Feature Article

Nurses' Perceptions of Medication Use at the End of Life in an Acute Care Setting

Juliana Howes, MN, RN, CHPCN(C)

Palliative care is frequently part of nursing practice in acute care settings. Research has evaluated nurses' general perceptions on end-of-life care in hospital and identified symptom management as a concern. The aim of this study was to explore nurses' perceptions regarding end-of-life medication use in an acute care setting to enable identification of variables that may impact symptom management and medication use at the end of life. Using a qualitative description methodology, 22 nurses from 8 medical and surgical units participated in 7 focus groups. Nurses were less likely to use medication when having difficulty identifying symptoms and when medications were not familiar. Other factors included conflicting perspectives and the emotional experience. Nurses felt that physicians were often reluctant to involve the palliative care team and experienced delays in obtaining orders or clarifying goals of care. Nurses felt uncomfortable with medication use when their feelings conflicted with family perspectives and found communication with families challenging overall. Nurses expressed a desire to achieve comfort but felt fears surrounding medication use. Fears included hastening death, adverse effects such as depressed respirations, and the possibility of pain pump errors or inappropriate use. Education and resources regarding symptom assessment and common end-of-life medications were identified as important.

KEY WORDS

acute care, medication administration, nursing, palliative care

It is well recognized that adequate symptom management is a critical component of end-of-life care. Despite this knowledge, it is still common to have unmet symptom needs at the end of life.[1] This problem is most severe in areas that do not specialize in palliative care, particularly in the acute care setting.[2,3] In the hospital setting, health care professionals often do not recognize that a patient is approaching end of life, as the focus has been on active interventions. This may result in missed opportunities to optimize symptom control. As acute care settings tend to focus on cure and active management, transitioning to a palliative care model can be unclear or seen as a failure.[4,5] In general, there is a lack of current research available that focuses on end of life in the acute care setting.

The literature does show that families are often dissatisfied with hospital care at the end of life and feel that there is a need for improved symptom control and communication with health care professionals.[6] Both staff and families report that the hospital environment may not be appropriate for end-of-life care because of high levels of noise, busyness, and lack of privacy as well as resource restrictions (eg, staffing levels and time).[6,7]

When attempting to address the hospital nurses' perspectives, there is also limited research. The literature has focused on the challenges nurses face with providing end-of-life care. Hospital nurses report feeling unprepared and often experience difficulties in meeting the needs of patients and families.[5] Nurses also have difficulty differentiating between an actively ill patient and a dying patient and frequently rely on physicians to make this distinction.[8,9] However, physicians are often reluctant to address goals of care or refer to specialized palliative care teams.[4] Nurses report experiencing moral distress when they identify a patient with palliative care needs but are not able to provide what the patient needs.[10] This can result in the nurse feeling powerless or helpless because of a perceived lack of influence over end-of-life care.[8,11]

Although nurses view symptom management as important, inadequate knowledge can be a barrier to appropriate medication use at the end of life.[12] Other factors that may hinder use of medications include fear of opioids, which includes fear of hastening death or causing negative effects such as depressed respirations.[2,13,14] The expectation is that nurses provide adequate medication for symptom control and advocate for changes when medications are not managing symptoms.[15] Currently little is known about actual medication use at the end of life, but this is recognized as a potential quality measure for end-of-life care.[16] Exploring the factors that impact medication use at end of life can assist in determining how to improve practice and overall outcomes. Focusing on the nurses' perspective is a strategy to begin understanding why medications may not

Juliana Howes, MN, RN, CHPCN(C), is clinical nurse specialist, Palliative Care, Mount Sinai Hospital, Toronto, and School of Nursing, University of Toronto, Ontario, Canada.

Address correspondence to Juliana Howes, MN, RN, CHPCN(C), Mount Sinai Hospital, 600 University Ave, Rm 11-205, Toronto, Ontario, Canada M5G 1X5 (jhowes@mtsinai.on.ca).

Funding for transcription and research assistant support was provided by the Temmy Latner Centre for Palliative Care in Toronto, Ontario, Canada.

The author has no conflicts of interest to disclose.

