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**OPINION: ADMINISTRATION AND
MONITORING OF SUBANESTHETIC IV
KETAMINE
APPROVED DATE: 11/2018
ORIGINATING COMMITTEE: ADVANCED
PRACTICE COMMITTEE**

Within the Scope of Practice of ___RN___LPN XAPRN

ADVISORY OPINION ADMINISTRATION AND MONITORING OF SUBANESTHETIC IV KETAMINE

STATEMENT OF SCOPE

The management of intravenous (IV) Ketamine in sub-anesthetic doses is within the Scope of Practice for an advanced practice registered nurse (APRN), based upon knowledge derived from the APRN's advanced education, evidence-based research, and/or established practice standards within an APRN's area of expertise, and in accordance with state rule R4-19-508F under A.R.S. §§ 32-1601(19) and 32-1606(B)(12). The APRN may perform additional acts that the APRN is qualified to perform and that are generally recognized as being within the role and population focus of certification.

It is not within the Advanced Practice Registered Nurse's scope of practice, who is not a Certified Registered Nurse Anesthetist, to manage Ketamine for the purpose of anesthesia.

I. GENERAL REQUIREMENTS:

- A. The APRN must be knowledgeable in the pharmacodynamic and pharmacokinetic effects of Ketamine. It is imperative that the APRN understand the expected effects of sub-anesthetic IV Ketamine, anticipate risks, recognize adverse effects (such as cardiac & respiratory emergencies) and possess the skill and equipment to respond to such adverse effects.
- B. The APRN must have received and documented didactic and supervised clinical instruction consistent with Nurse Practice Act Rule R4-19-508 (C). Patient selection for treatment with IV Ketamine must be within the APRN's population focus. The APRN may only supervise IV Ketamine infusion for those patients who are in the APRN's population focus.
- C. Employer/facility will maintain written policies and/or protocols for the use of sub-anesthetic IV Ketamine. Employer/facility will have emergency equipment/medication available to stabilize the patient should an adverse event occur.
- D. The APRN will be Advanced Cardiac Life Support (ACLS) certified and (if applicable), Pediatric Advanced Cardiac Life Support (PALS) certified.
- E. The APRN must be knowledgeable in the differences related to moderate versus deep sedation, for additional guidance, refer to Arizona State Board of Nursing's Advisory Opinion titled 'Moderate Sedation/Analgesia'.
- F. Sub-anesthetic IV Ketamine will be administered via an infusion pump.

- G. Patient monitoring & documentation includes electrocardiogram, oxygenation, blood pressure, respiratory rate, temperature (when appropriate) and level of sedation during and following the infusion.
- H. It is recommended that pre-treatment and post-treatment scoring is documented via validated scale (as per provider/facility discretion) to assess for not only treatment efficacy, but also stability of the patient before discharging the patient from the facility and/or continuing future Ketamine infusion treatments.
- I. The APRN, as the medical provider overseeing the use of sub-anesthetic Ketamine must remain on-site at all times and be immediately available throughout the duration of the infusion.
- J. The APRN can delegate care of the patient (with no evidence of untoward side effects) to Registered Nurses (RNs) who have demonstrated competence in caring for patients receiving sub-anesthetic Ketamine infusions.

II. COURSE OF INSTRUCTION: Indications for and contraindications to the use of sub-anesthetic Ketamine, including but not limited to:

- A. The four levels of sedation: minimal sedation, moderate sedation/analgesia, deep sedation/analgesia, and anesthesia.
- B. Anatomy, physiology, pharmacology, cardiac arrhythmia recognition, and complications related to sedation and analgesia medications.
- C. Patient care requirements before and during the administration of moderate sedation/analgesia, including the recovery phase.
- D. Principles of oxygen delivery, transport and uptake, and respiratory physiology, as well as the use of oxygen delivery devices and continuous capnography monitoring, if available.
- E. Complications of moderate sedation/analgesia for each type of agent being administered, and administration of reversal agents.
- F. Intervention in the event of complications and institution of appropriate interventions in compliance with orders or facility protocols.
- G. Sedation monitoring using a valid sedation scale (e.g. Richmond Agitation Sedation Scale).
- H. Certification in advanced cardiopulmonary resuscitation specific to the population served i.e. ACLS.
- I. Assessment of recovery progress prior to discharge from recovery area.
- J. Moderate sedation/analgesia education to patients and families.

III. RATIONALE: Subanesthetic IV Ketamine has become a treatment modality for those suffering from (but not limited to): Post Traumatic Stress Disorder (PTSD), depression and chronic pain conditions. Advanced practice registered nurses (APRNs) are utilized as the licensed medical provider within infusion centers or ‘Ketamine Clinics’ as well as hospital settings during the use of subanesthetic IV Ketamine. The purpose of this Advisory Opinion is to provide guidance for the advanced practice registered nurse (APRNs) (non-CRNAs) when making the decision to utilize subanesthetic IV Ketamine as a part of the patient’s treatment plan.

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