challenges inherent to our specialty, such as geography and clinician staffing; the burden of traveling to brick-and-mortar clinics for patients who are symptomatic and/or functionally limited; and the timely assessment and management of symptoms. Telepalliative care can take many forms, including, but not limited to, video visits between clinicians and patients, smartphone applications to promote caregiver well-being, and remote patient symptom-monitoring programs. This article, created by experts in telehealth and palliative care, provides a review of the current evidence for telepalliative care and potential applications and practical tips for using the technology.

Keywords: innovation; technology; telehealth; telemedicine; telepalliative care; video visits

Introduction

As clinical care moves away from the hospital and seeks to become more person-centered, providers, practices, and health systems are testing new strategies to care for patients where they are, without demanding that patients travel long distances to receive care. A promising strategy to achieve these aims is telehealth. Telehealth (used interchangeably with the term telemedicine) is broadly defined as the use of telecommunication technologies to provide medical information and services. Over the past decade, opportunities to provide virtual care through video visits have grown dramatically because of advances in data security and progress in policy measures to improve reimbursement. Studies from specialties ranging from pediatrics to adult neurology have demonstrated both feasibility and improved patient outcomes especially for remote monitoring and counseling for chronic conditions.[1] Particularly promising are telehealth interventions that improve access to care in rural areas.

Telepalliative care is the remote delivery of palliative care (PC) services and clinical information using telehealth. This includes telephone-based programs, video visits with clinicians, and remote monitoring of symptoms.[2–4] Telepalliative care is attractive because persons with serious illness often experience difficulty with mobility and transportation. Additionally, across the country, PC specialists are typically concentrated in urban areas, leaving many patients with limited access to PC services of any kind. Telepalliative care

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Accepted May 20, 2019.
*If you have a great idea for an article for the Specialists Series, please contact the Journal editorial office.

holds promise for improving PC access, reducing patient and family caregiver illness-related burden, offering real-time monitoring and management of symptoms, and proactively identifying new or unexpected functional decline. While telepalliative care has the potential to substantially improve both access to and the quality of PC, evidence is limited on how best to offer telepalliative care and what gaps can and cannot be filled through telepalliative care. Using the best available evidence and expert opinion, the 10 tips below highlight early-use cases; the benefits, cautions, and limits of the evidence base; and future promise of telepalliative care.

Tip 1: Video Visit Technology Can Be Used in Creative Ways to Expand Access to PC

Medical visits between a patient and clinician performed over video (a.k.a. video visits) represent the most rapidly growing area of telehealth.[5] Video visits have been proven to be feasible and acceptable by clinicians and patients in various medical fields, including psychiatry and oncology[6]; more data on video visit effectiveness, including health outcomes, health care utilization, communication, and safety, are needed both within and outside of PC.[1]

Video visits can facilitate the provision of specialty-level PC to seriously ill patients for whom getting to a PC clinic is difficult or impossible due to functional limitations or symptom burden. Video visits may also supplement in-person visits, by providing continuity and follow-up between in-person visits and addressing some urgent concerns. In all these situations, video visits may add value by allowing clinicians to see into patients' home environments and meet loved ones, such as children and pets, who may not normally appear at an office visit. Video visits allow the clinician to assess the patients' social situation to provide broader insights into the positive and potentially burdensome factors in the home environment that can impact serious illness and end-of-life care. Finally, video visits offer the opportunity for remote family members to participate in PC in-patient, clinic, or home visits, potentially enhancing consensus among the family unit.

Video visit technology can be utilized beyond direct patient–clinician interactions. Video visits can be used by a more experienced PC clinician to coach and support a less experienced provider who is with a patient in their home or a clinic. Video consultations, in which non-PC experts seek the advice and mentorship of PC clinicians, may extend the expertise and reach of PC, particularly in underresourced areas.

