

**Illinois Department of Public Health
Division of Laboratories
Instructions for Mycobacteria Specimen Collection and Submission**

Instructions for Referred Cultures

Referred Mycobacterium cultures must be submitted on solid medium, in screw-cap tubes or Mycobacterium pellets in screw-cap tubes. Secure the cap with tape.

1. Never ship cultures on petri-dishes or in liquid medium.
2. The specimen container must have the patient's name and/or identification number and must match the name and/or identifier on the "Communicable Diseases Laboratory Test Requisition." The requisition also must have the specimen source, date and time of collection, submitter's name and location or submitter's code.
3. Deliver specimens to the laboratory as soon as possible.

Packaging and Shipping of *Mycobacterium tuberculosis* Referred Cultures:

Package as a Category A infectious substance using United Nations (U.N.) certified 6.2 packaging, according to DOT 49 Parts 171-178 and the U.S. Postal Service regulations. If you are using a private carrier (i.e. Fed Ex.) follow their requirements. Follow certified packaging manufacturer's instructions for packaging and labeling. Compliance with the requirements of the regulations is the responsibility of the shipper.

Instructions for Specimens sent for Diagnosis

Acceptable Specimens:

1. Successful isolation of the pathogen requires that the best specimen be properly collected, promptly transported and carefully processed.
2. If possible, collect specimens before chemotherapy is started.
3. Collect specimens in sterile, leak-proof containers; DO NOT use waxed containers.
4. Label the specimen container with the patient's name and/or identification number. Identification must match the name on the requisition. Complete the requisition to include the patient's name, provider name and location or provider code; collection date and time, and test requested.
5. Label induced sputum specimens as "Induced" since they resemble saliva.
6. Collect only one early morning specimen on three different days (only 1/day); **Do Not Pool specimens.**
7. Collect specimens aseptically, minimizing contamination with indigenous microbiota.
8. Collect sufficient materials for the test requested. **Refer to attached chart, "Specimen Requirements for Mycobacterial Isolation," for additional information.**
9. For optimal pulmonary specimens (not saliva or nasopharyngeal discharge), collect sputum from the lung after a deep, productive cough.

10. Other acceptable pulmonary specimens are bronchial washing, bronchial biopsies, bronchial brushing and trans-tracheal aspirate.
11. Collect body fluids aseptically, such as spinal, pleural, pericardial, synovial, ascitic fluids, blood, pus, and bone marrow. Use yellow top tubes and isolator tubes for blood and bone marrow.
12. Consider collecting gastric aspirate if other methods fail to produce a valid specimen. See page three for special instructions for this source.
13. Collect laryngeal swabs from children only or patients who are unable to produce sputum.
14. Urine specimens: Submit a single first morning specimen. Wash the external genitalia before the specimens are collected. Process the urine immediately or refrigerate. **Urine specimens are not recommended for the isolation of Mycobacteria.**
15. **Transport specimens to the laboratory as soon as possible; specimens must reach the laboratory within 10 days of collection.**

Conditions That Make the Specimen Unacceptable

1. Swabs are not recommended for the isolation of Mycobacteria. They are acceptable ONLY if a specimen cannot be collected by other means. This must be stated on the test requisition. The laboratory smear report will state that the specimen was submitted on a swab and another specimen should be submitted as soon as possible.
2. Specimens received more than 10 days after collection will be rejected as unsatisfactory.
3. Specimens that have leaked.
4. Blood collected in ethylene diamine tetra-acetic acid (EDTA).
5. Specimens collected in formalin.
6. 24-hour pooled specimens.
7. Unlabeled specimens.
8. Specimen Name/ID number on specimen does not match on requisition form.

