

Current Opinion

Palliative Care in the Surgical Intensive Care Unit: Where Least Expected, Where Most Needed

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Despite dramatic improvements in survival from a broad range of afflictions seen in the surgical critical care unit, the problem of suffering in its many forms and its long-term consequences will remain as long as mortality characterizes the human condition. Palliative care in the surgical intensive care unit is an extension of time-honoured surgical principles and traditions that aims to relieve suffering and improve quality of life associated with serious illness as an end in itself or as part of treatment to save and prolong life. [*Asian J Surg* 2007;30(1):1–5]

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The challenge

The surgical critical care unit has established itself as the ultimate theatre for knowledge, skill, and judgement in the care of patients with critical and life-limiting illness and injuries. Despite dramatic improvements in survival from a broad range of afflictions seen in this venue, the problem of suffering in its many forms and its long-term consequences will remain as long as mortality characterizes the human condition.

What patients and families expect of us

The testimony of patients and their families is sobering when we ask ourselves if we are up to the task of managing suffering as well as we manage disease: 55–75% of medical intensive care unit (ICU) patients with cancer reported severe pain, discomfort, anxiety, hunger or thirst, and in another study,¹ 50% of ICU patients reported pain, with 15% describing it as severe.² Procedures such as arterial puncture and endotracheal suction were associated with

the greatest pain.³ The SUPPORT study in 1995 also documented the deficiency in pain management in seriously ill patients as well as a disturbing disregard for patients' advance directives.⁴ The population at risk for these problems is growing in some settings: in the United States, of those who die in hospital, half are cared for in the ICU within 3 days of death, one third spend at least 10 days in the ICU, and a total of 540,000 ICU deaths are projected per year.

Patients with serious illnesses have indicated that they want pain and symptom control, avoidance of inappropriate prolongation of the dying process, a sense of control, relief of burdens to their families, and strengthening of relationships with loved ones.⁵

In a study of 475 families conducted within 2 years following a member's death from progressive life-limiting illness, families identified honest information, privacy, being listened to, and respect for their loved one's wishes as among their top wishes for care.⁶ Families' need for direct communication from hospital personnel is particularly pressing given that only 5% of ICU patients can

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report their end-of-life care preferences, symptoms, or participate in treatment decisions.⁷

Palliative care defined

Palliative care offers an interdisciplinary approach that can respond to these needs without undermining the goals of critical care which are the reversal of illness or injury and the restoration of health through the use of sophisticated, up-to-date, and technologically-based medical and nursing care provided to patients facing life-threatening illness or injury. Conventional wisdom that suggests aggressive pain management or comfort care might cause derangement in haemodynamic or respiratory function are no longer founded. Attention to the relief of suffering is always possible in parallel with good critical care. Further evidence suggests that if this is addressed in the ICU, outcomes are actually improved.

Palliative care is defined as interdisciplinary care that aims to relieve suffering and improve the quality of life for patients with advanced illness or injury and their families. It can be offered as the sole aim of care or simultaneously with all other medical treatment regardless of prognosis. The most striking example of palliative care philosophy applied to day to day surgical critical care can be seen in a burn unit. Burn care taught surgeons two lessons directly relevant to palliative care: (1) team work improves survival and quality of life and (2) huge doses of morphine are sometimes necessary for proper management but do not lead to addiction.⁸

Four essential elements of surgical ICU palliative care

The four essential elements of surgical ICU palliative care are: (1) communication; (2) withholding and withdrawing of organ systems support; (3) pain and non-pain symptom management; and (4) bereavement support.⁹ These elements can and should be integrated into critical care practice so that the transition from a curative to a palliative goal of care, when necessary, occurs seamlessly.

