



PROCEDURAL SEDATION/ANALGESIA

POSITION STATEMENT for RN Practice

A Position Statement is not a regulation of the NC Board of Nursing and does not carry the force and effect of law and rules. A Position Statement is not an interpretation, clarification, or other delineation of the scope of practice of the Board. A Position Statement is adopted by the Board as a means of providing direction to licensees who seek to engage in safe nursing practice. Board Position Statements address issues of concern to the Board relevant to protection of the public and are reviewed regularly for relevance and accuracy to current practice, the Nursing Practice Act, and Board Administrative Code Rules.

Issue: Administration of sedative, analgesic, and anesthetic pharmacological agents, for the purpose of Moderate or Deep Procedural Sedation/Analgesia, to non-intubated clients undergoing therapeutic, diagnostic, and surgical procedures, is within the non-anesthetist Registered Nurse (RN) scope of practice.

Administration of pharmacologic agents for Moderate and/or Deep Procedural Sedation/Analgesia by an RN (who is not a licensed/certified anesthesia provider) **requires all of the following:**

- Policies and procedures of employing agency authorize RN-administered Moderate and/or Deep Procedural Sedation/Analgesia;
- The RN possesses specific knowledge and validated competencies as described in this Position Statement;
- The RN responsible for sedation/analgesia administration and monitoring of a client receiving moderate or deep sedation/analgesia does NOT assume other responsibilities which would leave the client unattended, thereby jeopardizing the safety of the client;
- The Physician, CRNA, NP, or PA ordering RN-administered Moderate Procedural Sedation/Analgesia is physically present in the procedure area and immediately available during the time moderate procedural sedation/analgesia is administered; and,
- The Physician, CRNA, NP, or PA ordering RN-administered Deep Procedural Sedation/Analgesia is physically present at the bedside throughout the time deep sedation/analgesia is administered.

The intended level of sedation/analgesia may quickly change to a deeper level due to the unique characteristics of the pharmacological agents used, as well as the physical status and drug sensitivities of the individual client. The administration of these pharmacologic agents requires ongoing assessment and monitoring of the client and the ability to respond immediately to deviations from the norm.

Given the level of independent assessment, decision-making, and evaluation required for safe care, nursing care of these clients exceeds Licensed Practical Nurse (LPN) scope of practice.

Exclusions from NCBON Procedural Sedation/Analgesia Position Statement:

1. Advanced Practice Registered Nurse - Certified Registered Nurse Anesthetists (APRN-CRNAs) are professional anesthesia providers qualified by education, certification, licensure, registration, and experience to administer anesthesia and all levels of procedural sedation. CRNA scope of practice exceeds and is not limited by the constraints of this Position Statement.

Administration of general anesthesia, including the use of inhalation anesthetics, is limited solely to anesthesia providers, including CRNAs. (Note: Nitrous oxide, used as a procedural sedative/analgesic agent, is the ONLY agent that can be administered by non-anesthetist RNs via the inhalation route.)

2. Administration of sedation/analgesia for the purpose of intubation, including Rapid-Sequence Intubation (RSI), is within RN scope of practice with specific education, competence, and policies and procedures as detailed in the NC BON RSI Position Statement available at www.ncbon.com.
3. Administration of medications for moderate to deep sedation/analgesia of already-intubated, critically ill clients is within RN scope of practice and is not limited by the constraints of this Position Statement.
4. The following are within scope of practice for both RNs and LPNs and are not limited by the constraints of this Position Statement:
 - Administration of Analgesia for pain control without sedatives,
 - Administration of Minimal Sedation/Analgesia (Anxiolysis),
 - Administration of Topical/Local Anesthesia, and,
 - Administration of Sedation/Analgesia solely for the purpose of managing altered mental status.

Definitions:

American Society of Anesthesiologists (ASA) Physical Status Classification –

- a. Class I – normally healthy client
- b. Class II – client with mild systemic disease
- c. Class III – client with severe systemic disease
- d. Class IV – client with severe systemic disease that is constant threat to life
- e. Class V – a moribund client who is not expected to survive 24 hours with or without the procedure.

Anesthetic Agents – medications that, when administered, cause partial or complete loss of sensation, with or without loss of consciousness

Computer-assisted personalized sedation/analgesia devices - integrated drug infusion pump and physiological client monitoring system that administers medication (i.e., propofol) intravenously for initiation and maintenance of minimal to moderate procedural sedation/analgesia. The device continually monitors client physiological parameters and responsiveness, detects signs associated with over-sedation/analgesia, and adjusts the medication delivery rate to limit the depth of sedation/analgesia.

