

KENTUCKY BOARD OF NURSING

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ADVISORY OPINION STATEMENT

The Role of Nurses in Procedural Sedation, Analgesia and Airway Management in Various Settings

The Kentucky Board of Nursing is authorized by Kentucky Revised Statutes (KRS) Chapter 314 to regulate nurses, nursing education and practice, promulgate regulations and to issue advisory opinions on nursing practice, in order to assure that safe and effective nursing care is provided by nurses to the citizens of the Commonwealth.

The Kentucky Board of Nursing issues advisory opinions as to what constitutes safe nursing practice. As such, an opinion is not a regulation of the Board and does not have the force and effect of law. It is issued as a guideline to licensees who wish to engage in safe nursing practice, and to facilitate the delivery of safe, effective nursing care to the public.

Opinion:

The Role of Nurses in Procedural Sedation, Analgesia and Airway Management in Various Settings

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Accountability and Responsibility of Nurses

In accordance with KRS 314.021(2), nurses are responsible and accountable for making decisions that are based upon the individuals' educational preparation and current clinical competence in nursing, and requires licensees to practice nursing with reasonable skill and safety. Nursing practice should be consistent with the *Kentucky Nursing Laws*, established standards of practice, and be evidence based.

Rationale for Advisory Opinion

The Board has received multiple inquiries related to the scope of nursing practice as it pertains to the administration of pharmacological agents for local anesthesia in the dental setting, procedural sedation and analgesia, administration of medication per intraspinal routes for the purpose of analgesia and/or anesthesia, and the removal of laryngeal mask airway (LMA). After review of the statutes governing nursing practice, curricula of prelicensure and continuing education nursing programs, standards of nursing practice, and study of the aforementioned mentioned concerns the Kentucky Board of Nursing issued this advisory opinion modeled in part from the 2008 Procedural Sedation Consensus Statement.

This opinion statement **does not** apply to the advanced practice registered nurse designated as a certified registered nurse anesthetist (CRNA) functioning within his/her authorized scope of practice.

Nursing Interventions identified in this Advisory Opinion Statement include:

The Role of Nurses in the performance of:

- Administration, Management, and Monitoring of Procedural Sedation and Analgesia
- Analgesia Via Intraspinal (Epidural/Intrathecal) Routes
- o Anesthesia Via Spinal, Epidural or Caudal Routes
 - Insertion and Repositioning
 - Removal of an Epidural, Intrathecal, or Caudal Catheter by Registered Nurses
- Local Anesthesia in a Dental Setting
- Palliative Sedation
- o Rapid Sequence Intubation
- o Removal of Laryngeal Mask Airway

<u>Advisory Opinion:</u> Administration, Management, and Monitoring of Procedural Sedation and Analgesia

The Board recognizes that the increased demand for sedation and analgesia in the practice setting necessitates the provision of procedural sedation and analgesia by registered nurses (RNs) and Advanced Practice Registered Nurses (APRNs).

Per Kentucky Revised Statute 314.011, the administration of medications is within the scope of practice of nurses in Kentucky. While the administration of medications is a task performed routinely as a part of nursing care, many medications have the potential for serious side effects even when ordered and administered correctly. The Kentucky Board of Nursing expects that nurses will utilize critical thinking and reasonable clinical nursing judgment prior to each episode of medication administration to discern whether administering a medication is appropriate.

Rather than focus on a particular medication, the Board advises that it is more appropriate to focus on the level of sedation. The Board recognizes the four levels of sedation and definitions written by the American Society of Anesthesiologists and accepted by the Joint Commission.

Level	Definition		
(anxiolysis)	A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular function is usually maintained.		
Sedation/ Procedural	A drug-induced depression of conscious sedation during which patients respond purposefully to verbal commands either alone or accompanied by light tactile stimulation. No interventions are required to maintain the patient's airway, and spontaneous ventilation is adequate. Cardiovascular function usually is maintained.		
·	A drug-induced depression of consciousness sedation during which patients cannot be aroused easily, but they 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 usually is maintained.		
	General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even with painful stimulation. The ability to independently maintain ventilator 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.		

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It is the responsibility of facilities and prescribers to determine specific pharmacologic agents used for procedural sedation and analgesia. It is not within the authority of the Board to determine how or for what purpose a specific drug is being administered.

The administration of pharmacologic agents for the purpose of procedural sedation requires mastery of complex nursing knowledge, advanced skills, and the ability to make independent nursing judgments during an unstable and unpredictable period for the patient.