DOI: 10.1097/NJH.0000000000000192

be used and to understand some of the factors that result in unmet symptom needs at the end of life.

AIM

The aim of this study was to explore nurses' perceptions regarding the use of end-of-life medications on medical and surgical units in order to identify variables that may impact symptom management and medication use at the end of life. This understanding will help guide the development of interventions and resources to support nurses in using medications and providing end-of-life care in an acute care setting.

METHODS

A qualitative descriptive design was chosen as it is helpful when the goal is to gain insight into the informant's point of view and can provide helpful information prior to intervention development or refinement.[17] As a method for data collection, focus groups were chosen in order to provide insight into nurses' perspectives and collect data from multiple individuals. Group interviews are helpful as they can create a sense of belonging, which increases cohesiveness and creates a safe environment for sharing information. Interactions among participants can promote a setting where problems and possible solutions are discussed, which ties into the aim of this study.

Data Collection

Sampling was purposive as nonrandom sampling was required for representativeness.[18] Nurses were recruited by convenience as work duties and other commitments were potential barriers to participating in the study. Participants were registered nurses from 8 medical and surgical units. The study was advertised via e-mail and posters. The principal investigator visited each unit to describe the study, and volunteers signed up at that time. A further explanation of the study was provided prior to starting the interview process, and written consent was obtained. The proposed sample size was 24 nurses, who would attend 1 of 3 focus groups. The final number of participants was 22 nurses: 14 from general medicine, 7 from surgery, and 1 from cardiology/medicine.

Inclusion criteria were as follows: registered nurses from medical or surgical units working part time or full time for at least 6 months. Exclusion criteria included casual staff and registered nurses from other areas of the hospital (emergency, critical care, women and infant, psychiatry, and ambulatory care programs).

Ethics approval was obtained. Focus groups were conducted using a semistructured guide, as seen in the Appendix. An initial focus group with 5 participants, from 4 practice areas, was conducted by the primary investigator and a moderator. At that time, it was recognized that attending focus groups off of the unit was a barrier to participating in the study. An amendment was sent to the ethics board and approved. Six more focus groups/interviews were conducted by the primary investigator, who works as the clinical nurse specialist with the palliative care team, on individual units with 2 to 4 participants in each session. Sessions were audiotaped and were approximately 30 minutes in length. Audiotapes were transcribed by an outside company.

Data Analysis

An initial review of the transcripts was conducted to break the data down into small units and attach descriptors. Using QSR International's NVivo 10 qualitative data analysis software, these descriptors became the nodes for coding. Coding was done independently by the primary investigator and a research assistant. A coding comparison was performed to help clarify codes and ensure interrater reliability. After comparison, node definitions were refined, and transcripts were recoded independently. Final κ scores of the node content were found to be 0.6 or higher, which demonstrates good interrater agreement. Focus group data were compared to determine that across-group saturation was achieved and overall themes were identified. Field notes and observations were included in the analysis to provide further depth and assist in identifying themes.

FINDINGS

Nurses identified 4 main variables that impacted medication use at the end of life: perceived knowledge and skill, conflicting perspectives, resource and education needs, and the emotional experience.

Perceived Knowledge and Skill

Nurses expressed having a good working knowledge of available equipment and routes of medication administration. However, the computerized ambulatory drug delivery (CADD) pump was consistently identified as a piece of equipment that nurses did not feel confident using. These pumps are frequently used to assist with pain and symptom management.

> I think the CADD pump creates a lot of anxiety among nurses… is the order going to be put in properly? Am I going to have the CADD pump, the pump itself? I have to find someone to check it. Am I going to be able to put in? Because we don't get it so often, people get anxious; am I going to put the numbers in properly? So it's a lot of anxiety around it, you can feel.

Nurses had concerns about the appropriate use of medications and the potential for errors when ordering and programming pumps. The perceived lack of skill in managing

the pumps combined with a fear of inappropriate medication use resulted in significant discomfort for some nurses.

Knowledge gaps were most evident in regard to symptom identification and medication knowledge. If a nurse was having difficulty assessing a symptom or had difficulty differentiating from other symptoms, they tended to be more reluctant to administer medications.

