

Sputum Collection and Induction Procedures

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Results from Sputum Testing can:

- Provide initial diagnosis
- Provide drug susceptibility testing
- Allow monitoring of the patient for response to treatment



Initial Monitoring for Smear Conversion

- Frequency
 - Every 2 weeks after week 2 of therapy
- Number of specimens
 - 1 sample - collection observed by health care worker



Monitoring for Imminent Smear Conversion

- Frequency
 - Every few days to weekly
- Number of specimens
 - Total of 3 samples on 3 different days
 - Once first negative smear is determined during periodic monitoring for conversion, collect 2 additional samples; at least one should be observed by health care worker



Monitoring for Culture Conversion

- Frequency
 - Monthly
- Number of specimens
 - 3 samples on 3 different days; at least one should be observed by health care worker



Monitoring After Culture Conversion

- Frequency
 - Only if clinically indicated
- Number of specimens
 - 3 samples on 3 different days; at least one should be observed by health care worker



Supplies and Equipment - 2

- Gloves
- Bag for biohazard waste
- Tissues and bag for disposal
- Small glass of water



Additional Supplies for Induced Specimens

- Nebulizer
- Disposable tubing with upmist chamber and mouthpiece
- Sterile water or hypertonic saline (10%) for nebulizer



Spontaneous Collection Procedures -1

- Explain purpose of procedure to patient/family
- Give instructions for how to collect and handle specimen
- Early morning specimen preferable
- Patient should rinse mouth and/or brush teeth - no mouthwash



Spontaneous Collection Procedures -2

- Instruct to breath deeply several times, then cough vigorously
- Discuss need for sputum - deep secretions - not saliva or spit
- About 5-10 ml needed - send what you get
- Hot shower, boiling water may help



Spontaneous Collection Procedures -3

- Sample placed directly in inner tube
- Tube cleansed with antiseptic wipe
- TIGHTEN, TIGHTEN, TIGHTEN!
- Packaging for shipment
- Arrange for pick-up for non-observed specimens
- Refrigeration preferred if delay in transport
 - Holds down growth of contaminants



Spontaneous Collection Procedures

- Label as “induced specimen”
- Assemble machine
- Discuss disposable supplies and cleaning of machine to reassure patient
- Assure that nebulizer is producing adequate mist
- Instruct patient to breathe mist in deeply
- As soon as coughing begins, collect sample
- If does not produce cough, instruct to cough vigorously
- May take 5 minutes of mist time!



Infection Control - 1

- Cover with tissue while coughing unless actually producing sample
- HCW should wear approved mask (N95)
- LOCATION, LOCATION, LOCATION
 - Healthcare setting
 - Negative pressure
 - 12 ACH
 - Outside exhaust



Infection Control - 2

Home

- Exclude other family members
- Well ventilated area - room with window and door or **outside!**
- Vacate room for several hours following procedure, if possible
- Shut door!



After the Collection

- Discard tubing and other contaminated supplies in approved biohazard containers
- Clean nebulizer with 1:10 bleach solution (change filters as needed)
- Patient should remain isolated until coughing subsides
- Send specimens to lab through normal process
- Discuss timeframe for results with patient
- Schedule additional samples if needed


