

Palliative Sedation in Nursing Anesthesia

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Palliative sedation is a technique of providing a sedative for end-of-life care to patients with intractable pain. The literature discusses the techniques and use of palliative sedation. Numerous articles have been written regarding the issues surrounding its use, but no literature has discussed the prescription or administration of palliative sedation by a nurse anesthetist. By understanding the concept and ethics involved in its use and providing nursing care that is theory based, the author argues that the involvement of nursing anesthesia is appropriate and within the scope of practice. Few other

healthcare disciplines can provide the patient care and empirical knowledge that is imperative in the care of the dying patient. This article discusses the concept and ethics of palliative sedation and presents a case of providing palliative sedation to a terminally ill patient by an experienced nurse anesthetist. Palliative sedation should be understood, embraced, and utilized as an area of expertise suited for nursing anesthesia.

Keywords: End-of-life care, palliative sedation in nursing anesthesia, sedation in nursing anesthesia.

The literature regarding end-of-life sedation, typically referred to as palliative sedation, is plentiful, yet there appears to be no literature regarding the actual administration of sedation in end-of-life care by an anesthesia provider, specifically by a nurse anesthetist. While understanding the necessity and application of palliative sedation coupled with concurrent review of Certified Registered Nurse Anesthetists (CRNA) scope of practice,¹ the author concludes that involvement of the CRNA in palliative sedation is appropriate and justified. There appears to be little opportunity for student registered nurse anesthetists and practicing CRNAs to be involved in palliative care.

The objective of this article is to explore the ideas and potential involvement of the CRNA in palliative sedation by reviewing the historical background, providing an ethical overview, and presenting a case report of providing palliative sedation.

Historical Background

Discussions regarding end-of-life care have been occurring for decades and possibly centuries, but only over the past 2 decades has there been a more clearly defined plan for end-of-life care. In 1991 Latimer² described aspects of care associated with the end of life. She developed an algorithm to provide healthcare providers the basis for better understanding of the fundamental principles of ethical thought regarding end-of-life care, including euthanasia.² Latimer's algorithm did not discuss the option of palliative sedation but implied the need for evaluating and responding to the patient's experience related to his or her symptoms and suffering as well as involving the patient in decision making in end-of-life care.

Palliative care for patients with advanced cancer had been studied through the early 1990s, resulting in a more specific algorithm offered by Cherny and Portenoy,³ including indications for palliative sedation. They de-

scribe the provision of adequate relief of symptoms as an overriding goal, which should be pursued even in the setting of a narrow therapeutic index. Cherny and Portenoy explain how patient symptoms may be termed "refractory," which could be applied to symptoms that cannot be adequately controlled despite aggressive efforts and continued consciousness. Refractory symptoms are further explained as a precedent to providing palliative sedation. Although the term *palliative sedation* is not used in Cherny and Portenoy's article, they provide a detailed explanation of refractory symptoms as the basis for providing patients sedation to the point of unconsciousness. Later articles reference Cherny and Portenoy's algorithm as the first for determining the appropriate use of sedation for patients with refractory symptoms, and as this was in the context of palliative care, this level of sedation would later be referred to as "palliative sedation".³⁻⁵

During the late 1990s, discussion of palliative sedation and subsequent descriptions of its use have helped clarify the legality of its use in end-of-life situations. A comprehensive review of the research literature presented by Claessens et al⁵ demonstrated palliative sedation being an effective form of treatment, with efficacy rates ranging from 71% to 92%. Early discussion of palliative sedation classified the level of sedation as profound (to unconsciousness), whereas current discussions identify 3 levels of sedation: ordinary, proportionate, and sedation to unconsciousness.⁶ Identification of levels of palliative sedation is not unlike procedural sedation provided by anesthesia providers. Ordinary sedation may be provided for anxiety and mild discomfort; proportionate, for those needing increased amounts to achieve needed comfort; and sedation to unconsciousness, for those with intractable symptoms. The definitions of palliative sedation levels clearly describe titration of drug to desired effect or "proportionality," a mainstay in anesthesia practice that will later be discussed as a

rationale for the use of the CRNA in providing this care.