> I think as long as it's warranted… if you can see clear behaviors or whatnot, then nurses are more inclined to give it and more comfortable giving it. It's when you can't recognize those symptoms or you can't see them or you can't justify it, that's when nurses I think will have issues giving [medication].

In regard to specific symptoms, nurses reported congestion, pain, and delirium to be the most distressing. Assessing pain in the nonverbal patient, distinguishing between delirium and pain, and determining if medications were causing additional symptoms were frequently mentioned challenges. These challenges left nurses feeling uncertain about which medication was appropriate and when to administer, such as opioids:

> For me, one of the symptoms would be delirium. When you give them the medication, you might give them too much and end up causing the delirium…. Also, if you don't want to give the medication, if they're in too much pain, that could actually cause the delirium as well. So that's a fine line, I don't know what to do. I don't want you to be in pain. I don't know. I have a hard time, like what to do in that kind of situation.

If a nurse was not familiar with a medication, there was a higher likelihood of the medication not being used or a reluctance to initiate the order. The combination of perceived lack of knowledge and fear of causing adverse effects contributed to their discomfort.

> I think at times justifying when to give a medication is sometimes an issue because a lot of our patients at end of life have decreased LOC [level of consciousness] or lethargic. You don't know whether you're snowing them or whether it's just they're in pain. Obviously, they're in agony but at the same time justifying when and giving a reason for giving it or not giving it.

Nurses also reported not always having a clear understanding of the indications for using medications in an end-of-life context. This resulted in multiple questions and comments during the focus groups.

> Scopolamine, what's the indication to give that to patients because sometimes I'm like, "Why are they getting it?" Just when they have a lot of secretions, they're having difficulty breathing?

> She ordered Haldol, but that's new to me. I wasn't really sure why Haldol was ordered…. Do many patients get agitated? I mean, he wasn't. I'm not really sure.

> People are not familiar with Nozinan [methotrimeprazine]. It would be the last thing that people will give if the patient is agitated.

Overall, medications were least likely to be used if the nurse was not familiar with the medication and experienced difficulty with symptom identification. These knowledge gaps were also partially attributed to the fact that palliative and end-of-life care are not routine on hospital medical and surgical units. Nurses reported feeling less comfortable providing care and reported inconsistencies in the delivery of care and use of medications because of the intermittent nature of these cases on their units.

> We don't have that many patients who are palliative but enough that it happens semifrequently, but it's a big gap between. I think there's a gap of consistency on how we deliver palliative care on our unit.

Conflicting Perspectives

It is well recognized that palliative care requires a team approach, which includes the patient and the family.[5] Nurses acknowledged that the family requires support along with the patient and also referenced them as members of the care team.

> A lot of times the families are there. They just stay at the bedside the whole time, and they'll notice things, like they're moaning, so that means they're in pain. So it's sort of an assessment between both the nurses and the family.

However, one of the most significant barriers for nurses when administering end-of-life medications arose when there were conflicting perspectives. Nurses often found that family's goals regarding symptom management and medication use were not in line with their nursing practice or caused ethical dilemmas.

> They think their family member is in pain, so you go in to assess and their resps [respirations] are only 6 a minute, and you can't give it, and trying to explain that to the family, they have a hard time with that. And I also feel at times they know what it does, and that's why they want me to give it. I feel like I'm stuck in a really bad position there.

There were a number of specific examples from nurses including discomfort when they perceived that families

were making requests that could be interpreted as a request to hasten death.

> …Sometimes family members ask if we can give them more to kind of… make the death essentially happen faster, which is awkward.

Another example that caused distress was when patients or family refused medications when there was apparent suffering.

> Both, because you still get families too that will say don't medicate, don't medicate, don't medicate, but you can clearly see when you go to turn the person, the person is in excruciating pain.

Nurses felt that their ability to use medications was at times hindered by the conflict between their own and family perspectives, and they often felt unsure how to resolve this discrepancy.

