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Rapid Implementation of Inpatient Telepalliative Medicine Consultations during COVID-19 Pandemic

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Title: Rapid Implementation of Inpatient Telepalliative Medicine Consultations during COVID-19 Pandemic

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Abstract

As COVID-19 cases increase throughout the country and healthcare systems grapple with the need to decrease provider exposure and minimize personal protective equipment (PPE) use while maintaining high quality patient care, our specialty is called upon to consider new methods of delivering inpatient palliative care. Telepalliative medicine has been used to great effect in outpatient and home-based palliative care, but has had fewer applications in the inpatient setting. As we plan for decreased provider availability due to quarantine and redeployment and seek to reach increasingly isolated hospitalized patients in the face of COVID-19, the need for telepalliative medicine in the inpatient setting is now clear. We describe our rapid and ongoing implementation of telepalliative medicine consultation for our inpatient palliative care teams and discuss lessons learned and recommendations for programs considering similar care models.

Identification of Need

In a few short weeks, local, regional, and national conditions changed rapidly. On February 26th, the California DPH reported the first community spread case of COVID-19. The University of California at San Francisco (UCSF) then limited in-hospital personnel to essential providers only. On March 15th, UCSF instituted a hospital-wide visitor ban with exceptions for patients at the end of life. Personal protective equipment (PPE) scarcity then prompted calls for minimizing in-person visits by providers. Finally, on March 16th, UCSF opened its first closed COVID-19/respiratory illness unit with 31 negative pressure rooms. In the setting of these rapid and unprecedented changes, our Inpatient Palliative Care Services (PCS) team recognized that telepalliative medicine consultation would be critical to protect providers, limit PPE use, and provide adequate services to patients throughout the hospital and especially within closed COVID-19 units.

Inpatient Telepalliative Medicine Need in COVID-19 Pandemic

Telepalliative medicine as the remote delivery of palliative care services has rapidly expanded in recent years largely in outpatient and home-based settings, with the highest increase in video-based services.^{1,2} When used for communication, counseling, and disease monitoring, telemedicine has been associated with reductions in mortality and hospital admissions, and improvement in quality of life.^{3,4} Telepalliative medicine expands access to palliative medicine, reaches vulnerable patients, and allows for unique forms of relationship building.⁵ With the emergency expansion of telehealth reimbursement by the Centers for Medicare and Medicaid Services, telemedicine is also now increasingly financially feasible.⁶

In this global COVID-19 pandemic, we expect a surge in need for symptom management, early goals of care conversations, and care at the end of life. We already observe increased psychosocial, spiritual, and existential suffering. Anxiety and hopelessness are exacerbated by the social isolation of hospitalized patients. Goals of care conversations will be imperative as part of a strategy to avoid painful resource allocation decisions, and restrictions on visitors make family meetings impossible without the use of technology. Moral distress, trauma, and helplessness for providers will be elevated in caring for isolated ill and dying patients. These diverse needs will fast outstrip the current inpatient palliative care workforce, especially if providers are limited by personal illness or if team members are reassigned to help in other areas.

Implementation

Given the expected increased need for palliative medicine and hospital mandates to limit PPE use and provider exposure, we rapidly moved to implement an inpatient telepalliative medicine program. Over the past two years we implemented a pilot using iPads to allow outpatient palliative care clinicians to conduct video visits with their patients while hospitalized to promote continuity. This experience demonstrated that inpatient video visits are feasible and beneficial.

At UCSF, the Inpatient PCS team is composed of three teams at two hospitals, with 11 attending physicians (1 per team), 2.5 social workers, a registered nurse, and a chaplain. We decided that consultations by all PCS team members for patients with confirmed or suspected COVID-19 would be done via telemedicine, and encouraged remote visits for other patients requiring PPE to limit exposure and reduce PPE use. We launched three forms of remote interventions for patients in the inpatient setting: chart-based e-consult for symptom management recommendations, telephone consultation, and video consultation.

We created shareable templates and dot phrase attestations in the electronic health record (EPIC) for providers to document these visits and to mark note types for billing (Supplement 1). A local foundation donated 10 iPads, cases, and trackers. An electronic sign out sheet tracks iPads and scheduled meetings.

We worked with nursing and hospital medicine leadership involved in launching the closed COVID-19 unit, outfitted with iPads and cameras in every room, to design workflows to reach patients via telepalliative video visits (Figure 1).

