

PULMONARY PATHOLOGY GROSSING GUIDELINES

Specimen Type: PLEURAL BIOPSY

NOTE: An open lung biopsy, other than performed for a neoplastic mass, is often a medical urgency, done in very ill or dying patients, when the clinicians need a tissue diagnosis to guide potential life-saving therapy for the patient. It is our responsibility to assure that the specimen is studied properly. This includes proper microbiologic studies, touch-preps, E.M., freezing, use of special fixatives, cytogenetics, etc. You should be aware of the clinical differential diagnosis so you can determine which studies are indicated.

If neoplasm is clearly present the specimen need not be handled as a rush. You may place 1 mm cube in E.M. fixative and do a touch prep. If lymphoma is clinically suspected, please request lymphoma work up from the hemepath team. If the biopsy is performed to assess for pulmonary hemorrhage or collagen vascular disease, place a small piece in Zeus fixative and place in the appropriate container in the fridge (this is required for immunofluorescence studies).

Cassette Submission: All tissue submitted – ALL OF THESE BIOPSIES ARE **RUSH SPECIMENS**

- **Lung-1 (BROWN or GREEN):** biopsies for neoplasm (4 slides; 4 sections per slide, 2 microns)
 - o 1,4 H&E
 - o 2,3 unstained (IHC)
- **Lung-2 (BROWN or GREEN):** biopsies for infectious disease (4 slides; 4 sections per slide, 2 microns)
 - o 1,4 H&E
 - o 2 GMS
 - o 3 AFB (no gram stain)
- **Lung-3 (BROWN or GREEN):** biopsies for transplant and other immunocompromised hosts (8 slides; 4 sections per slide, 2 microns)
 - o 1,8 H&E
 - o 2 AFB
 - o 3 Trichrome
 - o 4 Methenamine silver
 - o 5 CMV
 - o 6 Negative control for CMV
 - o 7 unstained
- **Lung-4 (BROWN or GREEN):** biopsies with no information (4 slides; 4 sections per slide, 2 microns)
 - o 1,4 H&E
 - o 2, 3 unstained (IHC)
- **Lung-5 (BROWN or GREEN):** open biopsy (6 slides from one block only; 1 H&E of other blocks)
 - o 1 H&E
 - o 2 AFB
 - o 3 GMS
 - o 4,5,6 unstained

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Procedure:

1. Measure to the mm.
2. Describe pleural surfaces, noting color and granularity. Describe state of inflation and consistency.
3. If possible, perfuse the specimen with 10% formaldehyde and section the specimen after several hours of fixation. Small wedge biopsies of lung can be shaken vigorously in formalin to expand alveoli.
4. Describe parenchyma, noting color, size, consistency, content of airways and focal lesions.
5. If received very late in the day, such that adequate fixation is a concern, one cassette of the most abnormal tissue should be processed, and the remainder may be held overnight.
6. If fixation is not an issue, the specimen should be entirely embedded and submitted the day received.
7. In any type of case, special stains need not be done on all blocks, only the one that is most abnormal grossly.
 - a. Special stains for infectious diseases should be ordered
8. Submit entire specimen if small or representative sections if large.

Gross Template:

Labeled with the patient's name (**), medical record number (**), designated "****", and received [*fresh/in formalin*] is a ** gram, ** x ** x ** cm lung biopsy. There is a ** cm in length staple line present at the resection margin. The pleural surface is [*intact/ruptured/smooth/glistening/roughened*]. There is a [*minimal, moderate, extensive*] amount of anthracotic pigmentation. Sectioning reveals [*describe all lesions including size, color, involvement of pleura, and distance from margin*]. The remaining lung parenchyma is [*emphysematous/spongiform/fibrotic/unremarkable*]. Representative sections are submitted [*number of cassettes*].

Ink Key:

Blue-stapled resection margin

Green-pleura overlying mass, if applicable