In regard to working with other health care professionals, nurses often feel unsupported when providing end-of-life care. This mainly related to difficulties communicating and conflicting perspectives with physicians. Nurses frequently mentioned themselves as advocates for patients and families. However, nurses reported frustration and/or helplessness when they identified an issue, and it was not addressed by the physician. The most frequent example was identification of a patient symptom or medication need and the physicians not responding in a timely manner or not providing appropriate orders.[14]

> Because there is a delay, right. For me it's a delay when you're asking and then, "Oh, I've got to go talk to…," they always have to go talk and discuss. Sometimes they don't make a decision right away. That's my frustrating part because meanwhile the patient's in pain, and you've got nothing to give, and he's/she's in pain. There's nothing you can do until you hear. And you feel helpless and the families, "Can't you give him something?" But they can't understand that you've already given the maximum, and you can't give the patient any more medication. So you're kind of stuck in the middle, and you look like the bad guy, and I feel like the bad guy.

Nurses felt that physicians should be more accessible and reported frequent difficulties obtaining appropriate medication orders for symptom management.

> As a bedside nurse, we're advocating for your patients on our own, and because it's a surgical floor, it's really hard to get in contact with our surgeons. Sometimes we go hours without a contact, and it gets to a point where you have to call in to the OR [operating room], and they get agitated, like irritated by us calling.

Conflicting perspectives were also evident between consultation services within the hospital. This caused confusion for nurses as there may be duplicate, conflicting, or delayed medication orders. Nurses reported that consult services could be helpful and supportive in addressing specific concerns, but the confusion and lack of communication impacted their ability to use medications appropriately.

> For me, it's when you get too many consulting services, and I'm not talking about specific medications. But when you get too many consulting services involved when palliative care should be the only one involved in end-of-life care, they contradict each other.

Nurses reported finding the palliative care consultation service helpful when a symptom or need was identified. However, nurses perceived that physicians are often reluctant to initially involve the palliative care team.

> Sometimes there's resistance on the part of [the doctors] like there are certain patients whose care I have thought I think palliative care should be involved in, and sometimes it's like no. And it's not even asking the patient if he/she would like to have palliative care involved. It seems like there's a reluctance to open that dialogue until it's very evident that the patient is going to die. Which I don't know, why not involve them earlier, it seems very helpful to talk to patients about that stuff. It's on a lot of these people's minds, dying.

Overall, nurses felt that palliative care consultation enabled them to access and use the appropriate medications for patients at the end of life but had a sense that the attending physician team felt potentially threatened.

> Consults, it adds to the conversation in a positive way. There's always this fear that medicine has asked to consult, that it's like, "Oh, we're relinquishing control." Instead, it's just enhancing the conversation to be patient centered.

Resource and Education Needs

There were 3 main areas identified by nurses to assist in improving their knowledge, skills, and comfort when using end-of-life medications—education, support/mentorship, and material resources.

There was general agreement that education would result in improved comfort with medication use, but there was a lack of consensus on the best approach. A variety of educational methods were identified as being helpful, including full-day workshops, unit in services, online courses, and e-mail. This concept is supported by the literature. When formalizing an education program, incorporating several methods of dissemination would likely

result in increased confidence in using medications and providing end-of-life care.[19]

> I would love some education around our patients specifically and what all of these medications are for, how to help the patient, how to explain it, what to look for, how to help the family members understand what it's all about.

> I think symptom management is a big thing that we need education on and how to recognize symptoms and how liberal or conservative to be with medication.

> I think knowledge on medications that we don't standardly have on the unit is huge…. Education on that is good. If we want to implement other medications, I think it's great; I think, however, we can provide the best care is optimal, but nurses will want education too to feel comfortable.

Nurses indicated that education would need to include information on symptom assessment and that certain symptoms would require additional attention to ensure that these symptoms are identified and appropriate medications are being used. For example, dyspnea was infrequently identified as a symptom, and there were questions about how to manage labored breathing.

> I think one of them is breathing too because at the end of life that changes, so you wonder what you're supposed to do. Are you supposed to give them oxygen for comfort?