Tip 2: Even Patients from Vulnerable Populations Can Benefit from Telepalliative Care as the Digital Divide Narrows Over Time

Rural, older, and low-income patients are less likely to report using telehealth, including video visits, compared with other patient populations.[7] For these populations, access to the infrastructure necessary to benefit from telehealth, including an affordable smartphone or a computer that they know how to use and an adequate broadband or wireless Internet connection, can be challenging. However, these gaps are narrowing as technology matures, extends its reach, and becomes more affordable simultaneously with telehealth becoming an accepted part of mainstream medicine. In 2017, the Pew Foundation reported 63% of rural Americans now use broadband Internet and smartphone technology, compared to only 21% in 2011.[8] In a recent nationally representative survey of over 22,000 Americans, over 50% of patients living rurally, adults aged over 65 years, and Medicaid patients reported being willing to see medical providers over video.[7]

Vulnerable populations have the opportunity to benefit greatly from telepalliative care. Telepalliative care can make available expert PC consultation to those without specialty credentials in rural areas.[9] This technology can also provide PC to older adults who are homebound or for whom traveling to a clinic is physically and/or financially burdensome. In the TapCloud study, which reported positive results through the provision of PC via remote patient-monitoring and video visits, over a third of patients were age over 80. The investigators reported that with some initial coaching, older adults were readily able to use the technology and expressed a sense of accomplishment in doing so.[9]

Tip 3: Video Visits Allow for the Development of Trust, Rapport, and Engagement by the Clinicians Conscious Adaption to the Unique Elements of Video Visits

The context in which the patient–clinician encounter occurs has a substantial impact on the experience of participants. While video visits may provide a comfortable setting for a person with illness framed by the environment in which they live, clinical environments support identification with illness. Social distance, or the level of acceptance people have for others who do not share their socioeconomic and demographic status, has often been thought to interfere with the development of rapport and trust between patients and clinicians and impact the quality of medical care.[10] In-person appointments have a number of features that enforce the high status of clinicians, such as being granted entry past a front desk, waiting in an unfamiliar environment for a clinician to be available, or being stood over on an examination table. Video visits contain none of these elements, and may reduce social distance, thereby increasing the quality of communication and trust between patients and clinicians.

Many behaviors that are ingrained for in-person office visits require modification to optimize video visits and the rapport between patient and clinician. Eye contact is made by looking at the camera (often at the top of the clinician's screen), not at the image of the patient in the center of the screen. Looking off-camera, even just to take notes, can make you look distracted.[11] Communication via body language is limited, so you may need to use words instead of actions, and encourage patients to do the same. Physical spaces are also important to consider. An office that looks comfortably cluttered in person can be distractingly busy on camera, as can tightly patterned clothing.[12] It is important to have the camera positioned at eye level and firmly affixed, not held in your hand. A wobbly camera can induce nausea in some patients.

Tip 4: Patients Cite Convenience, Better Access to Clinicians, and Quality as Strengths of Telehealth

A growing body of evidence suggests telehealth is generally well accepted by patients. A recent study performed at

Massachusetts General Hospital surveyed 254 patients seen by their psychiatry, neurology, cardiology, oncology, or primary care physicians through video visits for follow-up.[13] In this study, patient satisfaction was high; 82% of patients strongly agreed they would recommend video visits to friends and family. Over 60% of patients reported no difference in the quality of a video versus office visit, and a similar percentage cited no difference in the personal connection they felt with their provider by video versus office visit. Similarly, a study of 101 PC patients in rural western North Carolina found overwhelmingly positive patient, caregiver, and provider satisfaction using remote patient monitoring for symptoms and well-being and video visits over the TapCloud platform.[9] Patients and caregivers cited improved access to clinicians, response times, efficiency, and quality of care as benefits of the technology.

Tip 5: As With Any Disruptive Innovation, Clinician Viewpoints on Telehealth Vary Widely; More Research Is Needed to Understand PC Clinician Experience

Early adopters of telehealth across medical specialties report that technologies such as remote patient monitoring and video visits improve their accessibility to patients and ability to address urgent concerns in a timely manner. Many clinicians remark video visits are as efficient or more efficient than in-person visits.[13] Other potential benefits of video visits include saving ''windshield time'' for home-visiting PC clinicians and providing opportunities to turn previously unbillable work (i.e., phone calls) into billable work via a video visit (depending on the patient's insurance). These benefits may be particularly useful for PC clinicians given the amount of follow-up and care coordination that happens between discrete clinical encounters.