Zoom videoconferencing software is the video platform of choice at UCSF based on security and accessibility. However, with the recent liberalization of HIPAA compliance guidelines by the US Department of Health and Human Services, other options can be considered. Providers initiate videoconferencing sessions from their work computers or phones in the hospital or at home.

Technological Considerations

Programs should consider the following technological concerns as part of implementation. Quality WiFi and/or cell phone reception and clear audio is key. Studies have shown that technological issues with video result in decreased engagement and patient satisfaction and harm rapport building.⁷ Videoconferencing technology should ideally integrate with interpreter services, which may be audio-only. It is helpful to create or repurpose educational materials (many already exist for the outpatient setting) to introduce patients to videoconferencing and how/when palliative providers might contact them remotely. Many patients have personal smart phones/devices, and these can be leveraged when hospital-provided technology is not available. Finally, videoconferencing can be used both for fully remote consultation as well as by in-person providers to include remote team members or family members.

Lessons Learned

Interacting with patients and families via videoconferencing is fundamentally different from in-person consultation. In palliative medicine, we rely heavily on non-verbal cues to guide us in redirecting conversations and responding to emotions. Many of the techniques we turn to, including touch and even the act of sitting down with a patient, are not available to us via telemedicine. Some consults will still require in-person consultation, for example when patients are hard of hearing, unable to use technology, or require physical examination. However, in

most cases, PC providers can apply their skills of listening, perceiving, and connecting via video. Telepalliative skills are novel and take time to develop. And yet, telemedicine is a powerful tool that can promote good communication and high-quality care.

Providers may express grief at being separated from patients and team members. Healthcare providers have a known tendency towards pathological altruism, especially in humanitarian crises, and can experience guilt around not being part of the “frontline” team in the hospital.⁸ Teams should re-frame and emphasize the need for all providers to work to redesign our healthcare delivery system and imagine new ways of providing care, not only for this crisis but for the future as well. Preventing provider illness enables individuals to continue to provide care and preserves our most precious resource: the limited palliative medicine workforce. Moreover, remote consultation decreases PPE use and ensures first responders and bedside providers are protected for the duration of this crisis. It is helpful to acknowledge these emotions and address them in teams openly, ensuring that providers working in all settings are respected and no role is treated as more or less heroic.

Apart from the emotional challenge around working remotely from home, there are functional struggles. Working at home can be distracting, especially if many family members are at home sheltering in place. Homes are not always functionally or ergonomically set up to perform remote clinical visitation. It can be difficult to maintain work-life separation, and providers may find identities and schedules bleeding into each other. Teams should be kind to one another amid this new chaos of life. We are working to practice humility and patience with ourselves and our team members as we practice in a new way.

Policy changes and workflow innovations should be established with the expertise of all palliative disciplines. It is helpful to reassure individuals that emergent variations to work flow are fluid and do not necessarily reflect permanent changes. Ensuring continued interdisciplinary collaboration will maintain holistic policies and, ultimately, optimal care for patients and families.

Work flows for videoconferencing should be designed to minimize nursing burden, given the many demands on their time. Programs can consider identifying palliative care team members to schedule visits and remotely train patients and families to videoconference. It is helpful to leverage the wisdom and advice of outpatient teams experienced with videoconferencing.^{5,9}

Rapid implementation of technology relies on robust health infrastructure support. Health systems should empower teams with technology and flexibility and emphasize that while piloting new interventions, billing may be suspended as a top priority. Lifting limitations and empowering providers leads to novel, previously unimagined ideas.

Conclusions

In this unprecedented time, we have a unique opportunity to redesign the way we provide care. For example, UCSF is currently embarking on ways to equip rooms with video capability connected to hospital room phones, allowing providers to call in and “ring” patient iPads to immediately and automatically activate their videoconferencing to perform visits. This type of intervention has the potential to revolutionize inpatient medicine. The great hope for our field is that we emerge from this crisis as leaders not only in humanistic patient care, but also as leaders in our health systems and experts in novel technology to deliver quality care.

