



IDAHO DEPARTMENT OF HEALTH & WELFARE
DIVISION OF PUBLIC HEALTH

| Test Title | Acid-Fast Bacilli (AFB) Direct Smear and Culture |
|-------------------------------------|---|
| Sample | 1. Sample type(s): See table below |
| Requirements | 2. Rejection Criteria: See table below |
| Sampling Materials | 1. Sample container: See table below 2. Sample tube/container must be properly labeled with patient name and ID number, and requisition form must be completed. |
| Procedural Notes | 1. Clinical Test Request Form 2. All unprocessed samples will be digested/decontaminated and examined with a Direct Smear test and placed into culture. 3. CPT Code: 87015 (concentrate), 87206 (stain), 87116 (culture), 87560 (<i>M. avium</i>), 87550 (<i>M. gordonae</i>), 87158 (sequence analysis) |
| Shipping Instructions | 1. Temperature/preservative instructions: maintain samples at 4-8°C (refrigerator temperature) 2. Package and ship according to Biological Substance, Category B, shipping guidelines. 3. Ship to: Idaho Bureau of Laboratories ATTENTION: TB Laboratory 2220 Old Penitentiary Rd Boise, ID 83712 |
| Reporting and Turnaround Time (TAT) | 1. Direct Smear TAT: 1-2 business days a. A positive direct smear is reported immediately to the client via phone call. 2. Primary Culture: 1-7 weeks 3. Reference Range: qualitative results (no acid fast bacilli seen/cultured or organism identified) 4. <i>Mycobacterium tuberculosis</i> complex is reported to the client and the State TB Controller's office the same day of identification. This disease must also be reported to your local health district or to the Division of Public Health, Bureau of Communicable Disease Prevention according to the Idaho Reportable Disease Rules (IDAPA 16.02.10). |

| SPECIMEN TYPE | SPECIMEN REQUIREMENTS | SPECIAL INSTRUCTIONS | REJECTION CRITERIA |
|--|---|---|---|
| Abscess Contents, Aspirated Fluid (Transtracheal Aspirates, Wound Material) | Collect as much as possible but no greater than 10 mL in a sterile leak proof container. | Cleanse skin with alcohol before aspirating sample. | Dry swab Specimen with needle attached |
| Blood | 10 mL sodium polyanetholesulfonate (SPS, yellow top) blood collection tube is preferred. Heparinized blood tube (green top) is also acceptable. | Disinfect site as for routine blood culture. Mix tube contents immediately after collection. SPS is the preferred anticoagulant, as it enhances growth of mycobacteria. This sample source is not approved for MGIT culture system, and results must be interpreted accordingly. | Collected in EDTA (inhibits mycobacterial growth even in trace amounts) Coagulated blood Insufficient volume: <10 mL adult; <5 mL pediatric |
| Body Fluids (Pleural, Pericardial, Peritoneal, etc.) | Collect as much as possible (1.0 mL minimum, maximum of 10 mL) in a sterile leak proof container. Use a SPS blood collection tube for extremely bloody specimens. | Disinfect site with alcohol if collecting by needle and syringe. Since many of these fluids may contain fibrinogen, it may be necessary to add anticoagulant (SPS or heparin) to collection containers. | Incorrect volume: <1 mL or >10 mL |
| Bone | Submit in sterile container without fixative or preservative. | Submit specimen in formalin. | Broken or leaking container |
| Bone Marrow | Collect as much as possible in SPS blood collection tube; 5-10 mL is optimal; no more than 10mL. | Collect aseptically. Mix SPS tube contents immediately following collection. | Collected in EDTA (inhibits mycobacterial growth) |
| Bronchoalveolar Lavage or Bronchial Washings | 5-10 mL in sterile leak proof container | Avoid contaminating specimen with tap water. Saprophytic mycobacteria may produce false positive culture or smear results. | Insufficient volume: <5 mL adults <1 mL pediatric |
| Bronchial Washings | Sterile leak proof container | | Broken or leaking container |

| SPECIMEN TYPE | SPECIMEN REQUIREMENTS | SPECIAL INSTRUCTIONS | REJECTION CRITERIA |
|---|---|---|---|
| Cerebral Spinal Fluid (CSF) | Minimum of 600 μ L in sterile leak proof container. | Use maximum volume attainable for maximum recovery. A high protein, lymphocytosis, and low glucose are typical of tuberculous meningitis. | Insufficient volume: <600uL adults |
| Gastric Aspirate/ Lavage Fluid | \geq 5 mL (50 mL is optimal) in sterile leak proof container. Early morning, fasting specimen is optimal. | Collect on three consecutive mornings. Use sterile saline. Adjust to neutral pH with 100 mg of sodium carbonate if specimen is not processed within 4 hours of collection. | Specimen not neutralized Insufficient volume: <5 mL Multiple specimens taken from same day |
| Skin Lesion Material | Submit biopsy or aspirate specimen in sterile container without fixative or preservative. | For cutaneous ulcer, collect biopsy sample from periphery of lesion or aspirate material from under margin of lesion. Notify IBL if infection was acquired outside of U.S. | Swab specimens |
| Sputum | 5-10 mL in sterile, leak proof container. Early morning specimen from deep, productive cough on at least 3 consecutive days. For follow-up of patients on therapy, collect at weekly intervals beginning 3 weeks after initiation of therapy. | Expectorated sputum: Instruct patient as to difference between saliva and sputum. Have patient rinse mouth with water before collecting sputum to minimize contamination with food, mouthwash, oral drugs, etc. Induced sputum: Use sterile hypertonic saline. Indicate on request if specimen is induced, as these watery specimens resemble saliva. | Expectorated sputum that resembles saliva 24 hour pooled specimens |
| Stool | \geq 1 g in sterile leak proof container | | Specimens in preservative Frozen specimens |

| SPECIMEN TYPE | SPECIMEN REQUIREMENTS | SPECIAL INSTRUCTIONS | REJECTION CRITERIA |
|--|---|--|---|
| Tissue Biopsy (Including Lymph Nodes) | 1 g of tissue, if possible, in sterile container without fixative or preservative. | Collect aseptically, avoiding indigenous microbial flora. Select caseous portion if available. Do not immerse in saline or other fluid or wrap in gauze. | Specimen submitted in formalin Frozen specimens |
| Urine | Collect as much as possible (minimum 40 mL) of first morning specimen (catheter, clean catch, mid-stream) in sterile leak proof container. For suprapubic tap, collect as much as possible. | Collect first morning specimen on 3 consecutive days. Organisms accumulate in bladder overnight, so first morning void provides best yield. Specimens collected at other times are dilute and are not optimal. This sample source is not approved for MGIT culture system, and results must be interpreted accordingly. | 24 hour pooled specimen Multiple specimens taken from same day Insufficient volume: <40 mL adult; <10 mL pediatric unless larger volume is not obtainable |