While acknowledging the benefits, skepticism remains. PC is a ''high-touch'' field in which rapport and trust between the clinician, patient, and family is paramount. Some clinicians worry that technology such as video visits may erode the clinician–patient relationship or lead to less fruitful conversations. It remains unclear to what extent sensitive issues, including goals of care and end-of-life counseling, can and should be discussed by video versus in-person visits. In the study at Massachusetts General Hospital noted above, about 50% of clinicians from various disciplines felt in-office visits facilitated deeper patient–provider connections compared with video visits.[13] Anecdotally, a major hurdle appears to be getting clinicians to do their first video visit—once they do, many report positive experiences. Other clinicians raise concerns that PC patients may be too medically tenuous for video visits, and that for patient safety these patients should be seen in-person for any change in symptoms. Systematic research evaluating the potential differences in quality, health care utilization, morbidity, and mortality for PC patients seen in-person versus over video is ongoing.

Tip 6: Technology-Based Interventions Such as Online Support Groups, Video Visits, and Mobile Applications Can Provide Needed Support for Family Caregivers

An abundance of research has identified the need for interventions focused on family caregivers of seriously ill patients. Technology offers tools to facilitate evidence-based interventions that address caregiver needs by overcoming geographical barriers and isolation. Both custom-made and publicly available platforms, such as Facebook, are being used for asynchronous and synchronous online peer support between caregivers.[14] Video visits and mobile applications may help caregivers to care for themselves and attend to their own medical needs by not requiring they leave their loved one or arrange for additional help to seek medical or psychological care. New innovative uses of technology to support caregivers with education through online portals, YouTube videos, and simulation experiences are growing.[15] Finally, artificial intelligence applications such as interactive pets and robots offer promise as tools to ease loneliness for isolated caregivers.[16]

Keys to caregiver acceptance of technology-based interventions include adequate access to technology infrastructure such as the Internet and smartphones, affordability of available technology, ease of use of the technology, and confidence in the security of health data. To date, research has focused on the feasibility of various caregiver support technologies, but more data on specific psychosocial outcomes, including distress, support, and grief, are needed.

Tip 7: Implementation of a Telepalliative Care Program Requires Careful Planning, Including a Needs Assessment and Metrics to Evaluate Success

There is no ''one-size-fits-all'' model of telepalliative care, so the first major task to start a telepalliative care program is a needs assessment. A recently published framework for conducting a telehealth needs assessment highlighted key steps, including collecting data about available health services and how far patients have to travel for those services; ascertaining the ease with which residents from a geographic area can access particular health care services (including travel costs and lost work time); collecting qualitative and survey data from key stakeholders; determining areas for piloting; and identifying champions and a telehealth service platform.[17] One should be prepared to invest time investigating their institution's current use of telehealth, and consulting with the existing institutional resources for hardware, software, connectivity, billing, and scheduling processes.

Additional steps include developing a technology and services plan, a budget and business proposal, training personnel, and identifying and implementing metrics to evaluate success. Helpful resources for identifying metrics for telehealth programs are available from consensus reports and environmental scans by the American Telemedicine Association[18] and the National Quality Forum.[19] Major domains to consider measuring for program effectiveness include access to care, health system cost, cost effectiveness for patients and families, patient experience, and clinician experience.

Tip 8: Attention to the Quality of Technology and Checklists Can Help Ensure Successful Video Visits

There are several best practices for using technology for video visits.[20] First, it's critical for clinicians to use a high-quality webcam and microphone. Patients need to be able hear the clinician's voice clearly and sufficiently loudly. If patients are using their own smartphones or computer equipment for the visit, have them test their connections and video quality beforehand, ideally several days before, with a designated member of your administrative team. Second,

there should be a dedicated space for clinicians performing video visits. The space needs to be quiet and without background noise, private (to ensure confidentiality), and must have good lighting.[21] All required video visit technology should be in the space, readily accessible, and primed for use. Third, a system of notifications needs to be implemented so that clinicians know when patients are ready to see them. Some video visit platforms offer a ''waiting room'' in which clinicians have control over whom they let into the video visit and at what time. Other options could include email, text, or phone.

Before each video visit, a checklist of items should be reviewed to minimize technical delays in the encounter. Items on this list should include testing the webcam, performing a volume check (to make sure you can hear and that you are not muted), plugging in the computer or mobile device (you do not want to run out of battery), connecting to a wired Internet connection, closing unnecessary programs, and using the correct Internet browser. The clinician's staff (including tech support) should be readily available to assist the clinician should issues arise.

