

North Dakota Board of Nursing Practice Guidance

Role of the Nurse in Sedation/Analgesia

Guidance regarding the interpretation and application of the Nurse Practices Act may be adopted by the Board as a means of providing direction to licensees and stakeholders who seek to ensure safe nursing practice and address issues of concern relevant to public protection [*Nurse Practices Act (NPA), North Dakota Century Code (NDCC) 43-12.1-08 (2)(p)*].

Board approved practice guidance does not carry the force and effect of the law/rules. Each licensed nurse is “responsible and accountable to practice according to the standards of practice prescribed by the board and the profession”; and must “accept responsibility for judgements, individual nursing actions, competence, decisions, and behavior in the course of nursing practice” (*Standards of Practice, North Dakota Administrative Code (NDAC) 54-05-01-07 and 54-05-02-04*). "Competence" means the application and integration of knowledge, skills, ability, and judgment necessary to meet standards (*NDAC 54-01-03-01(16)*).

Background/Significance

The role of the nurse in the administration and monitoring of anesthetic agents for sedation/analgesia has recently been a national focus of regulatory concern and consideration due to the dynamic and evolving nature of the utilization of these medications.

The North Dakota Board of Nursing (Board) has received several practice inquiries related to the role of the registered nurse (RN) in administration and monitoring of anesthetic agents for a variety of indications and dosages in various settings. In response, the Board discussed the inquiries and reviewed existing practice statements pertaining to the role of the nurse in sedation/analgesia. In August 2017, an Advisory Panel convened to address the inquiries.

The advisory panel consisted of three registered nurses and two Certified Registered Nurse Anesthetists (CRNA) from various practice settings in ND. In addition, the Chair of the advisory panel was an Advance Practice Registered Nurse (APRN) Board member who is also a CRNA. The panel explored the RN role in administration and monitoring of anesthetic agents for sedation/analgesia in various settings, including levels of sedation, indications, and dosages. The following tasks were completed:

- Reviewed the related Board practice statements
- Reviewed current evidence-based nursing and healthcare literature
- Completed the Scope of Practice Decision-Making Framework adopted by the Board
- Provided input regarding current practice related to the RN role in administration and monitoring of sedation/analgesia

Definitions:

(1) Levels of sedation

- Minimal Sedation (Anxiolysis): drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.
- Moderate Sedation/Analgesia (Conscious Sedation): 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.

- Deep Sedation/Analgesia: 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.
- General Anesthesia: 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.

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

(2) The term “nurse” used in this document refers to the RN and the APRN who is not a CRNA.

This practice guidance is NOT intended to apply to:

- Deep sedation and general anesthesia.
- The practice of the licensed practical nurse (LPN), since the administration and monitoring of patients receiving sedation/analgesia is not within the scope of the LPN; or
- The practice of the nurse who holds licensure as an APRN in the role and population focus of CRNA functioning within his/her authorized scope of practice; or
- The nurse practicing in a critical care setting, where the client in question is intubated, receiving mechanical ventilatory support, and continuously monitored; or
- The nurse administering nitrous oxide as a single sedative agent for anxiolysis/analgesia, which is not being administered concurrently with any other anesthetic agent or narcotic analgesic; or
- The nurse monitoring maternal self-administration of nitrous oxide during labor for anxiolysis/analgesia.

Role of the Nurse

All licensed nurses practicing in North Dakota are required to know and comply with the NPA (law) and NDAC (rules). NDAC 54-05-02-05 requires the nurse to “*promote a safe and therapeutic environment.*” The NDAC 54-05-02-06 states the “*registered nurse is responsible and accountable for the care provided and for assuring the safety and wellbeing of the client*”. This standard establishes the nurse’s duty to the client, which **supersedes any licensed practitioner order or any facility policy**. This duty to the client requires the nurse to use informed professional judgement consistent with applicable law and rules when choosing to assist or engage in any procedure.

The law and rules are not prescriptive to specific tasks a nurse may or may not perform. The nurse should consider evidence-based practice guidelines put forth by professional organizations with clinical expertise in the administration of pharmacologic agents used for sedation/analgesia as well as advanced airway management and cardiovascular support.

Several professional specialty organizations have well-defined standards and recommendations for ongoing nursing education and competency assessment related to administration and monitoring of

clients receiving sedation/analgesia. These organizations include the American Association of Nurse Anesthetists (AANA), the American Nurses Association (ANA), the Association of periOperative Registered Nurses (AORN), and the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). Statements published by the American Society of Anesthesiologists (ASA) also support the positions of the above nursing organizations. The Board also encourages the use of the adopted Scope of Practice Decision-Making Framework to guide the practice of the nurse.