Licensed Practical Nursing Practice

It is the opinion of the Board that it is **NOT** within the scope of the licensed practical nurse to administer intravenous medications via push or bolus for procedural sedation or analgesia or for the purpose of anesthesia.

Registered Nursing Practice

It is within the scope of registered nursing practice for the RN who is educationally prepared and currently clinically competent to administer medications for procedural sedation and analgesia.

It is **NOT** within the scope of registered nursing practice to administer medications for the purpose of anesthesia.

The registered nurse has the right and obligation to refuse to administer and/or continue to administer medication(s) in amounts that may induce anesthesia.

Advanced Practice Registered Nursing Practice

Both the administration of medications for procedural sedation and analgesia and the administration of medications for regional anesthesia, along with monitoring of the patient responses to such medications, are within the scope of practice of the APRN (other than those designated as a certified registered nurse anesthetist) who is educationally prepared and currently clinically competent in the performance of the procedures.

Administration, Management, and Monitoring of Procedural Sedation and Analgesia

The American Association of Nurse Anesthetist (2017) states administration of medications for safe procedural sedation and analgesia requires specific competencies that include

- The institution or practice setting has in place written policies, procedures, and signed protocols, developed in accordance with accepted standards of practice, to guide the RN or APRN (other than those designated as a certified registered nurse anesthetist) in the administration of medications and monitoring associated with procedural sedation and analgesia.
- 2. The institution or practice setting has in place an educational or competency validation mechanism that includes a process for evaluating and documenting the RN's or APRN's (other than those designated as certified registered nurse anesthetist) demonstration of the knowledge, skills, and abilities related to the management of patients receiving procedural sedation and analgesia. Evaluation and documentation of competence occur on a periodic basis according to institutional policy.
- The RN or APRN (other than those designated as a certified registered nurse anesthetist) directly
 providing the care of the patient receiving procedural sedation and analgesia should have no
 other responsibilities that would leave the patient unattended or compromise continuous
 monitoring.

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- 4. A valid authorized provider order is required to execute procedural sedation and analgesia. In executing a patient care regimen, the RN or APRN (other than those designated as a certified registered nurse anesthetist) should monitor, assess, and document the sedated patient's physiologic parameters, communicate changes in patient status to the authorized provider performing the procedure or other appropriate personnel, implement emergency measures as required, and maintain continuous intravenous access for circulatory support.
- Provisions are in place for both the appropriate equipment and the immediate presence of personnel who are competent in airway management, and advanced cardiac life support if complications arise.

Regardless of practice setting or expected outcome, the Board advises that key components of safe administration of medications for procedural sedation and analgesia by nurses should include the educational preparation and demonstrated clinical competence of the nurse.

KRS 314.021(2) imposes individual responsibility and accountability upon nurses. Acts, which are within the permissible scope of practice for a given licensure level, may be performed only by those licensees who personally possess the education and clinical competence to perform those acts in a safe, effective manner.

The Board advises the RN or APRN (other than those designated as a certified registered nurse anesthetist) to use caution, in deciding whether the nurse has the competence to administer the specific pharmacologic agents ordered.

With regard to this issue, the Board recommends the nurse also take into consideration:

- 1. Availability of and knowledge regarding the administration of reversal agents for the pharmacologic agents used; and
- 2. If reversal agents do not exist for the pharmacologic agents used, then the nurse must consider his/her individual knowledge, skills, and competence to rescue the patient from unintended deep sedation/anesthesia using advanced cardiac life support, airway management equipment and techniques or the immediate presence of another healthcare provider(s) who can meet these requirements.

Advisory Opinion: Analgesia via Intraspinal (Epidural/Intrathecal) Routes

The administration of medication² for analgesia per intraspinal routes³, as prescribed by a documented order of a qualified provider, is within the scope of registered nursing practice and **not** within the scope of licensed practical nursing practice.

Registered nurses who administer medication via intraspinal routes:

- 1) are responsible for having substantial specialized knowledge and skill in the administration of medication per these routes;
- 2) should have documented evidence of completion of continuing education which provides for clinical practice and demonstrated competency in the performance of the procedure;

¹An authorized provider is an individual who is authorized to practice in this state and is acting within the course of the individual's professional practice, which includes, but is not limited to; adherence to the institution's credentialing requirements for the provider to perform procedural sedation procedures

² The administration of medications for analgesic purposes may include such medications as morphine sulfate (duramorph), bupivacaine (marcaine spinal), and sub-anesthesia dosages of ketamine hydrochloride.