Tip 9: While Medicare Places Significant Limitations on Reimbursement, Commercial Insurers and Individual Health Systems Are Embracing Creative Solutions to Advance Video Visits

An increasing number of states have some type of legislation addressing private insurance and Medicaid coverage for telehealth (video, phone visits, or both).[22] The laws vary considerably between states and can specify coverage parity, payment parity, or both. Coverage parity laws require insurers to provide coverage for services provided via telehealth if the equivalent in-person service is also covered, but the reimbursement is not required to be the same. Payment parity laws, which are less common, require the same reimbursement for both in-person and telehealth encounters. The Center for Connected Health Policy maintains current information about state laws and policies for telehealth.

Medicare, as a federal program, is not held to state laws. Although it is possible to receive reimbursement from Medicare for care that includes telehealth, the process can be challenging. Chronic care management (CCM) codes provide a monthly reimbursement when at least 20 minutes per month is spent coordinating care and communicating with patients who have multiple chronic conditions. Time spent communicating via telehealth counts toward the 20-minute minimum, but there are a number of other requirements that must be met before billing for CCM.[23] Newly available in 2019 is reimbursement for short ''virtual check-ins'' conducted via a telecommunication system.[24] These are intended to be lightweight clinical encounters <10 minutes in length; the reimbursement is correspondingly low, and there are other barriers that will likely limit their use.

Even if Medicare and the laws of your state do not provide reimbursement, your institution may. As the strategic value of telehealth becomes increasingly clear, many institutions are using alternate funding mechanisms. Self-pay rates can be set so that patients are able to participate in video visits without reimbursement, or philanthropic or strategic funds can be applied to make up the shortfall.

Tip 10: Telepalliative Care Can Advance Person-Centered and High-Quality Health Care by Promoting Patient-Reported Outcomes and Creative Technological Solutions for Monitoring Patient Symptoms and Function

Telepalliative care offers an opportunity to utilize remote monitoring of patient symptoms and function, taking advantage of the documented benefits of web-based patient-reported outcomes (PROs), which include improved symptom management, health care utilization, and even mortality.[25] The electronic PRO industry has been called the ''future of health care'' and is valued at >$500 million. Basic computer technology (e.g., desktops, laptops, iPads, and smartphones storing data in the cloud and linking to clinical practices via the Internet) can prompt and direct patients to record symptoms such as pain over time and then report those symptoms to health care professionals for assessment and response. Smartphone applications in PC have demonstrated feasibility, usability, acceptability, and improved symptom management, including in rural populations with elderly patients.[9] Patients, caregivers, and clinicians have reported positive experiences. The most recent advances add artificial intelligence for real-time response to patient data directly and have shown improvement in symptom control and health care utilization.[26]

The technologies available for patient monitoring are developing quickly and are becoming simpler and less burdensome to patients. Wearable technologies can track and report patient data with minimal patient engagement. Smartphones, smartwatches, and other mobile and wearable technologies (e.g., Fitbit) can monitor, record, summarize, and report patient activity/steps, motion and travel, sleep patterns, heart rhythm, and other symptoms and signs with no direct patient involvement, understanding, or commitment. The role of health care professionals in helping patients to use such technologies and the tremendous bounty of data they produce is key, including orienting patients to the utility of such monitoring and identifying the proper role of skilled providers in interpreting and responding to the data generated. Recent examples of technology misused serve as a reminder to make sure technology is of service and does not cause harm.[27]

Conclusion

Telepalliative care is showing promise as a potentially powerful tool for increasing access to PC across the country in a scalable and sustainable fashion. For a video visit program to be successful, a needs assessment, understanding how to bill for video visits depending on payer mix, clinician training to address the differences between providing care via in-person and video visits, and technology checklists are key. Telehealth technologies to support caregivers and remote monitoring and reporting of patient symptoms are additional exciting opportunities to extend support for seriously ill patients and their families. We should proceed with cautious optimism with this technology while simultaneously generating a more complete evidence base to support telepalliative care. Additional data, including patient and clinician experiences, patient outcomes such as symptom management and well-being, health care utilization, and costs, are needed to ensure we are employing the technology safely and effectively and to inform best practices across the field.

Author Disclosure Statement

No competing financial interests exist.

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