In response to the thought of classifying levels of palliative sedation Cellarius and Henry⁷ emphasize the importance of administering medication only to the extent demanded by symptoms. Although palliative sedation has been much debated over the past years, its use appears to be a more accepted option for treatment, possibly due to a changing perspective of proportionality. This approach to palliative sedation should comfort those involved in its use, the patients and their families, providers, and prescribers, with the knowledge that meaningful contact with the patient can be maintained until symptoms are intractable.

Ethical Overview

The ethics related to the use and administration of palliative sedation are noted here and should be fully understood. Palliative sedation is legally sound, as evidenced by the US Supreme Court supporting the right of informed patients to pursue relief of suffering even if treatment may unintentionally shorten life.⁸ Although the administration of palliative sedation may be legally allowable, the debate in using palliative sedation appears to occur because of ethical concerns. The following issues appear to be the controversial ethical topics regarding palliative sedation: patient autonomy, distinction of palliative sedation from assisted suicide and euthanasia, issues regarding artificial nutrition and hydration, and conflicting definitions of pain.

Patient autonomy addresses one of the cardinal principles for ethical consideration of treatment. Respect for autonomy recognizes an individual's right or ability to decide on issues according to his or her own beliefs, values, and life plan. Autonomy should be central to the care of dying patients, as it is based on moral thought, cultural practice, and legal precedent.^{2,6} The ethical issue regarding patient autonomy is that palliative sedation may remove the patient's ability to change his or her decision once treatment begins. The dilemma that arises is that patients cannot make such decisions regarding end-of-life care unless fully able to understand the possible consequences. The issue regarding patient autonomy can be addressed by establishing or using already devised palliative sedation protocol, which includes an informed consent.⁹ By using an ethically established protocol that guides palliative sedation in response to patient symptoms, the provider can promote autonomy as well as patient comfort.

The potential of palliative sedation being administered for assisted suicide or euthanasia appears to stir emotion and creates moral and ethical debate. An argument exists against palliative sedation because of potential unintended results, increased morbidity, or death. Quill and colleagues¹⁰ discuss the "doctrine of double effect" as a means to ethically accept treatment of patients with end-of-life pain and suffering. The principle of double effect was developed by Roman Catholic moral

theologians of the Middle Ages, who considered life a divine gift. This principle was applied to situations in which it is impossible for a person to avoid all harmful actions.¹¹ The phrase *lesser of two evils* seem to apply to this concept. Quill et al¹⁰ discuss 4 key conditions that must be met in order for the principle of double effect to be acceptable. The first concerns the nature of the act, in this case pain control, which must be seen as good. The second concern is the agent, or provider's intention; the good effect, not the negative is intended. Here the goal is patient comfort, not respiratory depression. The third condition is the distinction between means and effect. The negative consequence, or death, must not be the means to achieve comfort or relief of suffering. The fourth condition is proportionality between the positive and negative effects. This is possibly the most difficult to evaluate, as one must be convinced the positive effect, relief of suffering, must outweigh the negative, or the risk of death.¹⁰ This concept, the doctrine of double effect, appears to be the most difficult for practitioners to evaluate, as the distinction between assisted suicide, euthanasia, and palliative sedation may be unclear. Those providing palliative sedation should be comforted in knowing that after reviewing 134 articles and case reports of palliative sedation, Claessens and colleagues⁵ conclude that palliative sedation did not hasten the death of patients compared with those not receiving treatment.

