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Feasibility and Acceptability of Inpatient Palliative Care E-Family Meetings During COVID-19 Pandemic

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Abstract

Family meetings are fundamental to the practice of palliative medicine and serve as a cornerstone of intervention on the inpatient palliative care consultation service. The COVID-19 pandemic disrupted the structure and process of in-patient family meetings, owing to necessary but restrictive visitor policies that did not allow families to be present in the hospital. We describe implementation of telemedicine to facilitate electronic family (e-family) meetings to facilitate in-patient palliative care. Of 67 scheduled meetings performed by the palliative care service, only two meetings were aborted for a 97% success rate of scheduled meetings occurring. On a five-point Likert-type scale, the average clinician rating of the e-family meeting overall quality was 3.18 (SD, .96). Of the 10 unique family participants who agreed to be interviewed, their overall ratings of the e-family meetings were high. Over 80% of respondent families participants reported that they agreed or strongly agreed that they were able to ask all of their questions, felt comfortable expressing their thoughts and feelings with the clinical team, felt like they understood the care their loved one received, and that the virtual family meeting helped them trust the clinical team. Of patients who were able to communicate, 50% of family respondents reported that the e-family meeting helped them understand their loved one's thoughts and wishes. J Pain Symptom Manage 2020;60:e28–e32. © *2020 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Introduction

The family meeting is a cornerstone for shared decision making between the patient, family, and critical and palliative care teams. It facilitates information exchange that enables families and clinical teams to align with the patient's goals and values, while attending to the emotional needs of patients and families.[1] Telemedicine has been described in palliative care as a modality to deliver palliative care during inpatient palliative care consultation and the home-based setting yet little is known regarding the use of telemedicine to conduct virtual family meetings, particularly during a pandemic.[2-4] We sought to implement and evaluate the use of telemedicine on one aspect of palliative care consultation, the family meeting.

Methods

The Emory Palliative Care Center, part of Emory University, provides in-patient consultation service at nine hospitals which include a wide range of settings from quaternary academic to community hospital settings. The inpatient telemedicine palliative care consultation workgroup convened on March 19, 2020 to develop a standard process enabling e-family meetings (Table 1) and a goal to develop a workflow that could be replicated at each of the nine facilities served by the Emory Palliative Care Center. We identified Emory University Hospital Midtown (EUHM) as the initial pilot location. The team sourced the necessary equipment, which included a tablet device with built-in speakers that could provide adequate sound (iPad, Apple, Inc., Cupertino, CA) that deployed

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Table 1
E-Family Meeting Procedure

Key Steps	Pearls and Helpful Phrases
1. Identify a single point of contact for the family and schedule the meeting	• Coordinate with bedside nurse to set meeting time that aligns with anticipated nursing or respiratory patient care schedule. This also provides meaningful opportunities for other care team members to engage with patient's family. • Confirm planned meeting time allows for participation of necessary or interested care team members (e.g., ICU team, social worker, chaplain, other consultants) • Identify and call single point of contact for the family and obtain their email address. • If care decisions need to be made, confirm that the necessary legal surrogate/s will be available to participate at proposed meeting time. • Schedule meeting and generate an email link. • Share link with invited care team members.
2. Provide meeting link and instructions in email to family	• Email Zoom link with the family point of contact, instruct them to share the link with anyone that they want to have join the meeting. • Email Zoom links for both audio only and audio/video participation to allow participation of individuals who lack Internet access. • Send email link from a protected and unmonitored email address with disclaimer that email address will not be used for further communication. • *"Please write down any questions you have about your loved one's care before the meeting so we can be sure to address all your concerns."* • *"Please join 10—15 minutes before the start of the meeting to ensure all technical difficulties may be addressed"* • *"Please find a quiet environment for participation, during the meeting we ask that you stay on mute unless talking."*
3. Plan entry, "donning" and positioning of the tablet device	• Place the tablet in a plastic disposable sleeve cover (no-sterile paper sheet protectors) ensuring that the tablet speaker is at the open end of the plastic sleeve to optimize sound. • Place tablet in the stand on bedside tray table and position to ensure patient is in view. • If patient is not able to participate in meeting, mute audio on tablet to prevent meeting disruption due to alarms and monitor sounds in patient room.
4. Start the E-Family Meeting	• Set an agenda sharing what you hope to cover and invite the family to add items to the agenda. • "*We want to make sure that you have a meaningful visit and that this encounter meets your needs. From our perspective, we would like to provide a clinical update and answer any questions you may have and then allow a virtual visit. Are there any other items you would like to add to our agenda today? We have total of about X minutes."* • Notify/warn the family before the patient appears on the screen what they will see. • "*For some people it's helpful to see their loved one by video when they are unable to see them in person; for others, it is not helpful. If you find the images disturbing, you can simply turn away from the screen or place your phone or tablet face down."* • Provide guidance that the video content maybe upsetting to children or others. • *"If there are children who may be present, we recommend that their parents or other adults view first and use their discretion if it is appropriate for children to view the video as well."* • Discuss safety ground rules: no driving. • *"Your safety is important to us, we will begin the meeting when you are able to bring your car to a stop and in a safe location".*
5. Conducting the e-family meeting	• Ensure proper introductions of the team and family—can be larger than typical in-person meeting • Allow for patient to speak • Address as many people on video as possible • Mute participants that are disruptive if necessary
6. Offer a virtual visit	• When able, allow time for family to have a visit with patient • *"We are going to allow you a private virtual visit with X, we will mute our audio and video, and we will check in with you in about x minutes, please take this time to visit. We will let you know when we have about two minutes left."*

