



Doug Ducey
Governor

Joey Ridenour
Executive Director

Arizona State Board of Nursing

4747 N. 7th Street, Suite 200
Phoenix, AZ 85014-3655
Phone (602) 771-7800 Fax (602) 771-7888
Home Page: www.azbn.gov

An advisory opinion adopted by AZBN is an interpretation of what the law requires. While an advisory opinion is not law, it is more than a recommendation. In other words, an advisory opinion is an official opinion of AZBN regarding the practice of nursing as it relates to the functions of nursing. Facility policies may restrict practice further in their setting and/or require additional expectations related to competency, validation, training, and supervision to assure the safety of their patient population and or decrease risk.

**OPINION: LOW-DOSE CONTINUOUS IV
KETAMINE ADMINISTRATION FOR
TREATMENT OF INTRACTABLE OR
CHRONIC PAIN, OR DEPRESSION
APPROVED: 11/15
REVISED DATE:
ORIGINATING COMMITTEE:
SCOPE OF PRACTICE COMMITTEE**

Within the Scope of Practice of X RN LPN

ADVISORY OPINION

LOW-DOSE CONTINUOUS IV KETAMINE ADMINISTRATION FOR TREATMENT OF INTRACTABLE OR CHRONIC PAIN, OR DEPRESSION

STATEMENT OF SCOPE

It is NOT within the Scope of Practice of a Registered Nurse (non-CRNA) to administer IV Ketamine for the purposes of anesthesia.

It is NOT within the Scope of Practice of a Registered Nurse (non-CRNA) to administer an IV Ketamine via bolus dose.

It is within the Scope of Practice of a Registered Nurse (RN) to administer low-dose (sub-anesthetic) continuous IV Ketamine for the purposes of pain control (analgesia) and antidepressive effects when the following requirements are met:

I. GENERAL REQUIREMENTS

- a. The employer maintains a written policy and procedures
- b. A Licensed Independent Practitioner (LIP)
 - i. Evaluates the patient
 - ii. Places an order for Low-dose IV Ketamine
 - iii. Is readily available in facility from the time the medication is initiated until completion of the infusion
- c. A validated sedation scale is used (e.g. Richmond Agitation Sedation Scale, Sedation Agitation Scale) to monitor level of sedation
- d. Low dose IV Ketamine infusion is prepared by pharmacy.
- e. Low-Dose IV ketamine is infused via an IV infusion pump preferably with smart pump technology
- f. Ketamine is infused via a dedicated IV line
- g. RNs may adjust the rate of infusion per a patient specific order.
 - i. Standing orders or protocols are not used.
- h. ACLS/PALS provide readily available in facility.

- i. The dose ordered is within a sub-anesthetic dose range as defined by the organization's policy
- j. RNs have the right and obligation to refuse to administer Ketamine in amounts that may induce moderate or deep sedation or anesthesia.
- k. Patient monitoring includes electrocardiogram, oxygenation, blood pressure, respiratory rate, temperature (when appropriate) and level of sedation is maintained during and following the infusion.

II. COURSE OF INSTRUCTION

1. The RN administering low-dose continuous IV Ketamine for chronic pain or depression must complete an annual instructional program including supervised clinical practice. The instructional program includes but is not limited to:
 - i. Anatomy and physiology, oxygen delivery, airway management and devices, frequency of vital sign, necessary emergency equipment
 - ii. Use of specialized monitoring equipment, sedation scale, pain scale, and smart pump functionality
 - iii. Ketamine
 - Drug classification (general anesthetic, controlled substance), preparation, onset, duration, desired effect, sub-anesthetic dose range, indications, contraindications, medication interactions, side effects, adverse reactions.
 - iv. Recognition of potential clinical complications and appropriate nursing interventions
 - v. Levels of sedation (minimal, moderate, deep, and anesthesia) with an emphasis on minimal sedation.
 - vi. Nursing care responsibilities including but not limited to assessment, monitoring and documentation.
2. Completion of education and competency is available on file with the employer
3. Current certification in BLS is on file with the employer

III. RATIONALE

Clinical studies have shown that Low-dose continuous IV Ketamine may provide analgesia among opioid tolerant patients experiencing refractory post-operative pain, neuropathic pain, and chronic pain. In addition clinical evidence exist that administration of low-dose IV Ketamine have resulted in improvement in mood and suicidal thinking. A Registered Nurse may acquire the knowledge and skill required to safely administer Ketamine (an anesthetic agent) at sub-anesthetic doses.

This advisory opinion CANNOT be construed as approval for the RN to administer an anesthetic as described in A.R.S. § 32-1634.04.

IV. REFERENCES

Arizona State Board of Nursing Advisory Opinion

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https://www.azbn.gov/Documents/advisory_opinion/AO%20PALLIATIVE%20SEDATION%20AT%20END%20OF%20LIFE.pdf

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Wyoming State Board of Nursing. IV Administration of ketamine for Intractable Pain for Adults. October 2013. <https://nursing-online.state.wy.us/Resources/ketamine%20advisory%20opinion.pdf>