

Alaska Board of Nursing  
Advisory Opinion  
Nurse Administration of Sedating and Anesthetic Agents

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The Alaska Board of Nursing publishes Advisory Opinions regarding safe nursing practice, in accordance with AS 08.68.100(a)(9).

**Statement of Purpose**

The purpose of this policy is to provide scope of practice clarification for nurses who may be asked to administer sedating and anesthetic pharmacology agents in order to achieve moderate and deep procedural sedation in non-intubated patients, and moderate and deep sedation in intubated/ventilated patients. This policy statement will specify the practice setting as well as administration of sedating and anesthetic agents for other purposes.

**Background Information**

Nurses are increasingly involved in a variety of patient care settings where they receive orders to administer pharmacologic agents to sedate their patients. In 2002, the Alaska Board of Nursing issued a position statement that prohibited the administration of Ketamine by nurses.

Given the dynamic nature of nursing practice, more requirements have been placed on nurses to administer agents, particularly anesthetic agents, in a variety of practice situations. In addition, some facilities have begun to support the use and administration of anesthetic agents by nurses and by appropriately credentialed Licensed Independent Practitioners (LIP) for the purpose of moderate or procedural (formerly referred to as conscious) and deep sedation. Given the changing nature of these nursing practices, nurses need guidance in order to determine how they can safely practice within their scope.

**Scope Statement**

The administration of pharmacologic agents for sedation by a specifically trained nurse, other than a Certified Registered Nurse Anesthetist (CRNA) or appropriately credentialed Advanced Nurse Practitioner, requires additional education and specific competency on the part of the nurse. One level of sedation can quickly change to a deeper level of sedation due to the unique characteristics of the drugs used, as well as the physical status and drug sensitivities of the individual patient. The administration of sedating agents requires ongoing assessment and monitoring of the patient and the ability to respond immediately to deviations from the norm. Sedation should only be provided by a nurse who is competent in comprehensive patient assessment, is able to administer drugs through a variety of routes, is able to identify responses that are a deviation from the

norm, is able to intervene as necessary and whose duties are solely the monitoring of that patient.

The Alaska Board of Nursing finds that it is within scope of practice for nurses to administer sedating agents in the acute care setting for minimal sedation (anxiolysis) and moderate (procedural) sedation. [In addition,] It is not within the scope of practice of the nurse to administer anesthetic agents (such as propofol, etomidate, etc.) for the purpose of anxiolysis; benzodiazepines and opioids are approved for anxiolysis. If the patient receiving sedating/anesthetic agents progresses to a deeper level of sedation, the nurse's responsibility and requirements outlined in this policy guideline for moderate procedural sedation must be followed.

Furthermore, the Alaska Board of Nursing finds that it is within the role and scope of practice for the nurse to administer sedating and anesthetic agents to produce moderate procedural sedation, moderate procedural sedation for the non-intubated or intubated/ventilated patient, under the direction of a LIP, in the acute care setting, in accordance with the guidelines listed below. The nurse may also manage patients who are recovering from sedation. In addition, there are other special circumstances under which administration of anesthetic or sedating agents are within the scope of practice of the nurse in the acute care setting. These circumstances are explained later within this policy guideline. Additionally, the Board believes that the administration of sedating and anesthetic agents for the purposes of moderate procedural sedation expressed by this policy exceeds the scope of practice for the Licensed Practical Nurse (LPN) or unlicensed assistive personnel (UAP). These guidelines do not apply to Certified Registered Nurse Anesthetist (CRNA) or appropriately credentialed Advanced Nurse Practitioner.

Nursing scope of practice relating to use of American Society of Anesthesiologists (ASA)  
Physical Classification:

*Adult Patients*

The nurse may administer moderate procedural sedation to an adult patient with an ASA score of I or II, if all the criteria detailed in this policy guidelines are met. The nurse may NOT administer to adult patients with an ASA score of III or IV unless a CRNA, appropriately credentialed Advanced Nurse Practitioner or LIP credentialed by the facility in moderate procedural sedation, and competent in intubation and airway management is immediately available.

*Pediatric Patients*

The nurse may administer moderate procedural sedation to pediatric patients (defined as an individual less than 18 years of age) in an acute care setting with an ASA score of I or II if all the criteria detailed in this policy guideline are met. The nurse may NOT administer to pediatric patients with an ASA score of III or IV unless a CRNA, appropriately credentialed Advanced Nurse Practitioner or LIP credentialed by the facility in moderate procedural sedation, and competent in intubation and airway management is immediately available.