In conjunction with education, nurses identified support from colleagues as an important area to improve their confidence with end-of-life medications. Team members most frequently identified as helpful included the team leader/charge nurse, allied health, and the palliative care team. Specific examples included assistance with using equipment, such as the CADD pump. Nurses identified that the combination of support from colleagues with expert pump knowledge and educational resources would improve their comfort with administering medications via the CADD pump.

> Usually, most of the senior nurses are good with it. Some people tend to have more experience with the CADD pump than others, so we always go with someone who really knows the CADD pump.

Beyond the focus on medication use, nurses consistently reported not feeling that they had the skill or comfort level to effectively communicate with families and felt that mentorship helped demonstrate how to have difficult conversations with families.

> …and just knowing the right thing to say to the family. I never know what the right thing is to say.

Nurses felt that additional material resources were needed in 2 areas in order to support medication use at the end of life, the first being tools to assist with understanding medications and appropriate doses, such as a pocket card or flowchart. Nurses also felt this would help when discussing medication needs with physicians.

> I think if we had a little resource book or something that we could leave on the unit that would have the end-of-life-care set, [medications] that are on it and then an explanation on what they do, what they're used for, and what's best. It might be helpful for both physician and nurse decision making.

The second resource was materials that could be shared with families to assist with communication about medications and in the overall discussion regarding end-of-life care. Nurses found not knowing what to say or having a lack of information to provide to be a major barrier.

> But sometimes they're still staring at you like, "And?" That's all I know is just that. I have no backup information.

> I think the most difficult is trying to help the family through it and trying to help them understand the progression. There's not a lot of information to give them.

Emotional Experience

End-of-life medication use is impacted by nurses' emotional experience of caring for patients at the end of life. This theme is difficult to pull out as it is entwined throughout the previous themes, but it is important to recognize its impact on medication use. Nurses' feelings around end-of-life care are partly based on previous, often personal, experiences with death and dying, which can be positive or negative in nature.[11]

> That's my personal thing. I feel as if the family clearly appreciates that you're being empathetic and obviously acknowledging the fact that you're going through this process. But I think, just internally, I have a hard time because I feel as if nothing is going to be okay. So personal issues, never mind.

> I honestly don't know because I had to learn through trial and error. I had to experience it from watching family members die. A couple of my family members, like my grandmother, died beautifully; the other one didn't, so I'm going by my personal things.

Some nurses alluded to the fact that their own feelings regarding end-of-life care impacted their perception of families and their reactions to the situation, including use of medications.

> It's easier if the patient and family have made choices that align with your own values, I think.

The majority of nurses expressed a desire to ensure patient comfort and tried to consider the impact of medication use when providing care. However, weighing the pros and cons of using end-of-life medications often resulted in uncertainty. While nurses expressed a desire to achieve comfort, they also had fears surrounding medication use. The 2 main fears identified were the possibility of hastening death and the potential of causing adverse effects, such as depressed respirations. These fears resulted in more cautious use of medications or a reluctance to initiate medications at all.

> …I find even if we have medication ordered, it's not always used… because sometimes people are afraid to give too much medication, afraid to be the one giving the last one when the patient passes.

Nurses expressed feelings of distress, as they felt a sense of responsibility regarding appropriate medication administration. Examples included struggling to know how much medication to administer to balance sedation versus pain or to avoid causing delirium. Nurses also felt that they may be impacting a patient's time of death, which gives a potentially false sense of control over prognosis and results in a heavy burden for nurses to bear.

> There are some people who purposely won't medicate. It's not that they purposely, it's just because they think they're the last one to give the medication that's going to send them over…

As previously described, nurses also experienced distress when suffering was identified but they were not able to administer adequate medications to relieve symptoms.

> Yeah, ethically, it would [be hard]. Like this patient is in severe pain, but we can't give her anything else and trying to reassure her, but it's a false reassurance.

Overall, there was a high level of personal impact, positive or negative, that influenced nurses' perceptions of medication use. These findings also indicate that there is a larger impact when providing end-of-life care with a high potential for moral distress, which would require further exploration.[20]

DISCUSSION

These findings outline hospital nurses' perspectives about the use of medications at the end of life. Nurses identified their perceived knowledge and skill, conflicting perspectives with other people and teams, and the emotional experience of providing end-of-life care as variables impacting medication use. Nurses felt that education, support, and material resources would assist, and potentially improve, their practice.