Deep Sedation/Analgesia – drug-induced depression of consciousness during which clients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The client's ability to independently maintain ventilatory function may be impaired. Clients may require assistance to maintain a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

General Anesthesia – drug-induced loss of consciousness during which clients are not arousable, even by painful stimulation. The client's ability to independently maintain ventilatory function is often impaired. Clients 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.

Immediately available – present on site in the unit of care and not otherwise engaged in any other uninterrupted procedure or task.

Minimal Sedation/Analgesia (Anxiolysis) – drug-induced state during which clients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular

functions are unaffected. Administration of medications appropriate for this purpose include benzodiazepines and opioids, but not anesthesia agents, and is within the scope of practice for both RNs and LPNs.

Moderate (Conscious) Sedation/Analgesia – drug-induced depression of consciousness during which the client responds purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required for the client to maintain a patent airway and adequate spontaneous ventilation. Cardiovascular function is usually maintained.

Monitored Anesthesia Care (MAC) – anesthesia care that includes the monitoring of the client by a practitioner who is qualified to administer anesthesia. Indications for MAC depend on the nature of the procedure, the client's clinical condition, and/or the potential need to convert to a general or regional anesthetic.

Procedural Sedation/Analgesia – technique of administering sedatives or dissociative agents, with or without analgesics, to induce a state that allows the client to tolerate unpleasant procedures while maintaining cardiovascular and respiratory function.

Rapid-Sequence Intubation (RSI) – airway management technique in which potent sedative or induction agent is administered 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.

(For details see NCBON RSI Position Statement at www.ncbon.com.)

Regional Anesthesia – delivery of anesthetic medication at a specific level of the spinal cord and/or to peripheral nerves, including epidurals and spinals and other central neuraxial nerve blocks, is used when loss of consciousness is not desired but sufficient analgesia and loss of voluntary and involuntary movement is required.

Rescue Capacity – requires the competency to manage a compromised airway, provide adequate oxygenation and ventilation, and administer emergency medications and/or reversal agents to clients whose level of sedation becomes deeper than intended.

Sedating Agent – medication that produces calmness, relaxation, reduced anxiety, and sleepiness when administered.

Topical or Local Anesthesia – application or injection of a medication or combination of medications to stop or prevent a painful sensation to a circumscribed area of the body where a painful procedure is to be performed. There are generally no systemic effects of these medications, which are also not anesthesia, despite the name.

RN Education and Competency Requirements for Procedural Sedation/Analgesia:

Education, training, experience, and validation of initial and ongoing competencies appropriate to RN responsibilities, procedures performed, and the client/population must be documented and maintained. (Note: Employing agency determines frequency with which ongoing competencies are re-validated.)

A. The RN administering moderate and/or deep procedural sedation/analgesia must possess in-depth knowledge of and validated competency to apply the following in practice:

1. Anatomy & physiology, including principles of oxygen delivery, transport and uptake, cardiac dysrhythmia recognition and interventions, and complications related to moderate and deep procedural sedation/analgesia;
2. Pharmacology of sedation, analgesia, and anesthetic agent(s) administered singly or in combination, including appropriate administration routes, drug actions, drug interactions, side effects, contraindications,

reversal agents (as applicable), and untoward effects;

3. Airway management skills required to rescue a patient from sedation/analgesia level deeper than intended and to manage a compromised airway or hypoventilation (i.e., establish an open airway, head-tilt, chin lift, use of bag-valve mask, and oral and nasal airways); and,
4. Advanced Cardiac Life Support (ACLS) and/or Pediatric Advanced Life Support (PALS) certification including dysrhythmia recognition, cardioversion/defibrillation, and emergency resuscitation appropriate to the status of the client/population.

B. In addition, the RN administering moderate and/or deep procedural sedation/analgesia must possess validated practice competencies needed to:

5. Assess total client care needs before and during the administration of moderate or deep procedural sedation/analgesia and throughout the recovery phase, including implementing nursing care strategies appropriate to the client's ASA Physical Status Classification as determined by Physician, CRNA, Nurse Practitioner (NP), or Physician's Assistant (PA);
6. Perform appropriate physiologic measurements and evaluation of respiratory rate; oxygen saturation; carbon dioxide level; blood pressure; cardiac rate and rhythm; and level of consciousness;
7. Assess, identify, and differentiate the levels of sedation/analgesia and provide monitoring appropriate to the client's desired and actual level of sedation/analgesia;
8. Identify and implement appropriate nursing interventions in the event of sedation/analgesia complications, untoward outcomes, and emergencies; and,
9. Assess sedation/analgesia recovery including the use of a standardized discharge scoring system.