I. Nurse Responsibility and Requirements Relating to Moderate procedural sedation:

It is within the scope of practice for the nurse to administer sedation, including the administration of anesthetic agents for moderate procedural sedation in the acute care setting given that the following requirements are met.

A. Knowledge and Skills:

It is the expectation that the following knowledge and skills are gained prior to administration of sedating and anesthetic agents. Education, training, experience and ongoing competency appropriate to responsibilities, treatment provided and the patient/population served is evidenced in personnel files and/or individual portfolios.

The nurse must possess knowledge of and be able to apply in practice:

1. Anatomy and physiology, including principles of oxygen delivery, transport and uptake;
2. Pharmacology for sedating and anesthetic agent/s, including drug actions, side effects, contraindications, reversal agents and untoward effects;
3. Appropriate physiologic measurements for evaluation or respiratory rate, oxygen saturation, blood pressure, cardiac rate and rhythm and the patient's level of consciousness.
4. Appropriate nursing interventions in the event of complications or untoward outcomes;
5. Airway management, arrhythmia recognition and emergency resuscitation appropriate to the age of the patient through Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS) or equivalent training;
6. Ability to assess the total patient care requirements before and during the administration of sedation and analgesia, including the recovery phase; and
7. ASA Physical Status Classification.

B. Potential Risk Factors

The nurse is expected to consider potential risk factors that may increase the chance of complications associated with moderate procedural sedation/anesthesia. It is also the nurse's responsibility to use that information during additional assessment and care planning and to communicate that information as needed to other

members of the health care team. The physician retains responsibility for pre-procedure assessment of the patient, including ASA score assignment, and obtaining informed consent. Factors that should be considered include, but are not limited to:

1. Clinical status of the patient;
2. ASA score;
3. Extremes of age;
4. Developmental delay;
5. History of sleep apnea;
6. Morbid obesity;
7. History of drug or alcohol abuse or dependence;
8. Smoking history;
9. Pregnancy
10. Airway anomalies;
11. Previous adverse experience with sedation, analgesia or anesthesia;
12. Hypoxia
13. Diseases: cardiovascular, respiratory, central nervous system, renal and endocrine; and
14. Prescribed, over the counter and herbal medications.

C. Practice Setting

It is not the Board's role to develop policy for the acute care practice setting. However, any nurse who is going to administer sedating or anesthetic agents for the purposes expressed in this policy guideline has the responsibility to ensure that the following requirements are met prior to participating in moderate procedural sedation.

1. Written policies and protocols, which are readily available and are medically approved. These policies and protocols should also be consistent with current practice, and include (but are not limited to) information on patient selection criteria, patient monitoring, definitions of levels of sedation, immediate availability and responsibility of physician, appropriately credentialed Advanced Nurse Practitioner and CRNA (if applicable), drug administration and directions for dealing with potential complications or emergency situations; and
2. Written risk management and quality improvement plan in place.

3. The immediate availability of the appropriately credentialed LIP capable of advanced airway maintenance.
4. The LIP managing the procedure is properly credentialed by the facility in the use of the moderate procedural sedation/anesthetic agents.

D. Personnel and Equipment

In order for the nurse to administer sedation/anesthetic agents as described by this policy, the personnel in the practice setting must have the capability to rescue the patient at one level deeper than the planned sedation. The nurse must work under the direction of an appropriate credentialed LIP who is responsible for directing the procedure, prescribing the medications, and is immediately available to respond throughout the course of sedation (initiation through immediate post-procedure recovery as defined by institutional policy).

A plan and mechanism to activate qualified health professionals in the event of an emergency must be in place. Appropriate emergency equipment must be immediately available to the nurse in the procedural area and includes, but is not limited to:

1. Bag mask device and source for 100% oxygen;
2. Suction equipment and machine;
3. Airways (Age and size appropriate) and intubation equipment;
4. Cardiac monitor and defibrillation equipment; and
5. Reversal agents and resuscitation medication.