Communication

Communication, particularly with physicians, is as much valued by families of critical care patients as medical care, and they use the quality of communication as an index of the overall quality of care.¹⁰ The critical care nurse shares

this important responsibility as a mediator and communicator between surgeon and family in the ICU.^{11,12} Vernacular, direct language without judgements, e.g. “He’s at peace now” or “She’s in a better place”, is more helpful. Bad news is best given by the most senior person possible and should avoid ambiguity such as informing a patient’s family that a patient is “brain dead” when they are, in fact, dead.

Much has been written about the approach to clinical communication, particularly for bad news, since Robert Buckman’s classic work, *How to break bad news*,¹³ though giving unwelcome news can be best summarized for surgeons by comparing it to performing an operation:¹⁴ it has to be well timed, occur in the proper venue, with appropriate assistance and back-up, with the patient’s permission, after verification of critical facts, and completed with proper closure and plans for aftercare. All of this must be done gently, efficiently, and benevolently.

Withholding and withdrawing of organ systems support

Communication with patients and families in the surgical ICU frequently broaches the subject of withholding or withdrawing organ systems support.

Most deaths in the intensive care setting are associated with withholding or withdrawal of life support.⁷ “Life support”, the commonly used term instead of organ systems support, is an unwieldy and vague concept that can create a dilemma for the medical decision maker by its inference that “life” is being taken away when life support is withdrawn.

In addition to these semantic difficulties, there is prevalent misunderstanding among critical care clinicians about the ethical and legal equivalence of withholding and withdrawal of life support treatment.¹⁵ In actual practice, almost half of ICU patients have life support withheld or withdrawn, and an even greater percentage forego cardiopulmonary resuscitation.¹⁶

Palliative care consultation has been shown to mitigate situations in which there is perceived ethical and legal ambiguity or in cases of prolonged non-beneficial life support.¹⁷ Usually, there is no ethical or legal problem with established principles of palliative care or care at end of life. The United States Supreme Court’s decisions are clearly supportive of the intent and methods of palliative care,^{18,19} though the United States courts have provided less clear guidance on questions of medical futility.²⁰

Other salient ethical issues within the scope of surgical ICU palliative care intervention include terminal sedation,

the balance between treating the patient and treating the patient's family, indications and approach to pharmacological paralysis, and the presence of family members during resuscitation.

Pain and non-pain symptom management

There are moral and biological imperatives for pain control for all patients, but particularly for those who are most vulnerable as those in the ICU. Surgery as we know it would not exist without a solid foundation of analgesia, and surgery as we would want it to be will not exist without extending this foundation to our areas of responsibility beyond the operating room. Increasing evidence demonstrates the pernicious effect of continuous excessive sympathetic stimulation such as occurs in unrelieved pain and benefits that occur with regional and systemic sympathetic blockade.^{21,22} In addition to this improved analgesia improves functional capacity whether limited strictly to inspiratory capacity or to more global function, including the individual's ability to concentrate and interact. If the physiological and functional arguments are not enough, relief of patients, family, and those nursing personnel continuously in the presence of the patient is enough justification for improved pain control. Beyond the immediate reasons for pain control, the long-term adverse effects of poor pain control are to be considered— inadequate pain relief and sedation in critically injured burn patients with prolonged ICU stays has been associated with higher incidences of stress and post-traumatic stress disorders.²³

Opioids (morphine, hydromorphone, fentanyl) are the favoured analgesics for relief of moderate to severe pain in the critical care setting. Meperidine should not be used because of its low efficacy and the potential toxicity (grand mal seizures) associated with accumulation of its metabolite, normeperidine. General principles for analgesia consists of anticipatory, not reactive, dosing; round-the-clock dosing for continuous pain syndromes; anticipation of drug side-effects and changes in drug clearance; and availability of "breakthrough" or "rescue" dosing in addition to scheduled doses. For analgesics received hourly, consideration should be given to acutely administering an increased dose prior to extubation of ventilated patients. Adjuvant agents (steroids, tricyclic antidepressants, anti-convulsants) and non-pharmacological treatments can address opioid-resistant pain syndromes or situations in which opioid sparing is necessary.