Agency Responsibilities in Procedural Sedation/Analgesia:

Based on client care needs, facility regulations, accreditation requirements, applicable standards, personnel, equipment, and other resources, each employing agency determines IF the administration of moderate and/or deep procedural sedation/analgesia by non-anesthetist RNs is authorized in their setting. If administration of moderate and/or deep procedural sedation/analgesia by non-anesthetist RNs IS permitted, the Director of Nursing or lead RN in the employing agency, in collaboration with anesthesia providers and other appropriate agency personnel, is responsible for assuring that written policies and procedures, including but not limited to the following, are in place to address:

1. Credentialing requirements for non-anesthesiologist Physicians, NPs, and PAs approved to perform moderate and/or deep procedural sedation/analgesia;
2. Required documentation of initial and ongoing RN education and competency validation in the manner and at the frequency specified by agency policy;
3. Physician, CRNA, NP, or PA (not the non-anesthetist RN) responsibility for pre-procedure assessment of the client, including assessment and determination of ASA Physical Status Classification score;
4. Number and qualifications of personnel to be present in the room during RN administration of moderate and/or deep procedural sedation/analgesia and requirement that designated personnel are competent to rescue the client should the airway or hemodynamic status be compromised;

5. Requirement that the Physician, CRNA, NP, or PA ordering RN-administered moderate procedural sedation/analgesia be physically present in the procedure area and immediately available during the time moderate procedural sedation/analgesia is administered in order to respond and implement emergency protocols in the event level of sedation deepens or another emergency occurs;
6. Requirement that the Physician, CRNA, NP, or PA ordering RN-administered deep procedural sedation/analgesia be physically present at the bedside throughout the time deep sedation/analgesia is administered in order to respond in the event of an emergency;
7. Requirement that the RN responsible for sedation/analgesia administration and monitoring of a client receiving moderate or deep sedation/analgesia will NOT assume other responsibilities which would leave the client unattended, thereby jeopardizing the safety of the client;
8. Specification of nursing care responsibilities for client assessment, monitoring, medication administration, potential complications, and documentation during moderate and/or deep procedural sedation/analgesia;
9. Specification of medications approved to be ordered and administered by RNs for moderate and/or deep procedural sedation/analgesia, including dosage limits as appropriate;
10. Specification of emergency protocol(s) including immediate on-site availability of resuscitative equipment, medications, and personnel; and
11. Requirement that age and size-appropriate procedural equipment, emergency resuscitation equipment, and medications, as well as personnel qualified to provide necessary emergency measures, such as intubation and airway management, be readily available during moderate and/or deep procedural sedation/analgesia. Age and size-appropriate equipment includes, but is not limited to:
 - blood pressure cuff and stethoscope
 - cardiac monitor and defibrillator
 - oxygen and suction devices
 - pulse oximetry and capnography
 - positive pressure ventilation equipment
 - intravenous administration devices & fluids
 - basic and advanced airway management devices
 - medications including sedatives, analgesics, reversal agents for opioids or benzodiazepines, and resuscitation drugs

Note: RNs retain responsibility and accountability for direct client assessment, intervention, and evaluation throughout the administration of moderate or deep procedural sedation/analgesia. Mechanical monitoring and medication administration devices (e.g., cardiac monitors, infusion pumps, and computer-assisted personalized sedation/analgesia devices) do not replace, but rather support, the RN's assessment and evaluation of client status.

Note: Pulse oximetry measures oxygenation, not ventilation. In the presence of supplemental oxygen, arterial oxygen desaturation as measured by pulse oximetry may represent a delayed sign of hypoventilation. For this reason, monitoring pulse oximetry is not a substitute for direct observation of patient ventilatory function. Capnography may be able to detect hypoventilation before pulse oximetry indicates oxygen desaturation and has been shown to be a more sensitive gauge of hypoventilation than visual observation.

RN Role in Moderate and Deep Procedural Sedation/Analgesia:

1. The administration and monitoring of sedating and anesthetic agents to produce moderate or deep procedural sedation/analgesia for non-intubated adult and pediatric clients undergoing therapeutic, diagnostic, or surgical procedures is within the non-anesthetist RN scope of practice.