(*Continued*)

Table 1
Continued

Key Steps	Pearls and Helpful Phrases
	• For patients at end of life encourage participants to "*please take this time to say whatever is in your heart.*" • Offer opportunity to allow for spiritual practices, prayer, or music; invite available spiritual health clinicians or chaplains to facilitate this portion of the meeting.
7. Ending the meeting	• Give a two-minute warning • Use a timer verbal countdown to end – *"this meeting will end in 10 seconds … 10, 9, 8, 7 …. "* Then shut the video off.
8. Recover, "doff," and clean the tablet and stand	• Coordinate tablet removal preferably with available care team member who has patient care need for PPE and entry into room • Doff the tablet from the protective sleeve and clean the device and stand with sanitizing wipe

Suggested communication phrases are represented in italics.

Zoom (Zoom Video Communication, Inc., San Jose, CA) for a multiway audio-video interface at the originating site (patient's room). The palliative care clinician used another tablet at the immediate distant site (outside the patient's room), and family members connected via Zoom loaded on their own device(s). One member of the workgroup was responsible for the training. First, we trained all providers (8) at the initial pilot site, EUHM. For the remaining facilities, we identified one to three champions at each location and employed a train-the-trainer model. Over the course of several days, the trainer then went to each of the remaining practice sites and provided a hands-on demonstration of the steps for conducting an e-family meeting (Table 1). Subsequently, the champions then provided training of other team members at their respective practice locations. The primary trainer remained available to all of the sites and checked in periodically with each location to provide further coaching and seek feedback from end-users.

We evaluated our intervention using two sources of data. First, we developed a brief, Web-based survey for clinicians to complete at the end of each e-family meeting. The survey captured information regarding the process of the e-family meeting, such as the reason for the meeting, the number and types of individuals included in the meeting, and any technical impediments. Clinical participants were asked what went well, what could be improved, and how they felt the technology impacted the interaction using Likert-type scales and free-text boxes. We invited family members to participate in a brief, one-time, semi-structured, telephone interview to understand their experience with the technology and their feedback regarding the e-family meeting. Interviews were conducted by a research assistant and were audio-recorded, with relevant segments transcribed verbatim for the purposes of rapidly identifying key themes to inform process improvement. This quality improvement initiative, both its implementation and evaluation, was deemed by the Emory University Institutional Review Board as nonhuman subject research.

Results

Between March 29, 2020 and April 23, 2020, we conducted a total of 67 e-family meetings for 63 unique patients (four patients received two e-family meetings). Two meetings were aborted, one due to a patient who died before the meeting could occur, and another due to poor-quality video connectivity. Seventy-percent ($n = 44$) of patients were COVID-19-positive, and 59% were intubated at the time of the family meeting. The predominant reasons for the family meeting were to provide family support (90%), to provide clinical information including prognosis (38%), and to clarify goals of care (35%). On a five-point Likert-type scale, the average clinician rating of the e-family meeting overall quality was 3.18 (SD, .96). Of the 63 unique families participating in this pilot, 10 (16%) both agreed and were able to be interviewed. Family members responded to a series of statements using five-point Likert-type scales regarding their perceptions of the e-family meeting and also shared qualitative statements to specific prompts regarding what they believed would have occurred if an e-family meeting (and therefore no family meeting at all) had not been an option (Table 2).

The guiding principles in developing the workflow included the safety of all involved, efficiency of the process, and minimizing or eliminating further burden to already stressed staff. We learned that an iterative process involving the bedside nurse and primary providers in both the planning and participation of the e-family meetings significantly enhanced the workflow.

Within a week of the first COVID-infected patient being admitted to EUHM, the palliative care team

Table 2
Family Perspectives Regarding E-Family Meeting Experience

Quantitative Feedback	
Item	*N* (%) of Respondents Endorsing "Agree" or "Strongly Agree"
Because of the virtual family meeting, I was able to ask all of the questions I wanted pertaining to my loved one's care.	9 (90)
Because of the virtual family meeting, I felt comfortable expressing my thoughts and feelings with the clinical team.	10 (100)
Because of the virtual family meeting, I feel like I understand the care that my loved one is receiving (/received).	9 (90)
Because of the virtual family meeting, I was able to understand my loved one's thoughts and wishes.	2 (50)[a]
Participating in the virtual family meeting helped me to trust the clinical team.	8 (80)
I am satisfied with the care given by the clinical team.	9 (90)
Selected qualitative feedback from family members regarding what if e-family meeting had not been an option	

- "… [My anxiety] would've been a lot worse … I would have driven down to the hospital and stood outside staring at a window that may not even be my mom's window … You never know what the brain will do in a desperate time."
- "Oh, I would have been devastated!"
- "… I wouldn't have known the severity of the situation … For me to see [my father] incapacitated … it really puts into perspective how the virus is."