³ Intraspinal routes - The administration of medication into the epidural or intrathecal space of the spinal cord via an intraspinal delivery system. An intraspinal delivery system may include a) a percutaneous epidural or intrathecal catheter, b) an implanted injection port or reservoir, or c) an implanted infusion pump.

- 3) are responsible for documentation of educational preparation and for maintaining competency In the performance of the procedure; and
- 4) should perform the procedure, according to approved written policies/procedures of the employing agency that are consistent with the legal definition of nursing practice, and include, but are not limited to the following:
 - · indications for use
 - patient selection criteria
 - mode of infusion
 - patient assessment and plan of care
 - management of side effects and potential complications
 - · care of catheter
 - nursing implications

Advisory Opinion: Anesthesia via Spinal, Epidural or Caudal Routes

The responsibilities, both for the administration of medication for the purpose of anesthesia per spinal, epidural, or caudal routes, and for the monitoring of the patient's reaction or response to such medication are within the scope of practice of the advanced practice registered nurse, designated nurse anesthetist; such acts are <u>not</u> within the scope of registered nursing practice as defined in KRS 314.011(6). Therefore, specific procedures involved in the administration of anesthetic agents via these routes are not appropriate functions for registered nurses, and include, but are not limited to the following:

- 1) Injection of medications for the purpose of anesthesia via intraspinal catheter;
- 2) Changing of syringes on an intraspinal catheter being utilized for anesthesia;
- 3) Adjustment of anesthetic infusion rates per volume control or rate regulators when the physician/anesthesiologist/CRNA is not present to monitor the patient's response.

Advisory Opinion: Insertion and Repositioning

The insertion, advancement, or repositioning of a percutaneous epidural, intrathecal, or caudal catheter is **not** within the scope of registered nursing practice, but is within the scope of practice of the advanced practice registered nurse, designated nurse anesthetist.

Advisory Opinion: Removal of an Epidural, Intrathecal, or Caudal Catheter by Registered Nurses

Registered nurses, who have documented evidence of educational preparation and clinical competence in the performance of the procedure, may remove an epidural, intrathecal, or caudal catheter, inserted for the purpose of anesthesia or analgesia, based upon:

- 1) documentation of uncomplicated catheter insertion;
- 2) documentation that no catheter related complications⁴ have occurred since the insertion of the catheter;
- 3) a direct order of the physician/APRN/CRNA who is responsible for the patient; and
- 4) an approved written facility/nursing policy and procedure

⁴Catheter related complications may include, but are not limited to: a) kinking, knotting, shearing, compression or leakage of the catheter, b) unilateral anesthesia, c) extrusion of the catheter out of the epidural/intrathecal space, d) unpredictability of the direction of the catheter, e) fibrosis, or f) infection.

Advisory Opinion: Scope of Practice Administration of Local Anesthesia in a Dental Setting

The Board reaffirmed the advisory opinion issued in June 2004, in part... "It was the advisory opinion of the Board that the administration of local anesthesia to dental patients is within the scope of registered nursing practice for the nurse who possesses the requisite education preparation and current clinical competency to perform the act in a safe effective manner. The nurse's practice should be consistent with the *Kentucky Nursing Laws* and established standards of practice, and be evidence-based."

Nursing Practice

It is the advisory opinion of the Board that the administration of local anesthesia to dental patients is **not** within the scope of the licensed practical nurse.

Airway management is defined as the assessment, planning, and necessary procedures to restore or maintain ventilation or breathing allowing for adequate airflow from the nose and mouth into the lungs (Syed, 2023).

Advisory Opinion: Rapid Sequence Intubation

Rapid sequence intubation (RSI) is defined by the American College of Emergency Physicians (ACEP) in their *Rapid-Sequence Intubation Patient-Care Policy Statement, (2018)* 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 ACEP's policy statement on *Unscheduled Procedural Sedation: A Multidisciplinary Consensus Practice Guideline (2018)* states "...qualified registered nurses routinely administer sedatives and paralytics for intubation under direct supervision of an ordering provider, they are similarly qualified and capable of administering medications for procedural sedation while under the direct supervision of the ordering provider."