The other prominent ethical discussion concerning palliative sedation is whether to continue artificial nutrition and hydration. Some ethicists might see the continuation of artificial nutrition and hydration as working against the desire of the patient to have a less prolonged dying process. Practitioners have described how difficult it might be to prescribe palliative sedation knowing that the patient may no longer be provided food and hydration. The right of patients to request withdrawal of life-sustaining treatment has been upheld in US courts and cited in numerous references.^{2,4,10} The review of cases by Claessens et al⁵ demonstrated that patients who underwent palliative sedation with continuation of nutrition and hydration lived no longer than those who had nutrition and hydration withheld. This review coupled with the legal precedent should help guide those prescribing and caring for the terminally ill patient receiving palliative sedation. Families and patients may be comforted by the fact that in some cases mildly sedated patients were able to continue ingesting fluids and nutrition.⁵

Palliative sedation appears to be an efficacious method for relief of refractory physical symptoms, but debate continues regarding psychological or existential suffering and what meets the definition of pain.¹² One certainly cannot deny the physical pain and suffering that coincides with certain disease and cancer states; here palliative sedation would appear to be a necessary treatment. Psychological suffering associated with the physical symptoms of end-stage diseases would seem likely, whereas existential

suffering of its own accord may be difficult to treat with palliative sedation from an ethical perspective.^{13,14} An analysis done in Germany demonstrated that the indications in cases of existential suffering were provided only in patients who were otherwise considered as having terminal illness. The predominant distress noted was anxiety and refractory insomnia. Pain in these patients was well controlled with opioids.¹⁵ Discussion of cases reviewed simply stated that one study reported the sole use of palliative sedation for psychoexistential problems in which patients had described feelings of meaninglessness, being a burden on others, death anxiety, a wish to control death, isolation, and being an economic burden. It should be noted that participants in this study also had terminal forms of cancer but had no complaints of physical pain due to the end-stage cancer.¹⁵

It appears the fears of using palliative sedation in patients not requiring it are unfounded. Although the morality and ethical concerns regarding the use of palliative sedation in terminally ill patients cannot be discarded, the concerns can be addressed in such a manner that would allow its use with negating moral or ethical consequence. Understanding the concerns of palliative sedation while attempting to maintain patient autonomy allows for titratable palliative sedation as a form of therapy that can be ethically and professionally accepted as standard practice for the terminally ill patient.

Case Summary

Palliative sedation is not a typical function of CRNA practice. In fact, palliative care is not a routine education offering; nor is it in the basic curriculum for nurse anesthesia programs. This case report occurred because prior surgical and anesthetic intervention created a situation in which the patient's and families' needs were discussed through time and progression of the patient disease process. The process of developing a plan and addressing the patient's desires for end-of-life care became logical and well suited for a CRNA. The following case report describes the course of care and rationale for involvement of the CRNA in providing palliative sedation.

The patient, "Jay", was a 33-year-old who received a diagnosis of a rare form of colon cancer 9 months earlier. He had presented originally with bloody stool and abdominal pain. The author originally had cared for Jay while providing sedation for a colonoscopy, then again by providing a general anesthetic with thoracic epidural for a colon resection for removal of a cancerous tumor. The patient was discharged to start chemotherapy 9 months ago.

Jay now presented to the hospital after exhibiting symptoms of bowel obstruction. An exploratory laparotomy was performed with the patient under general anesthesia and with a thoracic epidural anesthetic placed for postoperative pain control. Epidural pain management is a technique used for its analgesic benefits with the use of local anesthetic that typically has little

effect on consciousness. Unfortunately, the surgery was quickly aborted because of advanced metastatic disease. The author again became involved with Jay and his family on postoperative day 1. The intention for postoperative course was pain control and supportive measures knowing that his bowel obstruction would continue and symptoms might worsen. Pain control at this time was well managed with thoracic epidural anesthesia.

Over the course of the next few days of providing care, developing a relationship with the patient and family was inevitable by virtue of monitoring pain control and evaluating the continued use of the thoracic epidural block. Discussion regarding the patient's specific desires for care, including pain control techniques available, occurred with the nursing staff, surgeon, family practice physician, and the author. Developing a relationship with the patient also allowed for meeting family members; his wife, 2 children, parents, and 2 sisters. The time and effort spent on establishing a relationship provided opportunity to listen and address concerns regarding pain and end-of-life issues. Because the author has an understanding of palliative care and knowledge of the death and dying process, it became more apparent that this role could be well suited for the CRNA.