Instructions for Packaging and Shipping Specimens for Diagnosis

1. **Messenger/Courier by ground transport** Wrap specimen in absorbent material. Place wrapped specimen into a biohazard labeled bag and seal securely. Place the test requisition on the outside of the biohazard labeled bag. Place the sealed biohazard bag and test requisition inside the shipping container. The shipping container must be rigid such as a cooler and labeled with the UN 3373 Biological Substance Category B marking. Close securely.
2. **Commercial carrier by ground/air transport** Wrap specimen in absorbent material. Place the wrapped specimen inside a biohazard labeled 95 kPa bag and seal following the instructions on the bag. Place the test requisition on the outside of the 95 kPa bag. Place the sealed 95 kPa bag and completed test requisitions inside the outer shipping container and close securely. Label the outer shipping container with the appropriate Illinois Department of Public Health laboratory address. Complete the return address section to include the name of the person shipping the package, business name and address and a business phone number. The shipping container must include the UN3373 Biological Substance Category B marking.
3. If the specimen(s) cannot be shipped immediately, store at 4 C to 8 C. **Transport specimens to the laboratory as soon as possible; specimens must reach the laboratory within 10 days of collection.**

Send to	Illinois Department of Public Health Division of Laboratories 2121 W. Taylor St. Chicago, IL 60612-4285 Phone 312-793-1063	Fax 312-793-7764
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Specimen Requirements

SPECIMEN REQUIREMENTS FOR MYCOBACTERIAL ISOLATION		
SPECIMEN TYPE	OPTIMAL SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS
ABSCESS CONTENT, ASPIRATED FLUID	>1ML IN STERILE SCREW CAPPED TUBE	CLEANSE SKIN WITH ALCOHOL BEFORE ASPIRATING SAMPLE. DISINFECT SITE AS FOR ROUTINE
BLOOD	10 ML (YELLOW TOP) BLOOD COLLECTION TUBE	BLOOD CULTURE. MIX TUBE CONTENTS IMMEDIATELY AFTER COLLECTION.
BODY FLUIDS	AS MUCH AS POSSIBLE IN A STERILE CONTAINER	VOLUMES OF <10 ML MAY BE DIRECTLY INOCULATED INTO MGIT TUBES
BONE	BONE IN STERILE CONTAINER WITHOUT FIXATIVE	
BRONCHO-ALVELOR LAVAGE OR BRONCHIAL WASHING	>5 ML IN STERILE CONTAINER	COLLECT ASEPTICALLY
BRONCHIAL BRUSHING	BRONCHIAL BRUSH IN STERILE CONTAINER	
CSF	>2 ML IN STERILE CONTAINER	USE MAXIMUM VOLUME ATTAINABLE
GASTRIC ASPIRATE	>5-10 ML IN STERILE CONTAINER	COLLECT EARLY MORNING SPECIMEN ON THREE CONSECUTIVE DAYS. ADJUST pH, ADD 100 MG OF SODIUM CARBONATE FOLLOWING COLLECTION.
LYMPH NODE	NODE OR PORTION WITHOUT FIXATIVE	COLLECT ASEPTICALLY
SKIN LESION	SUBMIT BIOPSY IN STERILE CONTAINER	COLLECT BIOPSY FROM PERIPHERY OF LESION, OR ASPIRATE MATERIAL FROM UNDER MARGIN OF LESION
SPUTUM	5 ML IN STERILE, WAX-FREE DISPOSABLE CONTAINER. COLLECT AN EARLY MORNING SPECIMEN FROM DEEP, PRODUCTIVE COUGH ON AT LEAST THREE DIFFERENT DAYS. DO NOT POOL SPECIMENS. FOR FOLLOW UP ON PATIENT THERAPY, COLLECT AT WEEKLY INTERVALS BEGINNING THREE WEEKS AFTER INITIATION.	INSTRUCT PATIENT ON HOW TO PRODUCE SPUTUM. HAVE PATIENT RINSE MOUTH WITH WATER BEFORE COLLECTING.
STOOL	>1 GM IN STERILE CONTAINER	COLLECT SPECIMEN DIRECTLY INTO CONTAINER
TISSUE BIOPSY SAMPLE	GM OF TISSUE, IN STERILE CONTAINER	COLLECT ASEPTICALLY
URINE	MINIMUM 40 ML OF FIRST MORNING SPECIMEN	COLLECT FIRST MORNING SPECIMEN ON THREE DIFFERENT DAYS. ACCEPT ONLY ONE SPECIMEN/DAY
TRANS-TRACHEAL ASPIRATE	AS MUCH AS POSSIBLE IN STERILE CONTAINER	