E. Patient Monitoring

When monitoring the patient, the nurse may not leave the patient unattended or perform other tasks that would compromise patient monitoring, including performance of the procedure itself. In addition, the nurse must ensure:

1. All patients must have patent intravenous access from the time of intravenous medication administration until recovery from sedation.
2. All patients must be continuously monitored by the nurse throughout the procedure and recovery phase. Monitoring must include:
  - a. Airway patency and ventilatory effort;
  - b. Pulse oximetry;
  - c. Intermittent blood pressure, heart rate and respiratory rate;

- d. Cardiac monitoring for deep sedation;
- e. Patient's pain response to medication using an age or population-specific pain scale; and
- f. Level of consciousness or response to stimuli.

## II. Nurse Responsibility and Requirements Relating to the Intubated/Ventilated Patient

Given that the following criteria are met, it is within the scope of practice for the nurse to administer sedation/anesthesia agents in the acute care setting to the intubated/ventilated patient in continuous and bolus dosing, for ongoing sedation.

### A. Knowledge and Skills

It is the expectation that the following knowledge and skills are gained prior to administration of sedation/anesthesia agents. Education, training, experience and ongoing competency appropriate to responsibilities, treatment provided and the patient/population served is evidenced in personnel files and/or individual portfolios.

The nurse must possess knowledge of and be able to apply in practice:

1. Anatomy and physiology, including principles of oxygen delivery, transport and uptake;
2. Pharmacology for sedating/anesthesia agents, including drug actions, side effects, contraindications, reversal agents and untoward effects;
3. Appropriate physiologic measurements for evaluation of respiratory rate, oxygen saturation, blood pressure, cardiac rate and rhythm and the patient's level of consciousness;
4. Appropriate nursing interventions in the event of complication or untoward outcomes;
5. Airway management, arrhythmia recognition and emergency resuscitation appropriate to the age of the patient through Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS) or equivalent training; and
6. Ability to assess the total patient care requirements before and during the administration of sedating/anesthesia agents and analgesia, including the recovery phase.

B. Practice Setting

It is not the Board's role to develop policy for the acute care practice setting. However, any nurse who is going to administer sedating or anesthetic agents for the purposes expressed in this policy guideline has the responsibility to ensure that the following requirements are met prior to participating in moderate procedural sedation.

1. Written policies and protocols, which are readily available and are medically approved. These policies and protocols should also be consistent with current practice, and include (but are not limited to) information on patient selection criteria, patient monitoring, definitions of levels of sedation, immediate availability and responsibility of physician, appropriately credentialed Advanced Nurse Practitioner and CRNA (if applicable), drug administration and directions for dealing with potential complications or emergency situations; and
2. Written risk management and quality improvement plan in place.
3. The immediate availability of the appropriately credentialed LIP capable of advanced airway maintenance.

C. Personnel and Equipment

In order for the nurse to administer sedation as described by this policy guideline, the personnel in the acute care practice setting must have the capability to rescue the patient should the airway or hemodynamic status be compromised. The nurse must work under the direction of an appropriately credentialed LIP who is responsible for prescribing the medications. A plan and mechanism to activate qualified health professionals in the event of an emergency must be in place. Appropriate emergency equipment must be immediately available to the nurse in the procedural area and includes, but is not limited to:

1. Bag mask device and source for 100% oxygen;
2. Suction equipment and machine;
3. Airways (Age and size appropriate) and intubation equipment;
4. Cardiac monitor and defibrillation equipment; and
5. Reversal agents and resuscitation medications.

D. Patient Monitoring

1. Patient monitoring will be established by facility

2. policy and specified by patient need.  
The requirement in II. B. 3. is not required for the stabilized, intubated/ventilated patient.

### III. Emergency Rapid Sequence Intubation

It is within the scope of practice for a nurse to administer sedation, including the administration of anesthetic agents, under the direction of a credentialed LIP for sedation of a patient during an emergency rapid sequence intubation, provided that the criteria (Knowledge and Skills Requirements 1-6, Practice Setting, personnel and Equipment) identified for the intubated/ventilated patient are met. In addition, the following patient monitoring criteria will be followed:

1. The nurse may not leave the patient unattended or perform other tasks that would compromise patient monitoring;
2. Airway patency and ventilatory excursion must be monitored; and
3. Pulse oximetry must be monitored.

### IV. Training Program Approval

The training program must be reviewed prior to Board of Nursing approval. Approval is based on criteria in this policy statement. Facilities doing this training must maintain competency documentation.

