



# Collection and Handling of Thoracic Small Biopsy and Cytology Specimens for Ancillary Studies

## Statements and Strengths of Recommendations

### SUMMARY OF RECOMMENDATIONS

Guideline Statement	Strength of Recommendation
1. Endobronchial ultrasound guided transbronchial needle aspiration (EBUS TBNA) may be used, if available, for initial evaluation (diagnosis, staging, identification of recurrence/metastasis) of mediastinal and hilar lymph nodes, as well as centrally located parenchymal lesions visible with endobronchial ultrasound.	Strong Recommendation
2. When performing EBUS TBNA, 19-, 21-, or 22-gauge needles may be used.	Recommendation
3. When performing EBUS TBNA, rapid on-site evaluation (ROSE) should be utilized, if available.	Recommendation
4. To achieve optimal diagnostic yield, when performing EBUS TBNA without ROSE, the bronchoscopist should perform at minimum three and up to five passes, if technically and clinically feasible. When performing with ROSE, clinical judgment should be used to assess the number of passes needed. Additional passes may be required for ancillary studies.	Recommendation
5. When performing transthoracic needle procedures, ROSE should be used for adequacy assessment, if available and clinically feasible. If performing core needle biopsy (CNB), without concurrent fine needle aspiration (FNA), touch preparations may be used for adequacy assessment, if available.	Strong Recommendation for the use of ROSE for adequacy assessment; Recommendation for the use of touch preparations without concurrent FNA
6. When performing transthoracic needle procedures, needle size should be determined by the operator and technique. For transthoracic FNAs, needles as small as 25 gauge may be used. For CNBs, needles as small as 20 gauge may be used.	Recommendation
7. When performing transthoracic FNA without CNB, the proceduralist should obtain multiple passes, if technically and clinically feasible, and should attempt to collect sufficient material for a tissue block (ie, cell block, tissue clot).	Recommendation
8. To achieve optimal diagnostic yield when performing transthoracic CNBs, the proceduralist should attempt to obtain a minimum of three core samples, if technically and clinically feasible. Additional samples may be required for ancillary studies.	Recommendation

9. If performing bronchoscopy for the investigation of peripheral pulmonary lesions that are difficult to reach with conventional bronchoscopy, image-guidance adjuncts may be used, if local expertise and equipment are available.	Recommendation
10. When performing transbronchial needle aspirates, ROSE should be used for adequacy assessment, if available. If performing transbronchial forceps biopsies without concurrent transbronchial needle aspirates, touch preparations may be used for adequacy assessment, if available.	Recommendation for the use of ROSE for adequacy assessment; Expert Consensus Opinion for the use of touch preparations
11. When collecting pleural fluid for a suspected diagnosis of malignancy, the proceduralist should send as much fluid volume as reasonably attainable for cytologic evaluation and ancillary studies.	Expert Consensus Opinion
12. Cytology specimens (smears, cell blocks, liquid-based cytology), may be used for ancillary studies if supported by adequate validation studies.	Strong Recommendation
13. CNB specimens collected for ancillary studies should be fixed in 10% neutral buffered formalin.	Recommendation
14. When performing bronchoscopy for the investigation of tuberculosis, endobronchial ultrasonography may be used to increase the diagnostic yield of bronchoalveolar lavage and transbronchial biopsy.	Recommendation
15. When performing EBUS TBNA for the evaluation of intrathoracic granulomatous lymphadenopathy with the suspicion of tuberculosis, specimens should be collected for cytology, microbiology (mycobacterial smear and culture), and <i>Mycobacterium tuberculosis</i> -polymerase chain reaction (TB-PCR) evaluation, if available.	Recommendation
16. When collecting pleural fluid for diagnosis of extrapulmonary tuberculosis, specimens should be submitted for microbiology culture studies for mycobacteria using liquid media protocol.	Recommendation

#### Reference

Roy-Chowdhuri S, Dacic S, Ghofrani M, et al. Collection and handling of thoracic small biopsy and cytology specimens for ancillary studies: guideline from the College of American Pathologists in Collaboration with the American College of Chest Physicians, Association for Molecular Pathology, American Society for Cytopathology, American Thoracic Society, Pulmonary Pathology Society, Papanicolaou Society of Cytopathology, Society of Interventional Radiology, and Society for Thoracic Radiology. *Arch Pathol Lab Med*. In Press. DOI: [10.5858/arpa.2020-0119-CP](https://doi.org/10.5858/arpa.2020-0119-CP)

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