



**KENTUCKY BOARD OF NURSING**  
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**ADVISORY OPINION STATEMENT**

**ADMINISTRATION OF MEDICATIONS FOR  
PROCEDURAL SEDATION AND ANALGESIA BY NURSES**

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:**  
ADMINISTRATION OF MEDICATIONS FOR  
PROCEDURAL SEDATION AND ANALGESIA  
BY NURSES

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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. 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, the Kentucky Board of Nursing issued this advisory opinion modeled in part from the 2008 Procedural Sedation Consensus Statement jointly approved by the Air and Surface Transport Nurses Association, American Academy of Emergency Medicine, American Association of Critical Care Nurses, American College of Emergency Physicians, American Nurses Association, American Radiological Nurses Association, American Society for Pain

Management Nursing, Emergency Nurses Association, and the National Association of Children's Hospitals and Related Institutions.<sup>1</sup>

In addition, the Board reviewed current evidence including the following:

- Registered Nurses Engaged in the Administration of Sedation and Analgesia (AANA, 2005) <http://www.aana.com/resources2/professionalpractice/Pages/Registered-Nurses-Engaged-in-the-Administration-of-Sedation-and-Analgesia.aspx>
- Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists (ASA, 2002) <http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1944958>
- Standards on Granting Privileges For Administration of Moderate Sedation to Practitioners Who Are Not Anesthesia Professionals (ASA, 2011). <http://www.asahq.org/quality-and-practice-management/standards-and-guidelines>

### **Advisory Opinion**

### **Guiding Principles**

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.

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. **For this reason the Kentucky Board of Nursing expects that nurses will utilize critical thinking skills and reasonable clinical nursing judgment prior to each episode of medication administration to discern whether administering a medication is appropriate.**

Though optimal anesthesia care is best provided by qualified Certified Registered Nurse Anesthetists (CRNAs) or anesthesiologists, the Board recognizes that the demand in the practice setting necessitates provision of procedural sedation and analgesia by registered nurses (RNs) and Advanced Practice Registered Nurses (APRNs).

There are multiple medications utilized by healthcare professionals for procedural sedation and analgesia. Rather than focus on a particular medication, the Board advises that it is more appropriate to focus on the intent of administration. In addition, regardless of practice setting or expected outcome, the Board advises that key components of safe administration of medications for procedural sedation and analgesia by registered nurses should include the educational preparation and clinical competence of the nurse as well as the immediate presence of personnel who are competent in airway management, and advanced cardiac life support if complications arise.

While the registered nurse who administers sedation is acting on a specific medical order for a specific client, 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.

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<sup>1</sup> Procedural Consensus Statement (2008)  
[https://www.ena.org/SiteCollectionDocuments/Position%20Statements/Procedural\\_Sedation\\_Consensus\\_Statement.pdf](https://www.ena.org/SiteCollectionDocuments/Position%20Statements/Procedural_Sedation_Consensus_Statement.pdf)

Note: This position statement is **not** intended to apply to either:

(1) The practice of the Registered Nurse who holds licensure to practice as an Advanced Practice Registered Nurse in the role and population focus of Certified Registered Nurse Anesthetist (CRNA) functioning within his/her authorized scope of practice, or to

(2) The Registered Nurse practicing in an acute care setting, such as critical care, where the patient in question is intubated, receiving mechanical ventilatory support, and continuously monitored by the patient care RN. In this situation an RN may administer sedation and analgesia medications as ordered by a physician or APRN.

### **Use of Specific Pharmacologic Agents**

It is the responsibility of facilities, physicians and APRNs to determine specific pharmacologic agents to be used for procedural sedation and analgesia. The Board advises the RN or APRN to use caution, however, in deciding whether or not he or she has the competence to administer the specific pharmacologic agents ordered by the physician/APRN. With regard to this issue the Board recommends the RN 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 RN/APRN 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.

KRS 314.021(2) imposes individual responsibility 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.

