Advisory on Nitrous Oxide Use in the Pediatric population

An advisory opinion adopted by the Alaska Board of Nursing 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 the Alaska Board of Nursing regarding the practice of nursing as it relates to the health and safety of the Alaska healthcare consumer. Facility policies may restrict practice further in their setting and/or require additional expectations related to competency, validation, training and supervision to assure safety of their patient population and/or decrease risk.

The Alaska Board of Nursing publishes Advisory Opinions regarding safe nursing practice, in accordance with AS 08.68.100(a)(9).

RATIONALE

Minimal sedation is a drug-induced state during which patients respond normally to verbal commands. It is within the Scope of Practice of a Registered Nurse (RN) to administer nitrous oxide as a single agent for the purpose of minimal sedation (analgesia or anoxiolytic use) in children over the age of one.

GENERAL REQUIREMENTS

- 1. Use of failsafe equipment with a scavenger system must be used.
- 2. The Registered Nurse has successfully completed 6 hours training that includes didactic, skills, and competency demonstration. See course requirements below.
- 3. The nitrous percent does not exceed 70% and pulse oximetry is continuously monitored.
- 4. Once additional medications are used in concert with Nitrous Oxide the RN must also meet the additional requirements of sedation under the Board of Nursing Conscious Sedation Advisory Opinion.
- 5. A Licensed Independent Provider dedicated specifically to sedation must be at the bedside if any additional medications that may cause sedation, relaxation, or paralytics are used. See advisory on RN administered conscious sedation.
- 6. Patient is assessed by Licensed Independent Provider prior to the administration of nitrous oxide.
- 7. The RN is responsible for obtaining verbal consent. The Licensed Independent Provider is responsible for providing written orders or an order set. The specific dosage parameters are established by the Licensed Independent Provider in writing prior to RN administration of nitrous oxide. The RN may titrate the nitrous oxide with the parameters determined by written orders.
- 8. There are facility policies and procedure approved in place.
- 9. Dosimetry is available in accordance with the facilities policies and procedures.
- 10. Signage for nitrous oxide use must be in use during administration.
- 11. The RN must hold current BLS and PALS certification on file at the facility.

12. An RN is dedicated for nitrous administration and must remain with the patient. She may not engage in other tasks that could compromise continuous monitoring of the patient airway and/or level of consciousness.

The RN has the right and responsibility to refuse to administer any medication that may induce procedural sedation when in the professional judgment of the RN, the medication or combination of medications, the dosages prescribed, or frequency of administration may produce a state of moderate or deep sedation or place the patient at risk for complications

Due to occupational exposure risk, RNs may refuse participation.

COURSE OF INSTRUCTION

Required: Six hours of didactic instruction, a written exam, and a minimum of three observed cases. A plan for continued competency must be included in the training.

Course content must include:

Age specific Anatomy and physiology

Age specific pre-sedation assessment

Pharmacologic properties of nitrous oxide/ oxygen

Indications / contraindications of nitrous oxide

Techniques of administration, titration and termination of nitrous oxide use

Level of consciousness assessment and physiological response to the drug

Airway management

Emergency situation management and appropriate interventions

Abuse potential

Occupational exposure to nitrous

Legal implications, responsibility, documentation

Nursing role

On November 2, 2017, with a motion made by Wendy Thon APRN and seconded by Julie Gillette and carried with 5 ayes it was

Resolved that the Board of Nursing for the State of Alaska accept the pediatric nitrous oxide advisory opinion written as amended.

Sharyl Toccano PhD, MSN, RN-CPN Chairperson