2. The RN must be educationally prepared; clinically competent; permitted to administer moderate and/or deep procedural sedation/analgesia by agency written policies and procedures; and not prohibited from doing so by facility-focused laws, rules, standards, and policies.
3. A qualified anesthesia provider (anesthesiologist or CRNA) or appropriately credentialed attending physician, NP, or PA must assess client, determine ASA Physical Status Classification, select, and order the sedative/anesthetic agents to be administered; intended level of sedation/analgesia must be clearly communicated.
4. The RN is accountable for ensuring that moderate and/or deep procedural sedation/analgesia orders implemented are consistent with the current standards of practice and agency policies and procedures.
5. The RN accepts the assignment to administer ordered moderate or deep procedural sedation/analgesia only if competent and the practice setting has provided the age and size-appropriate equipment, medications, personnel, and related resources needed to assure client safety.
6. The RN administers moderate procedural sedation/analgesia to adult and pediatric clients only if a Physician, CRNA, NP, or PA credentialed by the facility in moderate procedural sedation/analgesia, and competent in airway management, is physically present in the procedure area and immediately available in order to respond and implement emergency protocols in the event level of sedation deepens or another emergency occurs.
7. The RN administers deep procedural sedation/analgesia to adult and pediatric clients only if a Physician, CRNA, NP, or PA credentialed by the facility in deep procedural sedation/analgesia, and competent in intubation and airway management, is present at the bedside in order to respond to any emergency.
8. The RN role in moderate and deep procedural sedation/analgesia is dedicated to the continuous and uninterrupted monitoring of the client's physiologic parameters and administration of medications ordered.
9. The administration of all medications via any appropriate route (including Nitrous Oxide via inhalation) for the purpose of moderate or deep procedural sedation/analgesia is within RN scope of practice. Medications, including *Etomidate, Propofol, Ketamine, Fentanyl, and Midazolam*, administered for moderate and/or deep procedural sedation/analgesia purposes, if ordered by Physician, CRNA, NP, PA, or other credentialed health care practitioner, and allowed by agency policy, is not prohibited provided the appropriate indications and precautions are in place.

LPN Role in Moderate and Deep Procedural Sedation/Analgesia: Given the level of independent nursing assessment, decision-making, and evaluation required for the safe care and management of clients undergoing therapeutic, diagnostic, and surgical procedures, the administration of sedation/anesthetic agents for the purposes of moderate or deep procedural sedation/analgesia is **beyond** LPN scope of practice.

RN and LPN Role in Regional Anesthesia: Regional anesthesia requires anesthetic agent delivery at a specific level of the spinal cord and/or to peripheral nerves, including epidurals, spinals, and other central neuraxial nerve blocks, when loss of consciousness is not desired but sufficient analgesia and loss of voluntary and involuntary movement is required. In these situations the positioning and stabilization of the client receiving regional anesthesia is sometimes challenging and the provider performing the procedure may need mechanical

assistance from the nurse (RN or LPN) to attach and/or push the medication syringe plunger while personally maintaining appropriate positioning of the medication delivery device.

In such situations, the nurse may provide the needed manual support by functioning as the “third hand” of the provider. When acting as the provider’s “third hand”, the nurse is not accepting responsibility for administration of regional anesthesia, which is **beyond** both RN and LPN scope of practice. Instead, the provider retains full responsibility for the appropriate medication administration and accountability for outcomes.

Note:

1) This “third hand” specification does not include the administration of anesthetic agents by the non-anesthetist nurse in any other situation. It is not permissible for the RN or LPN to function as the “third hand” of, or to provide only manual support or mechanical assistance to, a provider in the administration of moderate or deep procedural sedation/analgesia. To do so leaves the provider with responsibility for both performing the procedure and monitoring the patient. Moderate and/or deep procedural sedation/analgesia requires careful monitoring by a dedicated person. Therefore, the RN who administers moderate or deep sedation (this is beyond LPN scope of practice) is providing a nursing intervention and retains full accountability and responsibility for his/her actions. The RN functioning in this capacity must meet the Moderate/Deep Procedural Sedation education and competence requirements as delineated in this Position Statement.

2) It is within RN scope of practice to administer ordered additional or subsequent medication doses through a pre-established, indwelling epidural/caudal device per provider order. This constitutes RN medication administration for which the RN retains full responsibility and accountability. This is not within LPN scope of practice and is not considered manual or “third hand” assistance.

References:

21 NCAC 36.0224 (b)(d)(e) - RN Rules

21 NCAC 36.0225 (b)(d)(e) - LPN Rules

American Association of Nurse Anesthetists (AANA) – www.aana.com – Resources section provides specific policy considerations for Registered Nurses Engaged in the Administration of Sedation/Analgesia

American Association of Moderate Sedation Nurses (AAMSN) – www.aamsn.org – Resources section provides information on Certified Sedation Registered Nurses (CSRN).

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