Among the non-pain symptoms reported in the ICU setting, dyspnoea and delirium are probably the most feared and demoralizing.²⁴ Dyspnoea has been documented in over half of dying ICU patients in one study²⁵ and up to 64% of terminally ill patients,²⁶ while up to 90% of patients with terminal cancer experience delirium in the hours or days up to death²⁷ in addition to the multiple etiologies of delirium related to critical illness (organ failure, sensory deprivation, drug toxicity, sepsis, etc.). Opioids are the agents of choice for the relief of dyspnoea because of their safety and effectiveness in suppressing respiratory awareness. Several studies have shown that the use of opioids for the relief of dyspnoea following extubation from ventilatory support of terminally ill patients does not hasten their demise.²⁸⁻³⁰ Similarly for the use of sedation at end of life, increased doses for the relief of symptoms was not shown to shorten survival.³¹ Management approaches for delirium include environmental manipulations (frequent rounds, noise and light reduction, reduced staff turnover) and psychotropic medications such as haloperidol.³²

Bereavement support

Bereavement support is a process that begins with the establishment of trusting relationships between patients, families, and caregivers long before anticipated losses occur. For surgeons, bereavement support is analogous to postoperative care—its success is closely linked to the quality of preoperative and intraoperative preparation.

Bereavement can be influenced by the circumstances of the loss (sudden *vs.* expected, single *vs.* multiple or serial, etc.) as well as predisposing personality and social circumstances. The way bad news is delivered can have lasting consequences on survivors' grief and bereavement.³³ Hospital support services dedicated to bereavement support can mitigate the adverse impact of devastating loss as well as secondary bereavement problems stemming from inadequate attention to families' suffering. This benefit can extend to the long term psychosocial function of survivors and even increase the likelihood of organ donation.³⁴

Putting palliative care into practice in the ICU

Introducing the four essential domains of palliative care into the surgical ICU requires integration of many members

of the interdisciplinary team into the critical care process. Elements of communication, pain and symptom management and family support apply to all critically ill patients. This application should begin at admission to the ICU. If appropriate communication and support are in place early in the illness, later discussions around end of life issues are easier. One such model proposes a series of simple processes of care that integrate palliative care into the ICU setting. This begins with a palliative care assessment at admission: (1) pain and symptom assessment of the patient; (2) evaluation of any advance directive or patient preferences regarding therapy and life support; (3) cultural and spiritual assessment; (4) determination of likely outcomes from the ICU stay; and (5) family assessment. Each member of the team must contribute to this assessment based on their expertise. For example, the physician must assess pain and symptoms and provide prognosis and outcome projection based on medical condition and diagnosis. Family support caregivers (counsellors, social workers, pastoral care) must assess the family, advance directives, patient preferences etc. Communication between the members of the team is critical for continuity of care. All caregivers must know the results of the assessments to make decisions about care.

Once the assessment is completed, a family conference with physician and other team members should be completed within 72 hours of admission. During this meeting, further information about response to current therapy, outcomes and patient's preferences should be discussed and goals of care reviewed. Palliative care plans can be updated and revised as the clinical picture changes. The use of time-limited trials of therapy and discussion about withholding and withdrawing life support may be appropriate at this time. Evidence suggests that attention to these steps can improve the quality of end of life care as well as outcomes for survivors of ICU stay.³⁵

Conclusion

A substantial portion of the four components of palliative care in the surgical ICU is already available and in some regards has been with surgeons since the beginnings of surgical critical care. From the original account of the management of burn victims of the Coconut Grove Fire in 1942, one of the most important single events in the history of critical care and modern surgery, we can receive this wisdom: "Only by well-integrated teamwork among

all the professional personnel charged with the responsibility for service to patients could the total situation of each patient become comprehensible and be dealt with. This teamwork at the time of the disaster can be sustained and function only on a foundation of previous teamwork experience and mutual confidence."³⁶

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