Gaps in symptom identification and knowledge regarding end-of-life medications had an impact on the likelihood of medication being used. Education focusing on symptom assessment and medication indications and dosing, in conjunction with mentoring and a supportive environment, may lead to nurses feeling more comfortable with end-of-life care.[21]

Conflicting perspectives demonstrates that communication also requires attention, as nurses experienced challenges in interactions with patients, families, and other team members. Casey et al[11] found that staff who felt they lacked knowledge or skills were more reluctant to discuss death and dying. Nurses in this study reported that a lack of education and comfort with communication resulted in staff avoiding end-of-life care discussions.

Difficulties with physician communication resulted in feelings of helplessness and the potential for unmanaged symptoms. Nurses often experience guilt at being unable to relieve suffering when patients died with unmanaged symptoms.[14] Nurses report more positive experiences and clearer treatment plans when caring for patients at the end of life when there is a sense of collaboration and communication with colleagues.[5]

It is clear that fear surrounding medication use remains a significant barrier to symptom management at end of life. We found that fear of hastening death and causing adverse effects reduced the likelihood of end-of-life medications being used, and this is consistent with previous research.[2,13,15] Brorson et al[14] also found that nurses experience ethical dilemmas with medication use. They found that nurses did not want their patients to suffer, but felt anxiety at being potentially responsible for the patient dying earlier than they might have without the medication. In addition, nurses discussed several situations that caused distress including unresolved patient suffering or perceived inappropriate use of medication. This distress requires further exploration as previous research has shown that moral distress can contribute to burnout or may cause negative association with the provision of palliative care.[5,8,20]

Education and material resources have been frequently identified as tools to improving end-of-life care, but it is recognized that this knowledge also needs to be translated into practice.[3,7] Areas of need most frequently identified were consistent with these findings, including pain and symptom management and communicating with patients and families.[11,13,22] Specific strategies in the literature include education targeted at improving nurses' assessment and documentation skills in order to better recognize and report symptoms, use of pocket cards as reminders, and

comfort care order sets to reinforce and guide care plans.[1] Other areas of focus included hospital policies and procedures that support end-of-life care and improved team communication.[5]

Based on these findings, immediate plans include purchasing new, more user-friendly CADD pump with hands-on training to improve confidence in using the pumps, as well as ensuring an expert resource person is available for troubleshooting. Education resources will be formalized and presented in several formats. Initial first steps include establishment of a monthly e-mail containing palliative nursing tips and the inclusion of an end-of-life e-learning module as part of the mandatory nursing curriculum. Longer-term plans include development of an "in the moment" learning strategy to support nurses when caring for patients at the end of life and establishing a palliative nurse champion program to encourage mentorship and a supportive environment.

A frequent request from participants was medication resources to help guide nursing practice and to assist with providing suggestions to physicians. A pocket card with symptom assessment tips and common end-of-life medications including dosing and indications will be trialed. Nurses also reported using the intravenous drug therapy guidelines posted by the pharmacy to help guide medication practices. These guidelines will be updated to include a palliative information section for relevant medications. A palliative-specific drug guide may also be indicated.

Previous research has focused on nurses' general perceptions regarding palliative care in an acute care setting. This research adds to the literature by examining how nurses' perceptions may impact symptom management and medication use. The majority of quality measures rely on nursing indicators to assess end-of-life care, such as documentation of symptoms.[23] It is assumed that nurses have a good understanding of symptom assessment and available medications, but a lack of knowledge and fears surrounding medication use may impact the identification of issues and the validity of available data. By understanding the issues, it may be possible to determine more appropriate quality indicators and how to address the underlying issues.

Further work will be required to evaluate our proposed interventions and to determine their impact on patient/family satisfaction with symptom management and medication use at the end of life. It will also be beneficial to further explore and implement strategies for psychosocial support for nurses who are providing end-of-life care in the hospital, as there is an element of distress that may be impacting their well-being.