With our national move towards “social distancing,” we re-frame that idea to highlight that despite physically distancing, we can still socially connect. This is especially critical for our patients with COVID-19, who are isolated in hospital rooms, unable to see or touch loved ones, and rarely interact with health care providers covered in PPE. Telepalliative medicine provides the opportunity – particularly by video – to connect to patients, connect them to others, and provide as intimate and interdisciplinary support as possible in these times.

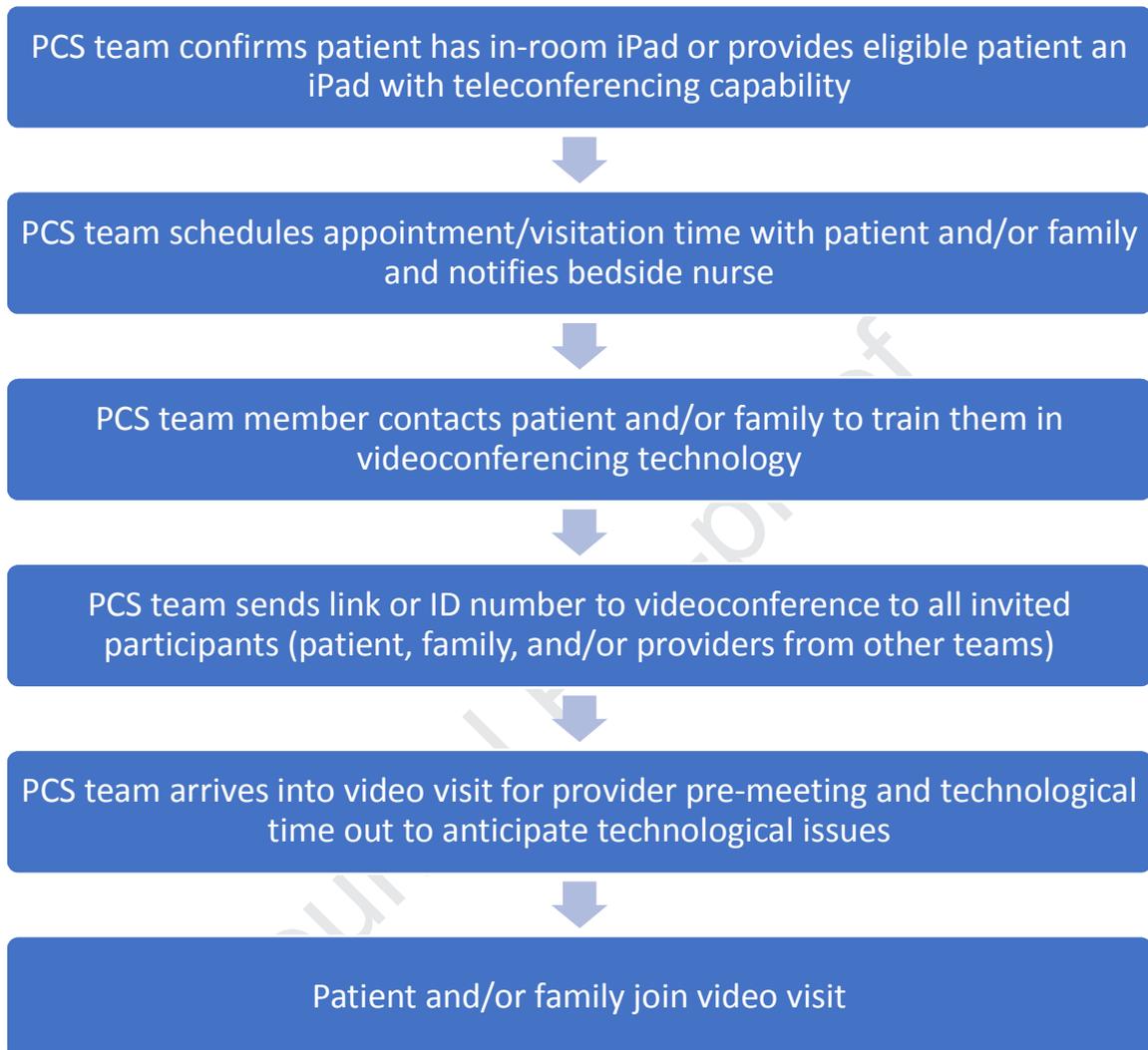
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References

