

AOS #32 Sedation, Analgesia, Airway Management, and Chest Tubes
(Revised 10/2020)



KENTUCKY BOARD OF NURSING
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ADVISORY OPINION STATEMENT

**THE ROLE OF NURSES IN PROCEDURAL SEDATION, ANALGESIA, AIRWAY
MANAGEMENT, AND CHEST TUBE REMOVAL**

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:

PROCEDURAL SEDATION, ANALGESIA,
AIRWAY MANAGEMENT, AND CHEST
TUBE REMOVAL

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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 procedural sedation and analgesia and the removal of laryngeal mask airway (LMA) and chest tubes. After review of the statutes governing nursing practice, curricula of prelicensure and continuing education nursing programs, standards of nursing practice, and study of the issues and concerns regarding the administration of medications for procedural sedation and

analgesia and the removal of LMAs and chest tubes the Kentucky Board of Nursing issued this advisory opinion modeled in part from the 2008 Procedural Sedation Consensus Statement.¹

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.

Advisory Opinion

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 Commission².

Level	Definition
Minimal Sedation (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.
Moderate Sedation/ Procedural Sedation	A drug-induced depression of consciousness 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.
Deep Sedation	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.
Anesthesia	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.

¹ Procedural Consensus Statement (2008)
https://www.ena.org/SiteCollectionDocuments/Position%20Statements/Procedural_Sedation_Consensus_Statement.pdf

² American Society of Anesthesiologists Task Force on Sedation and Analgesia by Non-Anesthesiologists. (2002). Practice guidelines for sedation and analgesia by non-anesthesiologists. *Anesthesiology*, 96(4), 1004– 1017.

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 administration of medications for safe procedural sedation and analgesia requires specific competencies³ that include:

1. 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 a 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 occurs on a periodic basis according to institutional policy.

³ American Association of Nurse Anesthetists (2016). Non-Anesthesia Provider Procedural Sedation and Analgesia: Policy Considerations. American Association of periOperative Nurses (2016). Recommended Practices for Managing the Patient Receiving Moderate Sedation/Analgesia. Infusion Nurses Society (2016). Infusion Therapy Standards of Practice.

3. 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.
4. A valid authorized provider order is required to execute procedural sedation and analgesia.⁴ 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.
5. 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.

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."⁵

⁴An 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.

⁵*Rapid-Sequence Intubation Patient-Care Policy Statement, ACEP April 2018, retrieved from <http://www.acep.org>.*

The ACEP's policy statement on *Unscheduled Procedural Sedation: A Multidisciplinary Consensus Practice Guideline* states (2018) "...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."⁶

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.

Palliative Sedation

The Board recognizes the position of the Hospice and Palliative Nurses Association 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".⁷

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.

Removal of Laryngeal Mask Airway (LMA)

"The laryngeal mask airway (LMA) is a supraglottic airway device developed by British Anesthesiologist Dr. Archie Brain. It has been in use since 1988."⁸ The LMA is easier to place than an endotracheal tube and less likely to cause gastric distention and aspiration when positioned appropriately.⁹

The LMA is used primarily in the operating room. The LMA is used in the operating room for short procedures when endotracheal intubation is not necessary, when the patient cannot be intubated, to provide assistance in intubation, in cardiac arrest, or as a rescue device when intubation attempts have failed. The use of the LMA is enabled through sedation.⁷ Its use in emergency settings is increasing 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.¹⁰

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

⁶*Unscheduled Procedural Sedation: A Multidisciplinary Consensus Practice Guideline*, ACEP September 2018, retrieved from <http://www.acep.org>, has been endorsed by several organizations including the Emergency Nurses Association (ENA).

⁷Hospice and Palliative Nurses Association Position Statement "Palliative Sedation at End of Life" (2016). Retrieved from <http://advancingexpertcare.org/position-statements/>

⁸Bosson, N. et al. (2018). Laryngeal Mask Airway. Medscape. (Retrieved at www.Medscape.com 10/2019)

⁹ACLS. (2020). Free – Resources LMA. Retrieved from <https://acls.com/free-resources/knowledge-base/respiratory-arrest-airway-management/laryngeal-mask-airways-lma>

¹⁰Burns, S. (2001). PostAnesthesia Care Safely Caring for Patients with a Laryngeal Mask Airway. *Critical Care Nurse*. 21 (4) 72 – 74)

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. 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.¹¹

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
- 3) An appropriate provider is readily available to reinsert the LMA and/or reintubate the patient, if necessary.

Removal of Chest Tubes

In April of 1993, the KBN issued the following practice opinion on the removal of chest tubes from patients post coronary artery bypass graft surgery.

The removal of chest tubes from patients post coronary artery bypass graft is within the scope of registered nursing practice for the registered (nurse) who is educationally and experientially prepared to perform the act in a safe effective matter. The removal of chest tubes should be based upon a physician's order for the individual patient.

Further, it was the advisory opinion of the Board that the registered nurse who removes chest tubes should:

- 1) Possess substantial specialized knowledge and current clinical competency in cardiothoracic nursing practice and in the performance of the procedure.
- 2) Perform the procedure according to a well defined, appropriately established policy, procedure, and standardized protocol. The policy and procedure should describe the performance of the act; clinical parameters for removal of chest tubes; standing orders for nursing intervention in potential complications; and availability and access to medical care for complications requiring emergency intervention.
- 3) Perform the procedure only when a qualified physician is immediately available in the facility to intervene if complications occur.
- 4) Possess current clinical competency in the performance of the procedure.

Chest tubes are utilized to drain air, blood, or fluid from the intrapleural or mediastinal space of a patient who is experiencing disruption in the pleural space due to a condition such as Chylothorax, Empyema, Hemopneumothorax, Hemothorax, Pleural effusion, and Pneumothorax, and/or to prevent some postoperative complications.¹²

¹¹American Society of Perianesthesia Nursing, Frequently Asked Questions, Retrieved from https://www.aspan.org/Clinical-Practice/FAQs_11/2019.

¹²(Bauman et al., 2011) Chest-tube Care: The more you know the easier it gets. *American Nurse Today*. Retrieved from <https://www.americannursetoday>

The Board reaffirms and revises its previous opinion that:

- It is not within the scope of practice of a licensed practical nurse (LPN) to remove a chest tube.
- It is within the scope of practice of a registered nurse (RN), who is educationally prepared and clinically competent, to remove chest tubes with an order of a physician or other qualified provider, who is immediately available, and in accordance with a facility's policies and procedures.

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/practice/Documents/41%20KBN%20Decision-Making%20Model%20for%20Determining%20Scope%20of%20Practice%20for%20RNs-LPNs.pdf> and a copy of the APRN guidelines may be downloaded from the Board's website <http://kbn.ky.gov/practice/Documents/APRN%20Scope%20of%20Practice%20%20Decision%20Making%20Model.pdf>

Applicable Statutes from the Kentucky Nursing Laws¹³

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;

¹³A copy of the *Kentucky Nursing Laws* may be downloaded from the Kentucky Board of Nursing website at <http://kbn.ky.gov>.

- (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 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;