



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: ADMINISTRATION
OF MEDICATION VIA
INTRAPLEURAL ROUTE
APPROVED: 7/2018;
REVISED DATE: 8/2022 03/2024
SCOPE OF PRACTICE COMMITTEE**

Within the Scope of Practice of ___ LPN ___ RN

Advisory Opinion: Administration of Medication Via Intrapleural Route

STATEMENT OF SCOPE

It is within the scope of practice of a registered nurse (RN) to administer medication through either a pigtail catheter or chest tube for treatment of empyema, pleural effusions, flush/irrigation, or for analgesic purposes. Sclerotic agents such as talc or doxycycline, or chemotherapy are NOT covered by this Advisory Opinion"

I. GENERAL REQUIREMENTS

- A. Written policies/procedures are maintained by the agency/ employer.
- B. Only RNs who have satisfactorily completed an agency's instructional program, and have had supervised clinical practice are allowed to perform intrapleural administration of medication.
- C. Documentation of satisfactory completion of the instructional program and supervised practice is on file with the employer.

II. COURSE OF INSTRUCTION

- A. Prior to performing this procedure, the RN must complete education, which includes but is not limited to:
 - i. Anatomy and physiology of the lungs, pleural space, and the area involving the chest tube device
 - ii. Indications and contraindications for procedure
 - iii. Chest tube devices, including placement, monitoring, complications, and appropriate nursing interventions
 - iv. Techniques and use of equipment used during the procedure, including safe administration practices to avoid inadvertent administration

- v. Pharmacological indications, contraindications, complications of the medications being administered, and appropriate nursing interventions
 - vi. Nursing care responsibilities including patient monitoring, assessment of vital signs, and focused assessment of respiratory status
 - vii. Potential adverse reactions and complications, including emergencies such as catheter dislodgement, air embolus, bleeding, or other serious complication
 - viii. Consent
 - ix. Patient education
 - x. Documentation
- B. Upon completion of education, and prior to independent practice, the RN must have documented supervised clinical practice

III. RATIONALE

Minimally invasive treatments for pleural effusion/ empyema include intrapleural instillation of medications (i.e. tPA and DNase), through a tube (e.g. pigtail or chest tube). This therapy includes a series of steps including instillation of medication, followed by dwell time and drainage. Evacuation of contents is a successful outcome of this therapy which is evaluated by the ordering clinician.

IV. REFERENCES

- Arizona State Board of Nursing. (2019). Advisory opinion: Analgesia by catheter techniques: Role of the RN (epidural, intrathecal, intrapleural, perineural). Retrieved from <http://www.azbn.gov/media/1009/ao-analgesia-by-catheter-techniques-epidural-intrathecal-interpleural-perineural-9-16.pdf>
- Arkansas State Board of Nursing. (2011). Position statement: Administration of analgesia by specialized catheter (epidural, intrathecal, intrapleural). Retrieved from <http://www.arsbn.org/Websites/arsbn/images/PositionStatement98.1.1.2014.pdf>
- Gilbert, C. R., Wilshire, C. L., Chang, S., & Gorden, J. A. (2021). The use of intrapleural thrombolytic or fibrinolytic therapy, or both, via indwelling tunneled pleural catheters with or without concurrent anticoagulation use. *CHEST*, 160(2), 776-783. doi: <https://doi.org/10.1016/j.chest.2021.03.023>
- Gilbert, C., & Gorden, J. (2017). Use of intrapleural tissue plasminogen activator and deoxyribonuclease in pleural space infections: An update on alternative regimens. *Current Opinion in Pulmonary Medicine*, 23(4), 371-375. <https://doi.org/10.1097/MCP.0000000000000387>

Kansas State Board of Nursing. (2003). Position statement: Monitoring analgesia by catheter techniques by the registered professional nurse. Retrieved from: https://ksbn.kansas.gov/wp-content/uploads/Resources/Position_Statements/Position-Statement-cath-tec.pdf

Kentucky Board of Nursing. (2014). *Advisory opinion: Roles of nurses in the administration of medication via various routes*. Retrieved from: <https://kbn.ky.gov/KBN%20Documents/aos16-meds-via-routes.pdf>

Livingston, M. H., Mahant, S., & Connolly, B. (2020). Effectiveness of intrapleural tissue plasminogen activator and dornase alfa vs tissue plasminogen activator alone in children with pleural empyema: A randomized controlled trial. *JAMA Pediatrics*, 174(4), 332-340. doi: <https://doi.org/10.1001/jamapediatrics.2019.5863>

Majid, A., Kheir, F., Folch, A., Fernandez-Bussy, S., Chatterji, S., ... & Folch, E. (2016). Concurrent intrapleural instillation of tissue plasminogen activator and DNase for pleural infection. *Annals of the American Thoracic Society*, 13(9), 1512-1518. <https://doi.org/10.1097/LBR.0000000000000461>

New Hampshire Board of Nursing. (2015). RN scope of practice advisories. Retrieved from <https://www.oplc.nh.gov/sites/g/files/ehbemt441/files/inline-documents/sonh/rn-scope.pdf>