

Vermont Board of Nursing
Position Statement

REGISTERED NURSES' ROLE IN THE ADMINISTRATION OF PROPOFOL (DIPRIVAN)

Question: Is the administration of Propofol within the scope of practice of the Registered Nurse?

Definitions:

Sedation and analgesia: a medically controlled state of depressed consciousness that allows protective reflexes to be maintained. The patient retains the ability to independently maintain his or her airway and to respond purposefully to verbal commands and/or tactile stimulation. The American Society of Anesthesiologists (ASA) Task Force on Sedation and Analgesia has developed Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists which states "sedation and analgesia describes a state that allows patients to tolerate unpleasant procedures while maintaining adequate cardio-respiratory function and the ability to respond purposefully to verbal command and tactile stimulation."

The Task Force concluded that the term sedation and analgesia more accurately defines this therapeutic goal than does the more commonly used but imprecise term of 'conscious sedation.' Those patients whose only response is reflex withdrawal from a painful stimulus are sedated to a greater degree than encompassed by sedation/analgesia. This level of sedation is more accurately described as deep sedation which is not within the scope of practice of the Registered Nurse.

Propofol: an intravenous preparation, classified as a sedative/hypnotic according to the manufacturer's product information. It is intended for use as an anesthetic agent or for the purpose of maintaining sedation of an intubated, mechanically ventilated patient.

Critical Care setting: an intensive care unit, emergency department or other specialized care area in which a credentialed provider in airway management is immediately available.

Background:

According to The American Society of Anesthesiologists (ASA), the standard definition for the four levels of sedation and anesthesia are:

Minimal sedation: Also known as anxiolysis. A drug-induced state during which the patient responds normally to verbal commands. Cognitive function and coordination may be impaired. Ventilatory and cardiovascular functions are unaffected.

Moderate sedation/analgesia (conscious sedation): A drug-induced depression of consciousness during which the patient responds purposefully to verbal command, either alone or accompanied by light tactile stimulation. No interventions are necessary to maintain a patent airway. Spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

Deep sedation/analgesia: A drug-induced depression of consciousness during which the patient cannot be easily aroused, but responds purposefully* following repeated or painful stimulation. Independent ventilatory function may be impaired. The patient may require assistance to maintain a patent airway. Spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

General anesthesia: A drug-induced loss of consciousness during which the patient is not arousable, even to painful stimuli. The ability to maintain independent ventilatory function is often impaired. Assistance is often required in maintaining a patent airway. Positive pressure ventilation may be required due to depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

* *Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.*

1. Sedation and analgesia may easily be converted to deep sedation and the loss of consciousness because of the agents used and the physical status and drug sensitivities of the individual patient. The administration of sedation and analgesia requires constant monitoring of the patient and ability of the administrator to respond immediately to any adverse reaction or complication. Vigilance and the ability to recognize and intervene if complications or undesired outcomes arise are essential requirements for administrators of sedation and analgesia.
2. In a state of deep sedation, the patient's level of consciousness is depressed, and the patient is likely to require assistance to maintain a patent airway. Deep sedation occurring in a patient who is not appropriately monitored and/or who does not have appropriate airway support may result in a life-threatening emergency for the patient. This is not consistent with the concept of moderate sedation as defined in this position statement or the professional literature and is considered to be beyond the scope of practice of the RN.
3. Although Propofol is classified as a sedative/hypnotic, according to the manufacturer's product information, it is intended for use as an anesthetic agent or for the purpose of maintaining sedation of an intubated, mechanically ventilated patient. The product information brochure for Propofol further includes a warning that "only persons trained to administer general anesthesia should administer Propofol for purposes of general anesthesia or for monitored anesthesia care/sedation." The clinical effects for patients receiving anesthetic agents such as Propofol may vary widely within a negligible dose range. Though reportedly "short-acting," it is noteworthy that there are **no** reversal agents for Propofol.
4. Although the physician or other health care provider performing the procedure may possess the necessary knowledge, skills, and abilities to rescue a patient from deep sedation and general anesthesia, it is not prudent to presume this physician will be able to leave the surgical site or abandon the procedure to assist in rescuing the patient.
5. It should be stressed that the registered nurse's duty to assure patient safety is an independent obligation under his/her professional licensure that supersedes any physician order or facility policy. It is important to note that the nurse's duty to the patient obligates him/her to decline orders for medications or doses of medications that have the potential to cause the patient to reach a deeper level of sedation or anesthesia.
6. The patient receiving anesthetic agents, such as Propofol, is at increased risk for loss of consciousness and/or abnormal protective airway reflexes, regardless of who is administering this medication. The provider of this agent, in the non-intubated procedure setting, should retain extensive training in the administration of anesthetic agents and advanced airway management. Again, this is **not** consistent with the concept of moderate sedation outlined in the professional literature.

