Respiratory

Sputum

To obtain cells from an upper respiratory tract lesion, this technique is recommended. Sputum is also useful in the diagnosis of fungal, viral, and parasitic infections. Unsatisfactory sputum will be reported out if no alveolar macrophages are present or no diagnostic cells are present. To increase adequacy, sputum specimens should be obtained by an early morning, deep cough for 3 – 5 consecutive days.

DIRECTIONS

Place the sputum specimen directly in a clean container. Do not add any preservatives. Bring to the laboratory immediately. If unable to bring to laboratory immediately, place in refrigerator until it can be brought to the laboratory.

Bronchoalveolar Lavage (BAL)

To obtain cells from lower respiratory tract lesion, this technique is recommended. BAL specimens are obtained by wedging a subsegmental bronchus with a bronchoscope and lavaging the area with saline or balance salt solution.

This technique is most useful in diagnosing opportunistic infections in immunocompromised patients. This can also be useful in diagnosing interstitial lung disease, granulomatous disease, including sarcoidosis, hypersensitivity pneumonia, drug induced pulmonary toxicity, asbestosis, pulmonary hemorrhage, and neoplasm (benign and malignant). BAL can also evaluate transplant rejection.

DIRECTIONS

Place the specimen in a clean container. Do not add any additional preservatives. Bring specimen to the laboratory immediately. If unable to bring immediately, place in refrigerator until it is brought to the laboratory.

Bronchial Brushings / Washings

This is most warranted when abnormal sputum has recently been reported or a lesion is suspicious.

DIRECTIONS

Brushings – Place specimens onto two slides, immediately submerge one in 95% alcohol and air-dry the other slide. Obtaining more slides is recommended. Put equal amount of slides in 95% alcohol immediately and air-dry the others. Any viable tissue fragments should be placed in 10% formalin to be processed as tissue.
Washings – Place the specimen in a clean container and following the BAL directions for additional information. Send specimen to laboratory immediately. If unable to bring immediately, place in refrigerator until it is brought to the laboratory.