The Board reaffirms its previous opinion that:

The administration of sedation medications and/or neuromuscular blocker agents for rapid sequence intubation (RSI) is within the scope of registered nursing practice when:

- Administration of the medication is performed under the direct supervision/immediate presence
 of the physician, or APRN designated nurse anesthetist.
- The registered nurse is educated, trained, and experienced to perform the procedure in a safe, competent manner. Validation of initial and ongoing competencies, appropriate to the registered nurse, are documented and maintained.
- Monitoring of the patient is according to accepted standards of practice for RSI and is performed according to the facility's established, written policies and procedures.

Advisory Opinion: Palliative Sedation

The Board recognizes the position of the *Hospice and Palliative Nurses Association* (2016) that "There may be situations when conscious patients who are imminently dying may experience intractable symptoms that are intolerable and are unrelieved by expert palliative care. In these circumstances, palliative sedation may be utilized to reduce suffering".

Nursing Practice

Thus, it is the Board's opinion that it is within the scope of nursing practice for a registered nurse or licensed practical nurse, except as limited by Kentucky Nursing Law, qualified by education and current clinical competence, to administer medications for sedation as ordered by a qualified provider for the purposes of palliative care.

Advisory Opinion: Removal of Laryngeal Mask Airway (LMA)

The laryngeal mask airway (LMA), a supraglottic airway device, is often used in emergency settings due to its application for management of difficult airways. It is easy to use and put into place with a success rate of almost 100% in the operating room. There is a reduced rate of aspiration by the patient when an LMA is correctly aligned (Burns, 2001).

The LMA, a supraglottic airway device, used in the operating room:

- o For short procedures when endotracheal intubation is not necessary,
- o When the patient cannot be intubated, to provide assistance in intubation, and
- o In cardiac arrest, or as a rescue device when intubation attempts have failed.

According to the *American Society of Perianesthesia Nursing* (ASPAN) frequently asked questions, providing there are no restrictions in the state practice act state board of nursing and or other state professional registration requirements as well as state laws that prohibit the perianesthesia nurse from extubating patients, a post anesthesia care unit (PACU) nurse may extubate a patient provided the health care facility has extubation policies and procedures in place (2019). As to whether an anesthesia provider must be present, policies and procedures should include criteria describing when an anesthesia provider is required to be present. However, in all situations there must be someone who can reintubate the patient should complications arise after extubation.

Licensed Practical Nursing Practice

It is **not** within the scope of practice of a licensed practical nurse (LPN) to remove a laryngeal mask airway (LMA).

Registered Nursing Practice

It is within the scope of practice of a registered nurse (RN), who is educationally prepared and clinically competent to remove a laryngeal mask airway (LMA) after general anesthesia has been provided:

- 1) Written facility policies and procedures are in place that address removal of the LMA by an RN and the availability of appropriate provider assistance;
- 2) The RN has documented didactic and clinical training as well as demonstrated competency in the performance of LMA removal; and
- An appropriate provider is readily available to reinsert the LMA and/or reintubate the patient, if necessary.

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Procedural Sedation, Analgesia and Airway Management in Various Settings	LPN	RN	APRN
The administration of medications for safe procedural sedation and analgesia requires specific competencies as outlined in this advisory opinion statement.	Requires Qualified Healthcare Provider* Order, and Prescription. Must Be Performed Under the Direction of a Qualified Healthcare Provider	Requires Qualified Healthcare Provider* Order and Prescription Performed According to Written, Approved Organizational Policy and Procedures; Protocols are established for recording and reporting of data.	APRNs Certified in the Relevant Role and Population Foci
Administration of Intravenous Medications via Push or Bolus for Procedural Sedation or Analgesia		x	Х
Administration of Medications for the Purpose of Anesthesia			CRNA only
Local Anesthesia in a Dental Setting		x	х
Rapid Sequence Intubation (RSI)		Х	х
Palliative Sedation	х	х	X
Airway Management	X	x	x
Removal of Laryngeal Mask Airway (LMA)			
		Х	Х

Please Note: Nurse must be educationally prepared and clinically competent to perform any of the tasks/procedures listed above and follow the policies of their facility or organization.

