

Department of Commerce, Community, and Economic Development

BOARD OF NURSING

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An advisory opinion adopted by the Alaska Board of Nursing is an interpretation of what the law requires. While an advisory opinion is not law, it is more than a recommendation. In other words, an advisory opinion is an official opinion the Alaska Board of Nursing regarding the practice of nursing as it relates to the health and safety of the Alaska healthcare consumer. Facility policies may restrict practice further in their setting and/or require additional expectations related to competency, validation, training, and supervision to assure safety of their patient population and/or decrease risk. The Alaska Board of Nursing publishes Advisory Opinions regarding safe nursing practice, in accordance with AS 08.68.100(a)(9).

OPINION: Registered Nurse Administration of Sedating and Anesthetic Agents APPROVED DATE: June 2006, August 2023 REVIEWED DATE: December 2006, March 2007, September 2007, October 2009 REVISED DATE: 10 May 2023

Within the Scope of Practice/Role of <u>X</u>APRN X RN <u>LPN</u>CNA

ADVISORY OPINION

- 1. RNs may not perform deep sedation.
- 2. The medication used to accomplish minimal or moderate sedation is left to the clinical judgment of the licensed independent provider.

Statement of Purpose

The purpose of this policy is to provide scope of practice clarification for Registered 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 pharmacological agents to sedate their patients.

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 to determine how they can safely practice within their scope.

Scope Statement

The administration of pharmacological agents for sedation by a specifically trained Registered Nurse, other than a Certified Registered Nurse Anesthetist (CRNA), requires additional education and specific competency on the part of the Registered 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 Registered 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 Registered Nurses to administer sedating agents in the acute care setting for minimal sedation (anxiolysis). 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. Anxiolytic agents include, but are not limited to, benzodiazepines and opioids. Anesthetic agents (such as propofol, etomidate, etc.) would not be appropriate for the purpose of anxiolysis.

The Alaska Board of Nursing finds that it is within the role and scope of practice for Registered Nurses to administer sedating and anesthetic agents to produce 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 in this advisory opinion. In addition, there are other special circumstances under which administration of anesthetic or sedating agents are within the scope of practice of Registered Nurses, exclusively in the acute care setting. These circumstances are explained within this Advisory Opinion.

Additionally, the Board states that the administration of sedating and anesthetic agents for the purposes of moderate procedural sedation expressed by this policy <u>exceeds</u> 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 (ANP).

If the patient receiving sedating/anesthetic agents progresses to the level of deep sedation or general anesthesia, the Registered Nurse's responsibility and requirements outlined in this advisory opinion must be followed.

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

<u>Adult Patients</u>

The Registered 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 Registered Nurse may NOT administer to adult patients with an ASA score of III or IV unless a CRNA, or LIP credentialed by the facility in moderate procedural sedation, and competent in intubation and airway management is immediately available.

Pediatric Patients:

The Registered 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 Registered 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.

Specific conditions that must exist to assure patient safety:

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

It is within the scope of practice for the Registered 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 Registered 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 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 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 Registered 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 Registered 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 Registered 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 not limited to) information on patient selection criteria, patient monitoring, definitions of levels of sedation, immediate availability and responsibility of physician, or 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.
- 5. If LIP is managing the procedure, LIP must be able to interrupt the procedure in order to assist with the management of the patient who experiences over-sedation or other changes in the patient's condition.
- D. Personnel and Equipment

For the Registered 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 Registered 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 Registered 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 Registered 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 Registered 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 Registered 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. Registered 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 Registered 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 Registered 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 Registered 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

For the Registered 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 Registered 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 Registered 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 policy and specified by patient need.
- 2. 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 Registered 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 Registered 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. Management of Patients in Emergency Transportation Scenarios The registered nurse must have the knowledge and skills delineated in I. A., in addition to specialized training in emergency patient transportation. Standing orders from an LIP, which define the appropriate interventions to be employed by the registered nurse, must exist.

V. Training Program

Facilities doing this training must maintain competency documentation.

Appendix

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." (9)

ASA I	A normal healthy patient	Healthy, nonsmoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): Current smoker, social alcohol drinker, pregnancy, obesity (30 < BMI < 40), well- controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; one or more moderate-to-severe diseases. Examples include (but not limited to): Poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA < 60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): Recent (< 3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): Ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes	

Developed By: ASA House of Delegates/Executive Committee

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.

Description	Minimal	Moderate	Deep	General
	Sedation	Sedation/Analgesia	Sedation/Analgesia	Anesthesia
Responsiveness	Normal	Purposeful response	Purposeful response	No response
	response to	to verbal or tactile	following repeated or	even with
	verbal	stimulation	painful stimulation	painful
	stimulation			stimulus
Airway	Unaffected	No intervention	Intervention may be	Intervention
		required	required	often required
Spontaneous	Unaffected	Adequate	Maybe inadequate	Frequently
Ventilation				inadequate
Cardiovascular	Unaffected	Usually maintained	Usually maintained	May be
Function				impaired

4.	ASA	Continuum	of Sedation	(10))
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(*Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

- 5. "Immediately available." Present on site <u>in the unit of care</u> and not otherwise engaged in any other uninterruptible procedure or task.
- 6. "Rescuing." Possessing the competency to manage a compromised airway, provide adequate oxygenation and ventilation, and administer emergency medications and/or reversal agents.
- 7. "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. (4,5).
- 8. "Sedating Agent." A drug that, when administered, causes calmness, relaxation, reduced anxiety and sleepiness.
- 9. "Acute Care Setting." An emergency department, intensive care unit, or other specialized care area in which Licensed Independent Practitioners are immediately available.