Employing institutions should develop policies and procedures to guide the nurse in the administration of medications and client monitoring associated with sedation/analgesia. Policies and procedures should include but not be limited to:

- Performance of a pre-sedation health assessment by the licensed practitioner ordering the sedation/analgesia;
- Guidelines for client assessment, monitoring, drug administration, and a plan for managing potential complications or emergency situations developed in accordance with currently accepted standards of practice;
- Accessibility of emergency equipment and supplies;
- Documentation and monitoring of the level of sedation and physiologic measurements (e.g., blood pressure, oxygen saturation, cardiac rate, and rhythm);
- Documentation/evidence of initial education and training and ongoing competence of the nurse administering and/or monitoring clients receiving sedation/analgesia.

Pharmacologic Agent Considerations

It is up to facilities and licensed practitioners to determine specific pharmacologic agents to be used for sedation/analgesia. The Board advises the nurses use caution when deciding whether they have the competency to administer the specific pharmacologic agents ordered by the licensed practitioner. Since competency varies, what is within the scope of practice for one nurse is not necessarily within the scope of practice for another nurse.

Of concern to the Board is the growing number of inquiries related to nurses administering drugs commonly used for anesthesia purposes for sedation/analgesia for a variety of indications and dosages in various settings. It is critical for the nurse to appreciate the differences between *moderate sedation* and *deep sedation/anesthesia* (American Society of Anesthesiologists, 2014).

The client receiving anesthetic agents is at increased risk for loss of consciousness and/or normal protective reflexes, regardless of who is administering such agents. The loss of consciousness and/or protective reflexes may indicate progression into deep sedation, and this is not consistent with the concept of moderate sedation outlined in the professional literature.

According to the FDA product information, Propofol is classified as a sedative/hypnotic and is intended for use as an anesthetic agent or for maintaining sedation of an intubated, mechanically ventilated client. The product information 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 clients receiving anesthetic agents such as Propofol may vary widely within a negligible dose range. Though reportedly "short-acting," it is also noteworthy that there are **no** reversal agents for Propofol.

Though the nurse may have completed continuing education such as, but not limited to, Advanced Cardiac Life Support (ACLS) and may have practiced techniques during the training program, this process does not ensure ongoing expertise in airway management and emergency intubation. The American Heart Association (AHA) has identified factors that contribute to misplacement of the endotracheal tube during resuscitation including: "inadequate training, lack of experience" and client characteristics such as physiology and movement. It is also important to note that no continuing education program, including ACLS, will ensure that the nurse has the knowledge, skills, and

abilities to rescue a client from deep sedation or general anesthesia. Furthermore, it is the joint position of the AANA and ASA that, "because sedation is a continuum, it is not always possible to predict how an individual client will respond." These organizations state only qualified anesthesia providers who are trained in the administration of general anesthesia should administer anesthetic agents, including induction agents.

Practice Guidance

It is the position of the Board that the administration of anesthetic agents (e.g., Propofol, methohexital, ketamine, and etomidate) for analgesia/sedation is outside the scope of practice for nurses **EXCEPT** in the following situations:

- When assisting in the physical presence of a CRNA or anesthesiologist (the CRNA or anesthesiologist may direct the nurse to administer anesthetic agents in conjunction with the CRNA or anesthesiologist intubating or otherwise managing the client's airway);
- When administering these medications to clients who are intubated and mechanically ventilated in critical care settings;
- When assisting the licensed practitioner during an intubation procedure in an emergency setting;
- When administering these medications for relief of refractory symptoms in intractable distress in the dying client

During routine diagnostic or therapeutic procedures, the safety of the client must be considered when assessing the need for staff appropriate to the procedure being performed. It would not be prudent to presume that the licensed practitioner will be able to abandon the procedure to assist in rescuing the client, if complications arise.

The Board stresses that the nurse's duty to assure client safety is an independent obligation under his/her professional licensure that supersedes any licensed practitioner order or facility policy. It is important to note that the nurse's duty to the client obligates him/her to decline orders to administer medications or doses of medications that have the potential to cause the client to reach a level of deep sedation or anesthesia outside the presence of a CRNA or anesthesiologist.

The practice of administering and monitoring sedation/analgesia is a multispecialty discipline that will continue to evolve. The regulation of nurse sedation/analgesia practice remains fragmented and poorly documented nationally. Currently, there are three major controversies related to nurse sedation/analgesia practice that the Board will continue to monitor. They are 1) variation in regulatory standards and guidelines, 2) lack of research related to nurse sedation/analgesia practice, and 3) lack of nurse sedation/analgesia national standards. The Board will continue to monitor the development of evidence related to sedation/analgesia practices and outcomes that will further inform practice guidance for nurses.

