Interprofessional Communication in Neuroscience Intensive Care Unit for Palliative Care Patients

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Abstract

Background: To determine if a three-pronged toolkit is useful in facilitating communication regarding end of life care in a neuroscience intensive care unit (NICU).

Methods: This was an educative research strategy with pre and post-implementation surveys of family members and healthcare workers in the NICU. ICU patients for palliative care with the following criteria: Glasgow Coma Scale (GCS) less than 5 with sedation; severe hypoxic ischaemic encephalopathy; severe intracerebral haemorrhage; severe traumatic brain injury as deemed unsalvageable by the neurosurgeon were chosen for a three-prong communication toolkit to be used between medical workers and family members.

Results: Healthcare workers found a significant improvement in communication with family members in terms of clarity of goals of care. There was no statistically significant difference in the family satisfaction score pre- and post-implementation of the toolkit.

Conclusions: We conclude that the toolkit is useful in assisting healthcare workers communicate with family members and in achieving clarity in terms of goals of care for patients whose death is imminent.

Keywords: Palliative care, Interprofessional communication, Neurocritical care, Toolkit

Introduction

Care of a patient in the intensive care unit (ICU) often requires multiple teams of healthcare workers, including the physicians, nursing and allied health and any miscommunication could lead to inadvertent harm to patients. It has been shown consistently that interprofessional communication and teamwork have been linked directly to positive patient care and family outcomes including reduction in ICU length of stay and decreasing the use of undesired or ineffective treatments [1-4].

Many patients spend their last few moments in the ICU where further life-prolonging measures have been deemed to be futile. Patients, relatives and physicians are often at a loss when the care changes focus to palliation, when dying is imminent. This is especially true in the neuroscience intensive care unit (NICU) where a major trauma or bleed is catastrophic and could suddenly render a previously healthy individual unsalvageable.

Physicians may find it difficult to break bad news or broach the subject of palliation. Without the physicians' lead, nursing and allied health may find it difficult to discuss patient care with the families. Families may not fully comprehend medical jargon, understand the complexities of ICU patient care or be at various stages of grief [5].

It has been shown that communication regarding end of life issues is especially difficult in an Asian society [6], where physicians often find it easier to continue life-sustaining treatment; rather than discuss with families and withhold or withdraw treatment; due to various reasons such as ethicolegal and religious issues.

Palliative care is not an explicit aspect of practice model that dominates in the ICU setting. Since effective communication has been identified as an important aspect [7] that holds interprofessional teams together and facilitates coordination of care for patients and families, it is important that this aspect of interprofessional collaboration is investigated further.

A literature search was performed to look for any tools that could be used to facilitate interprofessional communication. We found the palliative tool kit developed by Nelson et al. [8] consisting of 3 tools: (1) A family meeting planner; (2) A meeting guide for families and (3) A family meeting documentation template, to be potentially useful. There is however, a difference in Western versus Asian values and culture [9]. Applying the toolkit to our local population with various races and languages may be difficult as well. We thus sought to assess if this tool kit was applicable to our local context through a pilot study and determine if we could adopt it in our neuroscience ICU.

Methods

We used an educative-research strategy. This refers to the collaborative inquiry process that focuses on the examination and transformation of ideas and practices through dialogue and action [10]. The primary investigator and co-investigators will work with healthcare practitioners who care for palliative patients in the ICU, with the goal of developing and changing ideas to suit our local context and cultural differences, and changing local institution practices with concurrent phases of ongoing analysis, dialogue and reflection. The local institutional review board approved waiver of consent for this pilot study.

We aimed to recruit 40 patients within a 6 months period for the study. The nurses screened ICU patients for palliative care with the following criteria: Glasgow Coma Scale (GCS) less than 5 with sedation; severe hypoxic ischaemic encephalopathy; severe intracerebral haemorrhage; severe traumatic brain injury as deemed unsalvageable by the neurosurgeon. The patients were then flagged for nurse-physician collaboration using the palliative tool kit in the ICU.

The ICU palliative tool kit is a three-prong approach [8] consisting of:

(1) Family meeting planner;

(2) Guide for families;

(3) Family meeting documentation template.

ICU family meeting is an essential forum for communication and decision-making about appropriate goals of care for critically ill patients. Inter-disciplinary ICU team meetings offer a broader range of knowledge, perspectives and resources to support distraught families. Early family meetings to determine the goals of care have important outcomes for families, patients and for healthcare systems [7].

Implementation of family meetings during the first 5 days for patients at highest risk of poor outcomes achieved significant reduction in ICU length of stay and conflict over goals for care. In this project, we aimed to organise and facilitate a multidisciplinary family conference for the above subgroup of patients by day 5 of ICU stay [2,5].

The ICU family meeting planner is an administrative tool used by the ICU team to track essential steps before the family conference. It serves to align everyone on to the same page, providing a timeline for events, thus focusing attention on the patient for discussion of goals of care. Nursing took a primary role in completing this tool, as they were the ones closest to the families and in consistent contact with them.

Preparation of the family can help to maximize the efficiency of a family meeting in the ICU. The guide for families gives a checklist of important categories of information about the patient's illness and treatments, so that the family members can review what they know (and don't) and be ready to report, verify and update this information at the meeting. This also focuses on the family concerns and feelings, which will allow the family to feel that they have actively participated in decisions about the patient's care. It also directs the attention to the patient's wishes, which both the family and ICU team will need to respect.

A standardised family meeting documentation template will help to organise the central venue for communication among all involved in the patient's care, even for those who are absent. Overall goals of care are established after involving the medical team, families, and sometimes patient. It provides a step like guide to clinicians to assist in communication with the families, so that no important information is missed in the discussion.