- 10. "Nurse" is defined as a Licensed Registered Nurse.
- 11. "Rapid-sequence intubation" (RSI) is an important technique for airway management of patients in the emergency department and Intensive Care Unit. 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 without mask ventilation. The technique affords 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. (6)

References:

- 1. American Association of Nurse Anesthetists (AANA), "Qualified Providers of Sedation and Analgesia", June 2003.
- 2. American Association of Nurse Anesthetists (AANA), Considerations for Policy Guidelines for Registered Nurses Engaged in the Administration of Sedation and Analgesia, adopted by AANA Board of Directors June 1996, revised June 2003.
- American Association of Nurse Anesthesiology (AANA): Non-Anesthesia Provider Procedural Sedation and Analgesia Position Statement and Policy Considerations. AANA Board of Directors, August 2022.
- American College of Emergency Physicians [ACEP], Clinical Policy for Procedural Sedation and Analgesia in the Emergency Department, <u>Annals of Emergency</u> <u>Medicine</u>, 2005.
- 5. American College of Emergency Physicians Clinical Policies: Procedural Sedation and Analgesia. Annals of Emergency Medicine, 2014; 63:247-258.
- 6. American College of Emergency Physicians [ACEP], Rapid Sequence Intubation policy statement, October 2006).
- 7. American Society of Anesthesiologists, "Credentialing Guidelines for Practitioners who are not Anesthesia Professionals to Administer Anesthetic Drugs to Establish a Level of Moderate Sedation", October 2005.
- 8. American Society of Anesthesiologists, Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists, <u>Anesthesiology</u>, 2002; 96:1004-17.
- 9. American Society of Anesthesiologists (ASA): Physical Status Classification System, approved by ASA Committee on Economics, amended December 13, 2020.
- 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, October 27, 2004, amended on October 23, 2019.

- 11. American Society of Anesthesiologists, Statement on Safe Use of Propofol, approved by ASA House of Delegates on October 27, 2004.
- 12. American Society of Anesthesiologists, Statement on Granting Privileges to Non-Anesthesiologist Practitioners for Personally Administering Deep Sedation or Supervising Deep Sedation by Individuals who are not Anesthesia Professionals, approved by ASA House of Delegates on October 18, 2006.
- 13. Emergency Nurses Association Position Statement, "Procedural Sedation and Analgesia in the Emergency Department", 2005.
- 14. Godwin, et.al., Clinical Policy: Procedural Sedation and Analgesia in the Emergency Department, Annals of Emergency Medicine, 2005; 45(2): 177-196.
- 15. Green, S.M. and B. Krauss, Clinical Practice Guideline for Emergency Department Ketamine Dissociative Sedation in Children, Annuals of Emergency Medicine; 2004; 44(5): 460-471.
- 16. Priestley, et.al., Ketamine sedation for children in the emergency department, <u>Emergency Medicine</u>; 2001; 13:82-90.

Other State Boards of Nursing Sedation/Analgesia Practice Advisories

California Board of Registered Nursing, Practice Advisory, Conscious Sedation, 1997.

Kansas State Board of Nursing Position Statement, Administration of IV "Conscious Sedation" (Moderate Sedation/Analgesia) by the Registered Professional Nurse, 2003.

Kentucky Board of Nursing, Advisory Opinion Statement, Intravenous Administration of Medications for Sedation by Nurses, 2005.

Maine State Board of Nursing, Practice Questions, Anesthetic Agents, 2006.

Minnesota Board of Nursing, Statement of accountability for administration of medications classified as anesthetics by the registered nurse, October 13, 2005.

Montana Board of Nursing, Practice Advisory, IV Conscious Sedation by RNs, 1995.

Nevada State Board of Nursing, Practice Advisory, Procedural Sedation, 2007.

Oklahoma Board of Nursing, Guidelines for Registered Nurse Managing and Monitoring Conscious Sedation, 1999.

Oklahoma Board of Nursing, Guidelines for the RN in Administering, Managing and Monitoring Patients Receiving Analgesia/Anesthesia by Catheter Techniques (Epidural, Intrathecal, Spinal, PECA Catheters), 1992. Oregon State Board of Nursing, Policy guideline: Nursing Scope of Practice for Use of Sedating and Anesthetic Agents, 2006.

Texas Board of Nurse Examiners, Position Statement 15.8 - The Role of the Nurse in Moderate Sedation, revised 2006.

Washington State Board of Nursing, Scope of Practice for the Registered Nurse in the Administration of Procedural Sedation and the Management of Patients Receiving of Procedural Sedation, revised 2005.

Wisconsin Board of Nursing, Wisconsin Board of Nursing clarifies administration of propofol, October 14, 2008.