Position Statement which Reflects Nurse's Roles and Responsibilities in the Administration of intravenous Propofol for Critical Care Sedation, on Patients that Require Intubation and Mechanical Ventilation:

Nurse's Responsibilities and Requirements Relating to the Intubated/Mechanically Ventilated Patient

Given that the following criteria are met, **it is within** the scope of practice for the RN to administer intravenous Propofol to the intubated, mechanically ventilated patient in continuous and bolus dosing, for ongoing sedation/analgesia within the Critical Care setting.

Exception: The Registered Nurse may administer Propofol to the non-intubated patient for the purpose of rapid sequence intubation when the clinical presentation of impending respiratory failure is imminent. This will be done in the presence of, and under the direction of, a provider credentialed to manage a patient in this level of critical physical acuity.

Knowledge and Skills

It is the expectation that the following knowledge and skills are gained and demonstrated prior to administration of intravenous Propofol. Evidence of education, training, experience, and ongoing competency appropriate to the responsibilities, treatment provided, and the patient/population served should be maintained in personnel files and/or individual portfolios. The Registered Nurse must possess knowledge and the ability to apply it during the administration of intravenous Propofol for critical care sedation, on patients that require intubation, and mechanical ventilation.

Qualifications

1. The Registered Nurse is allowed by state law and institutional policy to administer sedation.
2. The health care facility shall have in place an educational/credentialing mechanism which includes a process for evaluating and documenting the individual's competency relating to the management of patients receiving intravenous Propofol sedation. Evaluation and documentation should occur on a periodic basis.

A. Management & Monitoring

The Registered Nurse managing and monitoring the care of patients receiving intravenous Propofol sedation is able to:

- a. Demonstrate the acquired knowledge of anatomy, physiology, pharmacology, cardiac arrhythmia recognition, and complications related to intravenous Propofol sedation.
- b. Assess the total patient care requirements before and during the administration of intravenous Propofol sedation, including the recovery phase.
- c. Understand the principles of oxygen delivery, transport and uptake, respiratory physiology, as well as understand and use oxygen delivery devices, including mechanical ventilation.
- d. Recognize potential complications of sedation with intravenous Propofol administration.
- e. Posses the competency to assess, diagnose, and if complications occur, and institute appropriate interventions in compliance with orders or institutional protocols.
- f. Demonstrate competency, through Advanced Cardiopulmonary Life Support (ACLS) and/or Pediatric Advanced Life Support (PALS), in airway management and resuscitation appropriate to the age of the patient.
- g. Understand the legal ramifications of providing this care.

B. Practice Setting

It is not the Board's role to develop policy for the individual practice settings. However, any nurse who is going to administer sedating or anesthetic agents for the purposes expressed in this position statement has the responsibility to ensure that the following criteria are met prior to participating in sedation for the intubated, mechanically ventilated patient.

1. Written administrative policies and protocols are readily available and medically approved. These policies and protocols should be consistent with currently accepted practice, and include (but not be limited to) information on patient selection criteria, patient monitoring, definitions of levels of sedation, drug administration, and directions for dealing with potential complications or emergency situations; and
2. Written risk management and quality improvement plan in place and reviewed on a periodic basis.
3. An emergency cart must be immediately accessible to every location where sedation is administered. This cart must include emergency resuscitative drugs, airway and ventilatory adjunct equipment, defibrillator, and a source for administration of 100% oxygen. A positive pressure breathing device, oxygen, suction, and appropriate airways must be placed in each room where sedation is administered.
4. Back-up personnel who are experts in airway management, emergency intubations, and advanced cardiopulmonary resuscitation must be immediately available on site.

5. A qualified professional capable of managing complications must be present in the facility.

Position Statement which reflects Nurses' Roles and Responsibilities in the Administration of Propofol for Moderate Sedation/Analgesia in Non-intubated Patients:

It is not within the scope of practice of the registered nurse (RN) who is not a Certified Registered Nurse Anesthetist (CRNA) to administer agents used primarily as anesthetics for moderate and deep sedation, including Propofol, in accordance with the American Association of Nurse Anesthetists - American Society of Anesthesiologists Joint Statement Regarding Propofol Administration (2004). This would include the non-intubated patient undergoing procedures, including but not limited to, invasive cardiology, invasive radiology, endoscopic gastro-intestinal procedures, Invasive bronchoscope and emergent procedures.

It is not within the scope of practice of the RN who is not a Certified Registered Nurse Anesthetist (CRNA) to manage deep sedation or general anesthesia.

References/Citations:

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2. American Association of Nurse Anesthetists (AANA). (2003). **Considerations for policy guidelines for registered nurses engaged in the administration of sedation and analgesia.** Retrieved 8/11/05, from <http://www.aana.com>
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6. Institute for Safe Medication Practices. ISMP medication Safety Alert. Propofol sedation who should administer? Nov.3rd 2005. website <http://www.ismp.org>
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This opinion is subject to change as changes in nursing practice occur.