We felt that these tools will improve the efficiency and effectiveness of communication and optimise nurse-physician collaboration, hence mitigating the risk of miscommunication [8]. We conducted the project in conjunction with implementation of family meeting quality measures adapted from the Voluntary Hospital Association (VHA) care and communication bundle [11].

Results

The patients were similar in terms of their demographic distribution pre- and post-implementation of the toolkit. We found from the team survey that the toolkit resulted in a significant improvement in communication with members of the clinical team to clarify on goals of care (Median (IQR): 8.00 (2.00) versus 9.00 (4.00), p = 0.029); assessing the family's knowledge of the patient's wishes and treatment goals if the patients lacked the decision-making ability (Median (IQR): 7.00 (2.00) versus 9.00(2.00), p = 0.011); and establishing realistic and appropriate goals of care in consultation with the patient and/or family (Median (IQR): 8.00 (1.00) versus 9.00 (2.00), p = 0.002).

For family satisfaction survey, there was no significant difference in median score (satisfaction with ICU experience and decision making) pre and post-implementation of the toolkit. Families were generally happy with the care of the patients and themselves pre- and post-implementation of the toolkit. There was no statistically significant difference in their satisfaction with the care of patients and the ICU environment pre- and post-implementation of the toolkit.

Independent T test was used to test the difference in ICU stay before and after implementation of the toolkit as the normality assumptions were met. The length of stay post intervention was longer compared to pre (Mean (SD): 4.37 days (3.12) versus 8.25 days (5.73), p=0.009). Furthermore, there was a significant difference in the days taken to address cardiopulmonary resuscitation (CPR) preference as well, where participants took longer to address their CPR preference after the intervention compared to before. (Median (IQR): 0.00 days (1.00) versus 1.00 day (2.00), p = 0.029).

Discussion

Palliative care as a discipline has developed greatly over the last 20 years. However, it is still a relatively new discipline in the ICU where the focus is usually on actively resuscitating patients. Over the last 10 years, there have been multiple papers describing how to introduce palliative care in the ICU and how to integrate it into daily rounds. [1-3,5] The toolkit developed by Nelson et al. [8] is one useful in aiding healthcare workers in their communication with families as well as interprofessionally between the various groups of healthcare workers.

From our study, healthcare workers found the toolkit useful in aiding their family discussions and in achieving clarity on the goals of care. This is because the toolkit provides a systematic approach to communicating with the family; allows the family to pen down their questions and thoughts and assists in organising a family meeting to discuss goals of care [8].

In the Asian culture, it is often difficult to broach the subject of palliation, much less withdrawal or withholding therapy [6]. Families often do not know what the last wishes of a patient are. Burdened with guilt, they tend to request for the medical team to do everything they can to save the patient. This puts a huge emotional load on the families and a drain on scarce ICU resources. As a result of experience with such families, healthcare workers often find it easier to continue managing an unsalvageable patient rather than proactively broach palliation. It is often too late when healthcare workers discuss end of life with families, resulting in regret and guilt or anger on both sides. The family meeting planner serves as a timely reminder for healthcare workers to focus on identifying the key spokesperson and then discuss end of life issues regarding the patient by day 5 of ICU stay. This would then allow everyone to focus on what is important to the patient in his/her last days of life.

The toolkit is generalizable and easily applied in our local cultural context. In patients who are terminally ill and neurologically impaired, we are unable to discuss with them their values in life. This is especially true in the Asian society where families are often counseled with regards to how a patient would have wanted his end of life to be [9]. The toolkit is thus useful in guiding our conversations with the family and assisting us in managing their relatives' end of life issues.

There was no statistically significant difference in family satisfaction pre- and post-implementation of the toolkit in terms of care of the patient and satisfaction with the decision making process. This may be due to the fact that our medical teams were already doing well in their communications with families and families were generally happy regarding the care of the patients. However, it could also be that the families had no chance to express their dissatisfaction based on the table which only has ratings from good to excellent. There could also be a language barrier in the way the form was interpreted in non-English speaking family members.

The increased duration of ICU stay post intervention was due to 1 patient and family who declined speaking to the medical team regarding the end of life goals of care. This family kept delaying the family meeting, resulting in an outlier as a result.

Our study has several strengths. To our knowledge, the use of the toolkit in the Asian context has not been previously explored. We studied objective as well as subjective outcome measures such as length of ICU stay, family and healthcare workers' satisfaction with the use of it. This allows a holistic view to the use of the toolkit. Our study has its own limitations as well. It was limited by the small numbers involved, which makes it difficult to show a statistically significant difference in the satisfaction score. There could have been bias in choosing English-speaking families for the study as the forms were all in English. This could result in a misinterpretation of the results in our local context, where we have a multilingual, multiracial community.

The adoption of the toolkit into our ICU has potential implications for managing end-of-life conversations with families. Its use could be spread to other ICUs in Singapore as there is significant benefit for the healthcare community in approaching end-of-life discussions with families. With early discussion of goals of care, there might be a reduction of length of ICU stay, thus reducing the burden on healthcare resources. As we work to develop care of the terminally ill in ICU, the toolkit serves as a timely reminder to align everyone involved in terms of the goals of care for the patient.

Conclusion

The three-prong toolkit is useful to assist healthcare workers in conducting family conferences when breaking bad news or when identifying the goals of care. It is generalizable to the local population and allows for a systematic guidance in conducting family meetings. Interprofessional communication is also enhanced as the various medical teams involved converge before the family meeting to discuss care of the patient and document the process.

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