

SPUTUM

The adequacy of a sputum specimen is determined by the presence of alveolar macrophages indicating that the specimen obtained is a deep cough specimen producing material from the lower airways. In addition, the specimen should not be obscured by oral or upper airway contaminants and have minimal amount of saliva present.

Indications

For the detection and characterization of premalignant/malignant pulmonary lesions or to detect infectious organisms such as Pneumocystis jiroveci.

Specimen Required

5 ml (about one teaspoon) or more, if possible, of sputum obtained from a deep cough specimen.

Supplies:

Sterile specimen cup (plastic container).

Collection Procedure

When clinically feasible, sputum specimens should be obtained as follows:

The optimum time for specimen collection is within 15 to 30 minutes after waking and before eating breakfast. Brushing of teeth or rinsing of the mouth thoroughly with water will reduce contamination by saliva. Instruct the patient to inhale and exhale deeply forcing air from the lungs using the diaphragm. Repeat until the patient coughs and is able to produce a sputum specimen. For patients who are unable to produce a satisfactory specimen, inhalation of a heated aerosol solution may be used to induce coughing.

This technique (induced sputum) should only be performed with a trained attendant present to assist the patient. Collect the specimen in the container, attempting to obtain at least one teaspoon of sputum. Specimen should be a deep cough and not saliva. Saliva is of no diagnostic value.

Sputum Specimen Transport

Send the specimen immediately to the laboratory, FRESH WITHOUT FIXATIVE. If microbiology studies are desired, indicate tests requested on the requisition slip. The specimen will be divided by the laboratory for microbiology studies (currently sent to Quest Diagnostics) and cytology studies. If transport of the specimen will be delayed, the specimen should be refrigerated until transported to the lab. Greater diagnostic yield may be obtained if specimens are submitted on three successive mornings. Label the container with correct patient information and submit the specimen along with the completed requisition to ARDX LMC.

Post Bronchoscopy Sputum

Collect **one** good deep cough specimen at any time during the 24-hour period following bronchoscopy as outlined above. Submit the specimen to ARDX LMC, along with a completed request form.