### **A. Administration, Management and Monitoring by Registered Nurses**

It is within the scope of registered nursing practice to administer medications to and monitor the care of patients receiving procedural sedation and analgesia provided the following criteria are met:

1. Administration of procedural sedation and analgesia medications by RNs/APRNs is allowed by documented institutional policy, procedures, and protocols.
2. 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. Examples of appropriate equipment include but are not limited to: an emergency cart with a defibrillator; suction equipment; a portable positive pressure breathing device; oxygen delivery system; and appropriate airways.
3. The institution or practice setting has in place written policies and procedures/protocols, developed in accordance with accepted standards of practice, to guide the RN or APRN in the administration of medications and monitoring associated with procedural sedation and analgesia. Policies and procedures/protocols should include but are not limited to:

- Performance of a pre-sedation health assessment by the authorized provider ordering the sedation as well as a pre-sedation health assessment by a registered nurse and a documented focused nursing assessment by the nurse administering the sedation.
  - Guidelines for patient monitoring, drug administration and a plan for dealing with potential complications or emergency situation developed in accordance with currently accepted standard 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 education and training and continuing competence of the RN administering and/or monitoring patients receiving procedural sedation.
4. The registered nurse managing the care of patients receiving procedural sedation and analgesia is able to demonstrate educational preparation and current clinical competence as evidenced by the ability to<sup>2</sup>:
- a) Demonstrate the acquired knowledge of anatomy, physiology, pharmacology, cardiac arrhythmia recognition and complications related to procedural sedation and analgesia medications.
  - b) Assess total patient care requirements during procedural sedation and analgesia and recovery. Physiologic measurements should include, but not be limited to, respiratory rate, oxygen saturation, blood pressure, cardiac rate and rhythm, and patient's level of consciousness.
  - c) Demonstrate understanding of the principles of oxygen delivery, respiratory physiology, transport and uptake, and demonstrate the ability to use oxygen delivery devices.
  - d) Anticipate and recognize potential complications of procedural sedation and analgesia in relation to the type of medication being administered.
  - e) Utilize the requisite knowledge and skills to assess, diagnose and intervene in the event of complications or undesired outcomes and to institute nursing interventions in compliance with orders (including standing orders) or institutional protocols or guidelines.
  - f) Demonstrate skill in airway management resuscitation.
  - g) Demonstrate knowledge of the legal ramifications of administering procedural sedation and analgesia and/or monitoring patients receiving procedural sedation and analgesia, including the RN's responsibility in the event of an untoward reaction or life-threatening complication.
5. The institution or practice setting has in place an education/competency validation mechanism that includes a process for evaluating and documenting the RN's/APRN's 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.
6. The registered nurse 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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<sup>2</sup> American Association of Nurse Anesthetists "Registered Nurses Engaged in the Administration of Sedation and Analgesia" (2005)  
<http://www.aana.com/resources2/professionalpractice/Pages/Registered-Nurses-Engaged-in-the-Administration-of-Sedation-and-Analgesia.aspx>

7. The registered nurse may execute the procedural sedation and analgesia regimen with a valid authorized provider order.<sup>3</sup>
  - a) The APRN or registered nurse who is educationally prepared and currently clinically competent may administer an anesthetic agent for the purpose of procedural sedation and analgesia under the direct supervision and immediate presence at the bedside of the authorized provider who:
    - 1) Has institutional privileges/ credentials to administer anesthetic agents for procedural sedation
  - b) The registered nurse may administer other sedation medications, those that are not classified as anesthetic agents, taking into consideration:
    - 1) The patient's safety
    - 2) The effects of the medication, and
    - 3) Other clinical support factors
  
8. In executing a patient care regimen, the registered nurse should:
  - Monitor and document the sedated patient's physiologic parameters that include, but are not limited to:
    - Hemodynamic measurements and status
    - Respiratory parameters
    - Mobility
    - Level of consciousness and perception of pain
  - Communicate changes in patient status to the authorized provider performing the procedure and to other appropriate personnel.
  - Implement, as required, emergency measures to optimize the patient's respiratory and circulatory status until other qualified healthcare personnel assume care of the patient. This may include utilization of an appropriate airway device.
  - Maintain continuous intravenous access for circulatory support.

**Further, the Board issues the following advisory opinions:**

**Nitrous Oxide**

The administration of Nitrous Oxide per inhalation for sedation is within the scope of registered nursing practice for the registered nurse who is educationally prepared and currently clinically competent.