Previous experiences regarding dying patients were never quite like this case for this practitioner. Although having cared for terminally ill patients, this CRNA had never taken on the responsibility for providing and prescribing the medications for the terminally ill patient. Palliative sedation was now being provided by a CRNA. Jay had been getting care by various members of the healthcare team, the surgeons, his family physician, a nurse practitioner, and the nursing staff at this rural hospital. Jay and his family quickly became the family of the staff and members of the healthcare team, yet no single provider felt comfortable with providing the patient-desired palliative sedation. The personal knowledge acquired over the years made the transition from nurse anesthetist in the operating room to nurse anesthetist in palliative care feel natural.

Jay's course at the hospital was difficult. He had days when death seemed near and days when he had humor and energy consistent with life. Jay and his family demonstrated an emotional bond that was strong based on love and spiritual strength. After 2 weeks of inpatient care, Jay asked for care at home. The local hospice care agency took Jay home, with the recommendations for pain control techniques that the author was able to offer. Because of policy issues with the hospice agency, Jay could not go home with the epidural block in place. Therefore, he was converted to a regimen of intravenous hydromorphone with supplemental oral lorazepam when needed. Through continued interaction with the nursing staff, the collaborative team was informed that Jay was doing well at home and continued to maintain autonomy.

Six weeks later a call was received from the emergency

room reporting that Jay had requested to return to the hospital because of intractable symptoms of nausea and vomiting. Recommendation was made that he be admitted with continuation of hydromorphone infusion with intermittent, increasing doses of intravenous lorazepam. A request was also made to change oral routes of administration to intravenous because of concern regarding inability to properly ingest and absorb oral medication. It was also recommended that the patient not be monitored with routine technology and that blood not be drawn for laboratory analysis because of his terminal state. While visiting him the next morning, the author noted that his symptoms were again controlled. Unfortunately, the hospice agency had difficulty providing for all of Jay's symptoms. The hospice agency recognized that Jay would receive care at our facility that they were not capable of providing him at home.

The patient's readmission again allowed for discussion and confirmation of his desire for control of symptoms. Knowing this family allowed for a comfort level to ask questions specific to end-of-life choices, including continuation of do not resuscitate orders. Jay announced that he came to our facility to die. The patient stated how he had been promised that he could die comfortably. Jay stated that he wanted to be surrounded by providers whom he knew respected his wishes and cared for him and his family.

Jay had become terminally ill, weighing little more than 45 kg (100 lb), with little desire for hydration or nutrition, yet he maintained a sense of humor and appropriateness until the end. A collaborative meeting with nursing staff, social services, primary care physician, and this author was provided with the patient and family present. This meeting allowed Jay and his family, as well as the hospital staff, to know what care could be willingly and capably provided. Jay's primary care physician was thankful for the willingness and ability of the CRNA author to prescribe and assess delivery of palliative medications.

In hindsight, insisting on establishing an ethics committee may have been helpful for all involved, including not only the patient and family but also staff. There was no formal ethics committee at that time, but subsequently the facility has created an ethics team with individuals and professionals throughout the facility, including the author.

Within days Jay's doses of medication were increased to hydromorphone, 4 mg/h, and lorazepam was converted to an intravenous infusion of midazolam (15 mg/h) for ease of titration. Jay's symptoms were well managed with continuous infusion and bolus options available. Jay continued to have long periods of consciousness and appeared to rest comfortably when needed. Two days before dying Jay again had intractable symptoms of pain involving what appeared to be bladder spasms and bloody urine. After attempting to take frequent bolus doses to control his symptoms, Jay stated, "I'm ready,"

signaling his readiness for death. The patient was informed of medications that could create unconsciousness but would remove him from being able to interact with family or make any further autonomous decisions. Jay again stated, "I'm ready."