LIMITATIONS

The primary researcher was the clinical nurse specialist who works with the palliative care team. There is a potential for bias as nurses were aware of the researcher's role in the hospital. This might have altered their responses. The likelihood is nurses would respond more positively when talking about the palliative care team and their role in providing care.

These focus groups were limited to 1 academic health center in Toronto, Ontario, Canada. The results may not be generalizable to other institutions or geographical areas. Overall, the findings are consistent with previous research and likely provide some insight to the nursing experience. However, certain clinical scenarios, available medications, and equipment may differ.

CONCLUSION

Proper identification of symptoms is a necessary first step to appropriate medication use in end-of-life care. It is also essential to have medications available with clear indications in order to improve the likelihood of medications being used. Supporting additional education and providing mentorship will help address nurses' skills in assessment and knowledge regarding end-of-life medications. Helping nurses work through their own feelings about death and dying will assist in identifying where conflicting perspectives are occurring. Exploring models of end-of-life care and focusing on communication strategies will likely have a positive impact when nurses are working with patients and families at the end of life. Determining strategies for working with physicians is also necessary to reduce barriers in accessing appropriate orders and services such as the palliative care team. Reviewing quality indicators, including effectiveness of pain and symptom management and staff and family satisfaction, will be required to ensure useful data are obtained and to measure the impact of interventions aimed at improving end-of-life medication use. Using metrics will provide important data for measuring the quality of end-of-life care in the hospital.[8,17] It is important to note that nurses continue to experience fears surrounding medication use and are likely to experience moral distress when providing end-of-life care. Further research exploring how nurses' attitudes and feelings about end-of-life care impact patient outcomes and determining how to best support nurses in providing end-of-life care in the hospital would be beneficial.

Acknowledgments

The author thanks the nursing staff at Mount Sinai Hospital, Toronto, Ontario, Canada, for their perspectives and Bhadra Lokuge and Dr Ramona Mahtani for their assistance with data analysis.

References

1. Hermann CP, Looney SW. Determinants of quality of life in patients near the end of life: a longitudinal perspective. *Oncol Nurs Forum.* 2011;38(1):23-31.