**Rapid Sequence Intubation**

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:

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<sup>3</sup> An 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.

- The administration of the medication is performed under the direct supervision/ immediate presence of the physician, or APRN designated nurse anesthetist, who is performing the intubation.
- The registered nurse is educationally prepared and currently clinically competent to perform the act in a safe, competent manner. Documentation of the nurse's educational preparation and demonstrated clinical competence is maintained.
- The 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.

### **Aero-Medical Transport Registered Nurses**

The Board recognizes the position of the Air and Surface Transport Association that:

“...in emergency and transport situations the immediate availability of interventions is critical to serving the needs of patients” and that “a unique characteristic of transport nursing practice is the application of the nursing process in dynamic environments to a diverse population of patients with a wide range of illnesses or injuries. Patient conditions and situations may require interventions that extend typical nursing practice and the transport nurse may be required to intervene when direct physician supervision is unavailable.”<sup>4</sup>

To that end, it is the opinion of the Board that it is within the scope of registered nursing practice for a registered nurse, qualified by education and current clinical competency, to administer sedation and paralytic medications per established protocols in aero-medical settings independent of on-site medical supervision.

### **Palliative Sedation**

The Board recognizes the position of the Hospice and Palliative Nurses Association that affirms:

“The use of palliative sedation to manage refractory and unendurable symptoms in imminently dying patients as one method of aggressive and comprehensive symptom management.”<sup>5</sup>

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.

### **Licensed Practical Nursing Practice**

The administration of pharmacologic agents via IV push or bolus 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. It is the opinion of the Board that administration of medications via IV push or bolus for procedural sedation is not within the scope of licensed practical nursing practice.

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<sup>4</sup> Air and Surface Transport Association Position Statements  
“Qualifications, Orientation, Competencies, and Continuing Education for Transport Nurses” (2012)  
<http://astna.org/?page=PositionPapers>

“Air & Surface Transport Nurses Association Rapid Sequence Intubation Consensus Statement” (2009)  
<http://astna.org/?page=PositionPapers>

<sup>5</sup> Hospice and Palliative Nurses Association Position Statement “Palliative Sedation at End of Life” (2003)  
<http://hpna.advancingexpertcare.org/education/position-statements/>

## Administration of General Anesthesia

The administration of medications given for the purpose of general anesthesia, and the monitoring of patient's responses to general anesthesia are within the scope of practice of the APRN, designated certified registered nurse anesthetist (CRNA). The administration of regional anesthesia and the monitoring of the patient responses to such medications are within the scope of practice of the APRN who is educationally prepared and currently clinically competent in the performance of the procedures. The intravenous administration of medications for the purpose of anesthesia is not within the scope of registered nursing practice or licensed practical nursing practice.

### **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 has published "Scope of Practice Determination Guidelines" which contains a decision tree chart 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 RN and LPN guidelines may be downloaded from the Board's website <http://kbn.ky.gov/NR/rdonlyres/74A5FF75-543D-4E12-8839-720B7623DA87/0/ScopeDeterminGuidelines.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 Laws*<sup>6</sup>**

KRS 314.021(2) states:

All individuals licensed 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(8) defines "advanced practice registered nursing practice" as:

... The performance of additional acts by registered nurses who have gained added knowledge and skills through an organized postbasic program of study and clinical experience and 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 nursing practice. 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.060, 218A.070, 218A.080, 218A.090, 218A.100, 218A.110, 218A.120, and 218A.130, under the conditions set forth in KRS 314.042 and regulations promulgated by the Kentucky Board of Nursing on or

<sup>6</sup> A copy of the *Kentucky Nursing Laws* may be downloaded from the Kentucky Board of Nursing website at <http://kbn.ky.gov>.

before August 15, 2006. (a)... ...The performance of these additional acts shall be consistent with the certifying organization or agencies' scopes and standards of practice recognized by the board by administrative regulation.

KRS 314.011(6) defines "registered nursing practice" as:

...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 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 medication 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.
- 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.

KRS 314.011(10) defines "licensed practical nursing practice" as:

...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, a 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 practitioner 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.
- 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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