References

- American Association of Nurse Anesthetists and American Society of Anesthesiologists. (2013). *AANA–ASA Joint Position Statement Regarding Propofol Administration*. Retrieved from: [https://www.aana.com/docs/default-source/practice-aana-com-web-documents-\(all\)/aana-asa-propofol-joint-ps.pdf?sfvrsn=f80049b1_2](https://www.aana.com/docs/default-source/practice-aana-com-web-documents-(all)/aana-asa-propofol-joint-ps.pdf?sfvrsn=f80049b1_2).
- American Association of Nurse Anesthetists. (2016). *Non-anesthesia Provider Procedural Sedation and Analgesia: Policy Considerations*. Retrieved from [https://www.aana.com/docs/default-source/practice-aana-com-web-documents-\(all\)/non-anesthesia-provider-procedural-sedation-and-analgesia.pdf?sfvrsn=670049b1_](https://www.aana.com/docs/default-source/practice-aana-com-web-documents-(all)/non-anesthesia-provider-procedural-sedation-and-analgesia.pdf?sfvrsn=670049b1_).
- American Heart Association. (2017). *2017 American Heart Association guidelines for CPR & ECC*. Retrieved from <https://eccguidelines.heart.org/index.php/circulation/cpr-ecc-guidelines-2/>.
- American Nurses Association. (2008). *Procedural Sedation Consensus Statement*. Retrieved from <http://nursingworld.org/MainMenuCategories/Policy-Advocacy/Positions-and-Resolutions/ANAPositionStatements/Position-Statements-Alphabetically/Procedural-Sedation-Consensus-Statement.html>.
- American Society of Anesthesiologists. (2014). *Continuum of depth of sedation: Definition of general anesthesia and levels of sedation/analgesia*. Retrieved from <https://www.asahq.org/>.
- Arizona Board of Nursing. (2015). *Advisory opinion. Nitrous Oxide administration*. Retrieved from: <https://www.azbn.gov/media/1058/ao-nitrous-oxide-administration-rev32015.pdf>.
- Association of periOperative Registered Nurses. (2017). *Patient Care Guidelines: Care of the Patient Receiving Moderate Sedation Analgesia*. Retrieved from <https://www.aorn.org/guidelines/guideline-implementation-topics/patient-care>.
- Association of Women's Health, Obstetric and Neonatal Nurses. (2015). *Role of the registered nurse in the care of the pregnant woman receiving analgesia and anesthesia by catheter techniques*. Retrieved from [http://www.iognn.org/article/S0884-2175\(15\)31771-8/fulltext](http://www.iognn.org/article/S0884-2175(15)31771-8/fulltext).
- Crego, N. (2015). Procedural sedation practice: A review of current nursing standards. *Journal of Nursing Regulation*, 6(1), 50-56.
- Federal Drug Administration. (2017). Diprivan (Propofol) injectable emulsion, USP drug information. (https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/019627s066lbl.pdf).
- Hospice & Palliative Nurses Association. (2016). *Position Statement on Palliative Sedation*. Retrieved from <http://advancingexpertcare.org/wp-content/uploads/2016/01/Palliative-Sedation.pdf>.
- New Hampshire Board of Nursing. (2018). Position Statement. Definitions, and clinical practice advisories regarding the role of the RN and LPN in the administration of anesthesia, sedation and analgesia. Retrieved from: <https://www.oplc.nh.gov/nursing/documents/anesthesia-sedation-analgesia.pdf>.
- New York State Education Department. Office of the Professions. (2007). *Nursing: RN & LPN Practice Issues: Administration of IV anesthetic agents by non-anesthetist registered nurses for the purpose of sedation and anesthesia*. Retrieved from: <http://www.op.nysed.gov/prof/nurse/nurse-ivsedation.htm>.
- North Dakota Administrative Code, Article 54-05. *Standards of Practice*. Retrieved from: <http://www.legis.nd.gov/information/acdata/html/54-05.html>.

North Dakota Century Code, Chapter 43-12.1. *Nurse Practices Act*. Retrieved from: <http://www.legis.nd.gov/cencode/t43c12-1.pdf>.

North Dakota Board of Nursing. Practice Statement. (2013). *Role of the RN in administration of anesthetic agents*.

North Dakota Board of Nursing. Practice Statement. (2012). *Role of registered nurse in the management of patients receiving moderate sedation/analgesia for therapeutic, diagnostic, or surgical procedures*.

Texas Board of Nursing. (2017). [FAQ: Off label use of medication](http://www.bon.texas.gov/faq_nursing_practice.asp#t21). Retrieved from: http://www.bon.texas.gov/faq_nursing_practice.asp#t21.

Texas Board of Nursing. (2012). [Nurses on guard- best practices in patient safety: Off-label administration of Ketamine for pain management by a nurse](#). *Texas Board of Nursing Bulletin*, 43(4), 5-6.

Texas Board of Nursing. (2015). *Position statement 15.8: Role of the nurse in moderate sedation*. Retrieved from: http://www.bne.state.tx.us/practice_bon_position_statements_content.asp#15.8.