



## Arizona State Board of Nursing

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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: NITROUS OXIDE ADMINISTRATION**  
**APPROVED DATE: 1/08**  
**REVISED DATE: 03/11, 01/15, 01/2020**  
**ORIGINATING COMMITTEE:**  
**SCOPE OF PRACTICE COMMITTEE**

Within the Scope of Practice of  X  RN   LPN

### ADVISORY OPINION NITROUS OXIDE ADMINISTRATION

It is within the Scope of Practice of a Registered Nurse (RN) to administer nitrous oxide as a single sedative agent for anxiolysis/analgesia, not to be administered concurrently with any other sedative, anesthetic agent or narcotic analgesic. It is also within the Scope of Practice of an RN to monitor maternal self-administration of nitrous oxide during labor for purposes of anxiolysis/analgesia.

#### I. GENERAL REQUIREMENTS

- A. A licensed independent practitioner (LIP) is to be readily available in the facility or medical complex.
- B. The patient will be assessed for appropriateness by an LIP prior to the administration of nitrous oxide.
- C. An LIP must be present at the bedside during administration of nitrous oxide to a child less than 12 months of age.
- D. A written policy and procedure is maintained by the employer/facility.
- E. Policies, procedures, and protocols (including order sets) have been approved by the facility prior to implementation.
- F. Policies, procedures, protocols, and order sets will include use of nitrous oxide for
  - minimal to moderate conscious sedation
  - self-administration in labor and delivery
- G. Policy and procedure will specify:
  1. The required emergency equipment and medications which must be immediately available to the patient receiving or self-administering nitrous oxide. (This includes all emergency equipment and medication required to regain and/or maintain the patient's cardiac and respiratory state).
  2. The role of the RN during nitrous oxide administration, monitoring parameters and qualified prescriber availability.
  3. The role of the RN during nitrous oxide self-administration, monitoring parameters and qualified prescriber availability.
  4. Continuous pulse oximetry will be monitored during nitrous oxide administration.
- H. Instructional and ongoing program to include nitrous oxide administration/airway management.

- I. Only RNs who have completed an instructional program and have documented initial and ongoing clinical competency on file with the employer may administer nitrous oxide. See below Course of Instruction for content requirements.
- J. Current certification of basic life support specific to the patient on file with the employer.
- K. In the acute care setting, certification of advanced life support specific to the patient population served is on file with the employer.
- L. The RN responsible for administering nitrous oxide may not leave the patient unattended or engage in other tasks that could compromise continuous monitoring of patient.
- M. The LIP will establish the specific dosage parameters prior to the RN administering nitrous oxide.
- N. The concurrent administration of any other sedative, anesthetic or narcotic analgesic with nitrous oxide would fall outside the specifications of this advisory opinion. If/when nitrous oxide is to be administered following an opioid analgesic, the patient must be monitored using a validated sedation scale.
- O. The RN may administer and discontinue the nitrous oxide as ordered by the LIP. The RN may discontinue nitrous oxide in the event there is evidence of maternal/fetal compromise during maternal self-administration.

**II. COURSE OF INSTRUCTION** includes but is not limited to:

- A. Anatomy and physiology specific to age, developmental levels and exclusion criteria.
- B. Pre-sedation assessment specific to age, developmental levels and exclusion criteria.
- C. Pharmacologic properties of nitrous oxide and oxygen.
- D. Indications and Contraindications of nitrous oxide administration.
- E. Techniques of administration, including equipment usage, titration and 100% oxygen administration following termination of nitrous oxide use.
- F. Level of consciousness assessment and physiological response to the drug.
- G. Airway management.
- H. Complication management.
- I. Emergency situation management and appropriate interventions.
- J. Abuse potential.
- K. Occupational exposure to nitrous oxide.
- L. Legal implications, responsibility, documentation.
- M. Nursing role.
- N. Patient self-administration for labor and delivery
  - 1. Nitrous oxide/oxygen concentrations for anxiolytic/analgesic purposes
  - 2. Risks and benefits
  - 3. Patient and family education and support

**III. RATIONALE**

Nitrous oxide administration for anxiolysis and analgesia has an excellent safety record. The intent of administering nitrous oxide is to achieve minimal sedation in the outpatient setting, anxiolytic/analgesia with maternal self-administration in the labor and delivery setting and mild to moderate conscious sedation in the acute care setting. This procedure is performed by RNs with additional education, skills, and demonstrated competency. This advisory opinion CAN NOT be construed as approval for the RN to administer an anesthetic as in A.R.S. §32-1634.03 & A.R.S. §32-1634.04

#### IV. REFERENCES

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