1. Maguire R, Fox PA, McCann L, et al. The eSMART study protocol: a randomised controlled trial to evaluate electronic symptom management using the advanced symptom management system (ASyMS) remote technology for patients with cancer. *BMJ Open*. 2017;7(5):e015016. doi:10.1136/bmjopen-2016-015016
2. Read Paul L, Salmon C, Sinnarajah A, Spice R. Web-based videoconferencing for rural palliative care consultation with elderly patients at home. *Support Care Cancer*. 2019;27(9):3321-3330. doi:10.1007/s00520-018-4580-8
3. Worster B, Swartz K. Telemedicine and Palliative Care: an Increasing Role in Supportive Oncology. *Curr Oncol Rep*. 2017;19(6):37. doi:10.1007/s11912-017-0600-y
4. Totten AM, Womack DM, Eden KB, et al. *Telehealth: Mapping the Evidence for Patient Outcomes From Systematic Reviews*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2016. <http://www.ncbi.nlm.nih.gov/books/NBK379320/>. Accessed March 23, 2020.
5. Calton BA, Rabow MW, Branagan L, et al. Top Ten Tips Palliative Care Clinicians Should Know About Telepalliative Care. *J Palliat Med*. 2019;22(8):981-985. doi:10.1089/jpm.2019.0278
6. MEDICARE TELEMEDICINE HEALTH CARE PROVIDER FACT SHEET | CMS. <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>. Accessed March 23, 2020.
7. Henry BW, Block DE, Ciesla JR, McGowan BA, Vozenilek JA. Clinician behaviors in telehealth care delivery: a systematic review. *Adv Health Sci Educ Theory Pract*. 2017;22(4):869-888. doi:10.1007/s10459-016-9717-2
8. Oakley BA, ed. *Pathological Altruism*. Oxford ; New York: Oxford University Press; 2012.
9. Wootton AR, McCuistian C, Legnitto Packard DA, Gruber VA, Saberi P. Overcoming Technological Challenges: Lessons Learned from a Telehealth Counseling Study. *Telemedicine and e-Health*. December 2019. doi:10.1089/tmj.2019.0191

Figure 1: Example Work Flow for Inpatient Telepalliative Consultation



Supplement 1

PALLIATIVE CARE TELEMEDICINE CONSULT NOTE

My date of service is ***

Consult requested by Dr. *** of the *** service.

Reasons given by referring provider for initial PC consult (check all that apply): ***

Primary diagnosis leading to PC consult (check one): ***

Surrogate decision maker: ***

History of Present Illness

Symptom scores:

Pain: None/Mild/Moderate/Severe/Not assessed

Anxiety: None/Mild/Moderate/Severe/Not assessed

Nausea: None/Mild/Moderate/Severe/Not assessed

Dyspnea: None/Mild/Moderate/Severe/Not assessed

Pain:

1. Pain character: ***
2. Pain duration: ***
3. Pain effect: ***
4. Pain factors: ***
5. Pain frequency: ***
6. Pain location: ***

Palliative Performance Scale (PPS) at time of consult: ***

Screening and interventions (check all that apply):

Screening: Pain/Non-Pain Symptom/Psychosocial/Spiritual/GOC

Intervened: Pain/Non-Pain Symptom/Psychosocial/Spiritual/GOC

Spiritual screen: ***

Vitals

Vital Signs

I/Os

TELEMEDICINE PHYSICAL EXAM

Via Video Observation:

Constitutional: Patient is oriented to person, place, and time. Patient appears well-developed and well-nourished.

Head: Normocephalic and atraumatic.

Pulmonary/Chest: Respiratory effort normal.

Psychiatric: Normal mood and affect. Behavior is normal. Judgment and thought content normal.

Data

I spoke with *** from *** team regarding ***.

Assessment and Recommendations

Mr. N is a ***

#Problem List

Outpatient Palliative Care Services: (Please place a discharge referral to ***/already followed by ***)

A family meeting was held today: Yes/No

Other interventions: Advance Directive/POLST/Code Status Clarified/***

Code Status: ***

Counseling / Coordination of Care

I provided guidance for the patient and/or family and/or medical team:

TELEMEDICINE VISIT

I performed this consultation using real-time Telehealth tools, including a live video connection between my location and the patient's location. Prior to initiating the consultation, I obtained informed verbal consent to perform this consultation using Telehealth tools and answered all the questions about the Telehealth interaction.

Dr. ***

Date