

Section: Division of Nursing
Approval: _____

PROCEDURE

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HACKETTSTOWN REGIONAL MEDICAL CENTER

Originator: M. Kohmescher, RN, CGRN
J. Sigall, RN
Revised by: B. Springer, RN
Reviewed by: S. Koeppen, RN, CGRN

Minor Procedure
(Scope)

TITLE: LUNG BIOPSY - ENDOBRONCHIAL & TRANSBRONCHIAL

PURPOSE: To outline the steps for performing/assisting with lung biopsies

SUPPORTIVE DATA: Indications:
1. Suspicion of abnormal tissue.
2. Confirmation of normal tissue.
3. Diagnosis of pulmonary infections.

EQUIPMENT LIST:
1. Refer to "Flexible Bronchoscopy" procedure.
2. Refer to "Safety" protocol in structure portion of Minor Procedure Manual.
3. Sterile biopsy forceps for bronchoscopy. Wang histology/cytology needles if requested by physician and 20 cc syringe.
4. Gauze sponges
5. Specimen containers with formalin
6. Nonbacteriostatic saline
7. Insulin syringe with needle for removing specimen from biopsy forceps
8. Appropriate labels and lab slips

CONTENT:

PROCEDURE STEPS:

KEY POINTS:

- A. Pre-Procedure Assessment/Care
1. Refer to "Flexible Bronchoscopy" procedure.
 2. Notify physician if patient is currently on anti-coagulation therapy or has taken nonsteroidal anti-inflammatory or aspirin-containing products within one week prior to procedure.
 3. Determine pregnancy status of female patient and document.
 4. Reassure patient that biopsy procedure is painless.
 5. Reassure patient that biopsies are performed for reasons other than for suspicion of cancer.
 6. Inform patient what may be heard during the process of performing biopsies, i.e., "open" and "close."

7. Document patient teaching and comprehension.

B. Responsibilities
During Procedure:

Endobronchial Biopsy

1. Assist with insertion of bronchoscope.
2. Assist physician in obtaining biopsies (may be responsibility of nurse or respiratory therapist).
3. Insert and withdraw forceps from the channel in the closed position.
4. While withdrawing the forceps, wipe the shaft with a gauze sponge to remove secretions.
5. Place specimen in container with formalin if specimen is being viewed for histology.
6. Place any specimens for culture in nonbacteriostatic saline.
7. Label the container with pertinent patient information and site of the biopsy.
8. Confirm with the physician when a separate container should be used.
9. Refer to "Flexible Bronchoscopy" procedure.
10. Document that biopsy specimens were obtained.

Potential Complications:

1. Bleeding and/or hemorrhage
2. Pneumothorax
3. Impaired oxygenation
4. Introduction of oral pathogens into lower bronchial tract
5. Fever and/or bacteremia

Transbronchial Biopsy

1. Follow the procedure as described above.
2. Use fluoroscopy when obtaining transbronchial tissue. Efforts must be coordinated between the physician and the nurse or respiratory therapist. The forceps are advanced through bronchoscope beyond the tip into the peripheral area to be biopsied. After position is attained under fluoroscopy, the forceps are withdrawn slightly, opened and then advanced until resistance is felt. The biopsy should be obtained during the

exhalation phase to reduce the risk of pneumothorax.

3. If bleeding occurs during biopsy, assessment of the amount is determined by the physician. Saline in 5-10cc increments may be injected through the bronchoscope to assess the amount of bleeding. Epinephrine 1:1,000 diluted with normal saline to either 1:10,000 or 1:20,000 in increments of 2cc each may be injected through the bronchoscope to control bleeding. Subsequent saline wash is injected through the bronchoscope to assess the amount and/or control bleeding.
4. If bleeding remains uncontrolled, emergent endotracheal intubation will need to be performed for control of airway with adequate oxygenation. Emergency measures are then performed in airway maintenance. Position patient on side where bleeding has occurred with unaffected lung up to prevent possible blood flow from entering good lung.
5. Refer to "Flexible Bronchoscopy" procedure.
6. Document any abnormal amount of bleeding and interventions used.

C. Post-Procedure
Assessment/Care

1. Refer to "Flexible Bronchoscopy" procedure.
2. Reassure patient that it is common to have some bleeding after a biopsy if performed; however, coughing up more than two tablespoons of blood post-procedure requires that the patient contact the physician.
3. Inform the patient when and how the results of the biopsies can be obtained.
4. Instruct the patient to avoid the ingestion of aspirin or aspirin-containing products for a period of time as per physician recommendation and document.