^{*}Qualified Healthcare Providers include MD, PA, APRN, and/or Dentist KRS 314.011 (6) and (10)

Determining Scope of Practice

KRS 314.021(2) holds all nurses individually responsible and accountable for the individual's acts based upon the nurse's education and experience. Each nurse must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the nurse is both licensed and clinically competent to perform. In addition to this advisory opinion statement, the Kentucky Board of Nursing issued Advisory Opinion Statement #41 RN/LPN Scope of Practice Determination Guidelines which contains the KBN Decision-Making Model for Determining Scope of Practice for RNs/LPNs, and published the APRN Scope of Practice Decision Making Model providing guidance to nurses in determining whether a selected act is within an individual nurse's scope of practice now or in the future. A copy of the KBN Decision-Making Model for Determining Scope of Practice for RNs/LPNs may be downloaded from the Board's website https://kbn.ky.gov/General/Documents/aos41-rn-lpn-scope-of-practice-decision-making-model.pdf

Applicable Statutes from the Kentucky Nursing Laws

KRS 314.021(2) states: All individuals licensed or privileged under provisions of this chapter shall be responsible and accountable for making decisions that are based upon the individuals' educational preparation and experience in nursing and shall practice nursing with reasonable skill and safety.

KRS 314.011 Definitions for chapter (sections 6, 8 & 10).

- (6) "Registered nursing practice" means the performance of acts requiring substantial specialized knowledge, judgment, and nursing skill based upon the principles of psychological, biological, physical, and social sciences in the application of the nursing process in:
- (a) The care, counsel, and health teaching of the ill, injured, or infirm;
- (b) The maintenance of health or prevention of illness of others;
- (c) The administration of medication and treatment as prescribed by a physician, physician assistant, dentist, or advanced practice registered nurse and as further authorized or limited by the board, and which are consistent either with American Nurses' Association Scope and Standards of Practice or with standards of practice established by nationally accepted organizations of registered nurses. Components of medication administration include but are not limited to:
 - 1) Preparing and giving medications in the prescribed dosage, route, and frequency, including dispensing medications only as defined in subsection (17)(b) of this section;
- 2) Observing, recording, and reporting desired effects, untoward reactions, and side effects of drug therapy;
- 3) Intervening when emergency care is required as a result of drug therapy;
- 4) Recognizing accepted prescribing limits and reporting deviations to the prescribing individual;
- 5) Recognizing drug incompatibilities and reporting interactions or potential interactions to the prescribing individual; and
- 6) Instructing an individual regarding medications;
- (d) The supervision, teaching of, and delegation to other personnel in the performance of activities relating to nursing care; and
- (e) The performance of other nursing acts which are authorized or limited by the board, and which are consistent either with American Nurses' Association Standards of Practice or with Standards of Practice established by nationally accepted organizations of registered nurses;
- (8) "Advanced practice registered nursing" means the performance of additional acts by registered nurses who have gained advanced clinical knowledge and skills through an accredited education program that prepares the registered nurse for one (1) of the four (4) APRN roles; who are certified by the American Nurses' Association or other nationally established organizations or agencies recognized by the board to certify registered nurses for advanced practice registered nursing as a certified nurse practitioner, certified registered nurse anesthetist, certified nurse midwife, or clinical nurse specialist; and who certified

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in at least one (1) population focus. The additional acts shall, subject to approval of the board, include but not be limited to prescribing treatment, drugs, devices, and ordering diagnostic tests. Advanced practice registered nurses who engage in these additional acts shall be authorized to issue prescriptions for and dispense nonscheduled legend drugs as defined in KRS 217.905 and to issue prescriptions for but not to dispense Schedules II through V controlled substances as classified in KRS 218A.020, 218A.060, 218A.080, 218A.100, and 218A.120, under the conditions set forth in KRS 314.042 and regulations promulgated by the Kentucky Board of Nursing on or before August 15, 2006.

- (10)"Licensed practical nursing practice" means the performance of acts requiring knowledge and skill such as are taught or acquired in approved schools for practical nursing in:
- (a) The observing and caring for the ill, injured, or infirm under the direction of a registered nurse, advanced practice registered nurse, physician assistant, licensed physician, or dentist;
- (b) The giving of counsel and applying procedures to safeguard life and health, as defined and authorized by the board;
- (c) The administration of medication or treatment as authorized by a physician, physician assistant, dentist, or advanced practice registered nurse and as further authorized or limited by the board which is consistent with the National Federation of Licensed Practical Nurses or with Standards of Practice established by nationally accepted organizations of licensed practical nurses;
- (d) Teaching, supervising, and delegating except as limited by the board; and
- (e) The performance of other nursing acts which are authorized or limited by the board and which are consistent with the National Federation of [Licensed] Practical Nurses' Standards of Practice or with Standards of Practice established by nationally accepted organizations of licensed practical nurses;

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