A case report from Europe using propofol for palliative sedation, much like this case, in which a high-dose opioid and benzodiazepine were not achieving the goal of comfort seemed to warrant consideration here.¹⁶ A propofol infusion was started for Jay. Propofol is an intravenously administered hypnotic typically used for induction of general anesthesia and procedural sedation. A propofol protocol already established at our facility for intensive care patients but without the need for monitoring was utilized. Education on the use of propofol was provided to the nursing staff. Many of the nursing staff members were already familiar with the use of propofol from exposure to its use in the intensive care unit. Within minutes Jay's symptoms were again well controlled. He appeared to be resting comfortably with the multiple infusions now in place.

The medications continued for another 36 hours, with the propofol infusion needing adjustment only 3 times. Although blood pressure and oxygen saturation measurements were not routinely obtained, the nursing staff was vigilant in monitoring respirations and comfort level. Jay died peacefully with his wife and parents at his side. As the prescriber, the author met and evaluated the patient and family regularly and evaluated him only an hour before his death. The author left the patient and family on this occasion knowing his wishes for pain control via palliative sedation were being met.

Discussion

Barbara A. Carper had discussed patterns of knowing in nursing as a tool to generating clearer and more complete thinking and learning about experiences, which seemed to apply to this patient and situation. Carper¹⁷ described 4 ways of knowing—empirical, personal, ethical, and aesthetic—through which a nurse may fundamentally know a patient. Discussions involving medication and goals of pain control were consistent with empirical knowledge necessary to prescribe and administer needed medications. The empirical knowledge of pharmacology coupled with the aesthetic knowing and personal knowledge of end-of-life situations was necessary to educate the patient and family about the goals of treatment. Development of a relationship with the patient and family allowed discussion regarding the ethics of knowing. It was clear that Jay wished to maintain as much autonomy as possible but understood that his family might be required to be involved in decision making regarding his desires when he might no longer be capable.

The opportunity to be involved with this clinical experience created a change in perspective on patient care. It

became apparent there could be far more to offer patients and other healthcare professionals than limiting CRNA practice to the operating room. Understanding the concepts reviewed earlier can allow CRNAs to be intimately involved in the care of patients requiring end-of-life treatment. Although, to the author's knowledge, there were no references in the literature specifically describing CRNAs prescribing and initiating palliative sedation, it would seem logical to consider CRNAs as appropriate healthcare providers for assessing, diagnosing, planning, implementing, and evaluating this care. The concept of utilizing specialists, such as anesthesia care providers, who have the knowledge base to intervene, would seem valid. The specialty of nursing anesthesia would appear to be well suited for involvement in palliative sedation. An article discussing how anesthesiologists are, at least on occasion, consulted regarding the care requirements for palliative sedation seemed logical.¹⁸ This author, however, would suggest that CRNAs are better suited because of our ability to provide theory-based nursing care as well as an anesthesia knowledge base. The knowledge base and skill set of the CRNA may be even more applicable to palliative sedation in the rural setting, where specialty care providers are not as available.

Both the American Medical Association¹⁹ and the American Nurses Association²⁰ have published position statements regarding patient care and pain control at end of life. The scope of practice for the nurse anesthetist does not specifically address palliative sedation but addresses anesthesia care specific to patients and conditions. A statement specific to palliative sedation might allow CRNAs to be more willing to engage in this process. It seems logical that CRNA involvement with situations like the one described should not be unique. Although there is documented research suggestive of moral distress in nursing anesthesia,²¹ this case study should be a celebration of what we are capable of providing our patients rather than potential increased moral stress. By understanding the history and ethical issues involved in palliative sedation and implementing care based on the nursing process, the CRNA can proceed with the knowledge and practice foundations that few others can provide.

Nursing anesthesia professionals have knowledge based in theory coupled with specialty education and experience and training in pharmacology and physiology that give us a unique ability to provide care for the patient requiring palliative sedation. It is recognized that there are potential limitations in practice based on state law and local facility credentialing, which may limit the ability to prescribe, deliver, and evaluate ongoing care. Whether the prescribing and administration of medication is done by the nurse anesthetist or collaboratively with other members of the healthcare team, our involvement in palliative sedation will be an example of our ability to provide high-quality nursing and anesthesia care.

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