2. Lindqvist O, Lundquist G, Dickman A, et al. Four essential drugs needed for quality care of the dying: a Delphi-study based international expert consensus opinion. *J Palliat Med*. 2013;16(1):38-43.
3. Walling AM, Asch SM, Lorenz KA, et al. The quality of care provided to hospitalized patients at the end of life. *Arch Intern Med*. 2010;170(12):1057-1063.
4. Reid C, Gibbins J, Bloor S, Burcombe M, McCoubrie R, Forbes K. Healthcare professionals' perspectives on delivering end-of-life care within acute hospital trusts: a qualitative study [published online ahead of print November 19, 2013]. *BMJ Support Palliat Care*. 2013.
5. Gagnon J, Duggleby W. The provision of end-of-life care by medical-surgical nurses working in acute care: a literature review. *Palliat Support Care*. 2014;12(5):393-408.
6. Robinson J, Gott M, Ingleton C. Patient and family experiences of palliative care in hospital: what do we know? An integrative review. *Palliat Med*. 2014;28(1):18-33.
7. Gardiner C, Cobb M, Gott M, Ingleton C. Barriers to providing palliative care for older people in acute hospitals. *Age Ageing*. 2011;40:233-238.
8. O'Conner M, Bloomer MJ, Endacott R, Cross W. The 'dis-ease' of dying: challenges in nursing care of the dying in the acute hospital setting. A qualitative observational study. *Palliat Med*. 2013;27(8):757-764.
9. Mahon MM, McAuley WJ. Oncology nurses' personal understandings about palliative care. *Oncol Nurs Forum*. 2010;37(3):E141-E150.
10. Rushton CH, Kaszniak AW, Halifax JS. A framework for understanding moral distress among palliative care clinicians. *J Palliat Med*. 2013;16(9):1074-1079.
11. Casey D, Murphy K, Leime An, et al. Dying well: factors that influence the provision of good end-of-life care for older people in acute and long-stay care settings in Ireland. *J Clin Nurs*. 2011;20(13-14):1824-1833.
12. Clark JB, Sheward K, Marshall B, Allan SG. Staff perceptions of end-of-life care following implementation of the Liverpool care pathway for the dying patient in the acute care setting: a New Zealand perspective. *J Palliat Med*. 2011;15(4):468-473.
13. Barnett ML, Mulvenon CJ, Dalrymple PA, et al. Nurses' knowledge, attitudes, and practice patterns regarding titration of opioid infusions at the end of life. *J Hosp Palliat Nurs*. 2010;12(2):81-88.
14. Brorson H, Plymoth H, Örmon K, Bolmsjö I. Pain relief at the end of life: nurses' experiences regarding end-of-life pain relief in patients with dementia. *Pain Manage Nurs*. 2014;15(1):315-323.
15. Reynolds J, Drew D, Dunwoody C. American Society for Pain Management Nursing position statement: pain management at the end of life. *Pain Manag Nurs*. 2013;14(3):172-175.
16. Raijmakers NJ, van Zuylen L, Furst CJ, et al. Variation in medication use in cancer patients at the end of life: a cross-sectional analysis. *Support Care Cancer*. 2013;21(4):1003-1011.
17. Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health*. 2010;33:77-84.
18. Sargeant J. Qualitative research part II: participants, analysis, and quality assurance. *J Grad Med Educ*. 2012;4(1):1-3.
19. Frey R, Gott M, Raphael D, et al. Clinical staff perceptions of palliative care–related quality of care, service access, education and training needs and delivery confidence in an acute hospital setting. *BMJ Support Palliat Care*. 2014;4(4):381-389.
20. Johnson SC, Gray DP. Understanding nurses' experiences of providing end-of-life care in the US hospital setting. *Holist Nurs Pract*. 2013;27(6):318-328.
21. White KR, McClelland LE, vander Wielen LM, Coyne PJ. Voices from the bedside: palliative nurses' perceptions of current practices and challenges. *J Hosp Palliat Nurs*. 2013;15(6):360-365.
22. White KR, Coyne PJ. Nurses' perceptions of educational gaps in delivering end-of-life care. *Oncol Nurs Forum*. 2011;38(6):711-717.
23. Dy SM, Lorenz KA, O'Neill SM, et al. Cancer quality—ASSIST supportive oncology quality indicator set: feasibility, reliability, and validity testing. *Cancer*. 2010;116(13):3267-3275.

APPENDIX

FOCUS GROUP GUIDE

1. What patient situations or symptoms are most difficult to manage at the end of life?
2. What are the common medications used for patients approaching end of life on your unit and what symptoms are they used for?
3. Do you have any concerns about medication administration at the end of life?
   - Prompt: Are there too many or too few medications available or symptoms that occur where no medication is available?
   - Prompt: Are there times when it is not appropriate to give medications at the end of life?
   - Prompt: How do you feel about giving medications to patients with a decreased level of consciousness at the end of life?

4. How do you decide when to give a breakthrough medication and if the dose available is appropriate?
   - Prompt: What resource do you use to obtain information about the indications for use and how to administer end-of-life medications?

5. Do you have a preferred route of administration when giving end-of-life medications (subcut/sublingual/intravenous/per rectal/computerized ambulatory drug delivery [CADD])? If so, can you explain why?
6. What, if any, are your concerns about the use of CADD pumps?
   - Prompt: What do you think about the CADD documentation sheet?

7. Midazolam is often used subcutaneously for terminal agitation, respiratory distress or catastrophic bleeds at end of life. How do you feel about using this medication?
8. How do you feel about using Tylenol suppositories at the end of life?
9. What do you think about using bowel interventions at the end of life?
   - Prompt: If appropriate, what interventions would you use?

10. Are there other medications not previously mentioned that would be useful in providing end-of-life care?
11. What resources are available to assist you when talking to a physician about medications for a patient approaching end of life?
   - Prompt: What do you think about the preprinted order set on Powerchart?
   - Prompt: What resources would be helpful that are not available?

12. Do you have any final comments that did not get addressed in the previous questions?