### V. Appendix

#### A. Definitions

1. “Anesthetic Agents.” A drug that, when administered, causes partial or complete loss of sensation, with or without loss of consciousness.
2. “ASA Physical Status Classification.”
  - a. Class I. A normally healthy patient
  - b. Class II. A patient with mild systemic disease
  - c. Class III. A patient with severe systemic disease
  - d. Class IV. A patient with severe systemic disease that is a constant threat to life
  - e. Class V. A moribund patient who is not expected to survive 24 hours with or without the procedure.

3. “Credentialed Licensed Independent Practitioner (LIP).” An individual permitted by law and the individual’s employer to independently provide care, treatment and services that are within the individual’s scope of practice and consistent with clinical privileges granted by his/her employer. The Board of Nursing defines this as a Medical Doctor, Doctor of Osteopathy, appropriately credentialed Advanced Nurse Practitioner or Certified Registered Nurse Anesthetist.
4. “Deep Sedation/Analgesia” is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully\* following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained. (American Society of Anesthesiologists [ASA] policy statement on Continuum of Depth of Sedation definition of General Anesthesia and Levels of Sedations/Analgesia, Approved by ASA House of Delegates on October 12, 1999, and amended on October 27, 2004.) The Alaska Board of Nursing does not recognize this level of sedation/anesthesia as within the scope of practice of a nurse other than a CRNA or appropriately credentialed Advanced Nurse Practitioner, except in the circumstance of emergency rapid sequence intubation.
5. “General Anesthesia” is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired. (American Society of Anesthesiologists [ASA] policy statement on Continuum of Depth of Sedation definition of

General Anesthesia and Levels of Sedations/Analgesia, Approved by ASA House of Delegates on October 12, 1999, and amended on October 27, 2004.) The Alaska Board of Nursing does not recognize this level of anesthesia as within the scope of practice of a nurse other than an appropriately credentialed Advanced Nurse Practitioner or Certified Registered Nurse Anesthetist, except in the circumstance of emergency rapid sequence intubation.

6. “Immediately available.” Present on site in the unit of care and not otherwise engaged in any other uninterruptible procedure or task.
7. “Minimal Sedation (Anxiolysis)” is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected. (ASA policy statement on Continuum of Depth of Sedation Definition of General Anesthesia and Levels of Sedation/Analgesia, approved by ASA House of Delegates on October 13, 1999, and amended on October 27, 2004.) Appropriate medications for this purpose are benzodiazepines and opioids, but not anesthesia agents.
8. “Moderate Sedation” (“Conscious or Moderate procedural sedation”) is a drug-induced depression of consciousness during which patients respond purposefully\* to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained. (American Society of Anesthesiologists [ASA] policy statement on Continuum of Depth of Sedation definition of General Anesthesia and Levels of Sedations/Analgesia, Approved by ASA House of Delegates on October 12, 1999, and amended on October 27, 2004.)
9. “Rescuing.” Possessing the competency to manage a compromised airway, provide adequate

oxygenation and ventilation, and administer emergency medications and/or reversal agents.

10. “Procedural Sedation” is the technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardiorespiratory function. (American College of Emergency Physicians [ACEP], Clinical Policy for Procedural Sedation and Analgesia in the Emergency Department, Annals of Emergency Medicine, 2005.)
11. “Sedating Agent.” A drug that, when administered, causes calmness, relaxation, reduced anxiety and sleepiness.
12. “Acute Care Setting.” An emergency department, intensive care unit, or other specialized care area in which Licensed Independent Practitioners are immediately available.
13. “Nurse” is defined as a Licensed Registered Nurse.
14. “Rapid-sequence intubation” (RSI) is an important technique for airway management of patients in the emergency department and is in the domain of emergency medicine practice. RSI is defined as a technique where a potent sedative or induction agent is administered virtually simultaneously with a paralyzing dose of a neuromuscular blocking agent to facilitate rapid tracheal intubation. The technique includes specific protection against aspiration of gastric contents, provides excellent access to the airway for intubation, and permits pharmacologic control of adverse responses to illness, injury, and the intubation itself. (American College of Emergency Physicians [ACEP], Rapid Sequence Intubation policy statement, October 2006.)

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

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