[a]Denominator is different for this question as it was asked only of family members whose loved one was not intubated at the time of the e-family meeting.

had implemented a COVID response plan which included automatic consultation on all critical care patients with confirmed or suspected COVID-19. This allowed us to identify patients earlier in their hospital course. This was particularly important for patients who were not yet intubated, but whose clinical course was trending in that direction. As the volume of COVID-19 cases increased across the system, other member hospitals adopted similar strategies to identify and see patients within a day or two of admission to the ICU. The individual palliative care site directors have reported that this initiative has strengthened the relationships between critical care and palliative care across our system particularly in the COVID-19-cohorted ICUs.

To promote consistency and proficiency, palliative care team members were trained in two steps. The first was a Zoom meeting for all participating providers providing an overview of the process. The second step employed an on-site, hands-on, train-the-trainer model at each of the eight participating locations in 45- to 60-minute sessions (Table 1). We identified champions at each location. The trainings were rolled out with all sites trained and equipped to perform meetings within two weeks of the initial introductory meeting. As team members became more proficient, they began to provide additional real-time training for other team members adopting the technology in their workflow. We learned that as with the introduction of any new skill or tool, users became more proficient with subsequent use and that real-time training was most beneficial in conferring skill and benefit of e-family meetings.

Early on, we realized the importance of preparing families before allowing them to see their critically ill loved ones in a state which they likely were not used to seeing them. Because of the Georgia Governor's shelter in place order, the majority of families had not seen their family member recently or before the onset of severe symptoms. To support families coping with the unanticipated deterioration of a loved one, we spent time describing the patient's visual condition before establishing a video connection with the patient. We learned visitor restrictions combined with rapid clinical deterioration posed by COVID-19 placed significant barriers to understanding and processing the severity of illness. We recognized that despite their knowing that their loved one was in the ICU, families often needed time to process the visual image at the outset of the meeting. Providing a warning and using empathic statements was an important first step before proceeding with providing a clinical update.

Conservation of PPE and reducing unnecessary exposure to staff was a high priority for our institution. In addition, we saw high levels of stress among the staff in the COVID-19-cohorted critical care units. While we found the nursing staff to be very supportive of the program, early on we became keenly aware of the need to coordinate with the bedside nurse to determine the optimal time to schedule a meeting. This served several practical purposes: the nurse would plan care needs of the patient to coincide with meeting times so we could take advantage of times when the nurse had planned to be in the room for patient care—related tasks: we reduced the use of PPE for the sole purpose of placing or removing a tablet; we provided an opportunity for the bedside nurse to interact with the family and/or participate in the meeting. Similarly, when the nurse was

unavailable, we also coordinated with Respiratory Therapy and Environmental Services. Our lesson learned is that involving essential staff members not only allowed for preservation of PPE and minimization of exposure but also provided care team members meaningful opportunities to engage with patient families.

To abide by standard infection control practices, tablets were inserted into standard 8 ½" × 11" clear plastic sheet protectors and placed in a stand (desktop file sorter) to enable the tablet to be tilted forward for optimal viewing between patient and family. Upon completion of the e-family meeting, the tablets were slowly emptied from the sheet protector onto a clean surface, the sheet protector was discarded, and disinfecting wipes were used to sanitize the tablet and holder. Optimizing interaction among patient and family members did not require sacrificing infection control measures or costly supplies.

Adopting new skills and workflow requires creativity and resilience. While communication via video certainly adds more meaning and information than audio alone, we found it provided unexpected situations that we did not readily anticipate early in the development of the e-family meeting. Palliative care providers often pride themselves on communication skills, which are learned over time, intentionally with training and as well as experience. We offer helpful phrases for some of the unusual situations we encountered while conducting the meetings thus far (Table 1).

Conclusions

During the COVID-19 pandemic when social distancing required a no-visitor policy, we demonstrated the efficient deployment of telemedicine for e-family meetings that was both feasible and effective for decision-making for patients who were near end of life and their families. Family meetings likely happened sooner and with far more participants than would have been possible without the use of the technology. While providers expressed limitations in the use of technology including difficulty hearing over devices in the ICUs, they reported key benefits including observation of prayer rituals and promoting understanding to the family of the patient's condition. Other limitations included inability to support families longitudinally after the video session. In addition, it is unknown what continued support these families either required or obtained after the meeting ended; this was almost impossible to achieve during COVID due to volume, logistics, and complexity.

The ability to implement and iterate on this telemedicine use case under these conditions during a pandemic will have lasting effects for the palliative care shared decision-making care model. Before pandemic, we have often faced the challenge of delays and or inability to involve family members that are convalescent, distant, or simply unable to come to the hospital in a timely fashion to participate in family meetings. We intend to further study telemedicine for e-family visits, while studying both provider- and patient/family-reported outcomes using video technology for palliative care in the acute care setting.

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