

Clinical Microbiology Sample Collection Manual

By

MICROCARE LABORATORY

**LOCATION: 105, FIRST FLOOR, MANTHAN POINT, UNAPANI ROAD, LAL DARWAJA,
SURAT-3**

Ph: 0261-2450049 / 6952555

E-mail: microcaresurat@yahoo.co.in

Website: www.microcarelab.com

Forward

“Results are as good as specimen”

The procedures were developed to provide for the best possible recovery of pathogenic microorganisms in samples submitted for microbiological examination.

Information contained in this manual has been derived from various references and represents “best practice” in regards Clinical Microbiology sample collection, storage and transport.

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NABL

**National Accreditation Board for
Testing and Calibration Laboratories**
Department of Science & Technology, India

CERTIFICATE OF ACCREDITATION

MICROCARE LABORATORY

has been assessed and accredited in accordance with the standard

ISO 15189:2007

"Medical Laboratories - Particular requirements for quality and competence"

for its facilities at

105, Manthan Point, Unapani Road, Lal Darwaja, Surat
in the field of

MEDICAL TESTING

(You may also visit NABL website www.nablindia.org to view the scope of accreditation)

Certificate Number M-0301
Issue Date 28/03/2011

Valid Until 28/03/2013

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

Rajesh Maheshwari
Convener

Arjit Bhatia
Director

Dr. T. Ramaswami
Chairman

STANDARDS CERTIFICATION COUNCIL

CERTIFICATE OF REGISTRATION



LODUS OLASSIUS

The Standards Certification Council hereby certifies that:

MICROCARE LABORATORY

Registration No. SCCIN/QMS/1521

Operates Quality Management System which complies with requirements of:

ISO 9001:2008

Address to which this certificate refers:

Location: 105, Manthan Point, Unapani Road, Surat - 395003, Gujarat, India.

Approved Scope to which this Certificate refers:

Microbiological Testing Of Biological Samples, Water, Food, Milk and Drugs.

Signed for and on behalf of the Standards Certification Council
Management Representative

Dip H. Deshmukh

Further clarifications regarding the scope of this certificate and implications of ISO 9001:2008 requirements may be obtained by consulting the organization. This Certificate of Registration is granted subject to the terms/Regulations approved by the Standards Certification Council. The validity of this certificate is maintained through ongoing surveillance assessment. This certificate remains the property of Standards Certification Council and shall be returned immediately upon request. This is not a legal document.

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Certificate Issue Date: 30th July 2010

Certificate Expiry Date:

29th July 2012



STANDARDS CERTIFICATION COUNCIL PRIVATE LIMITED
E-42, First Floor, Ghanshyam Society, 7th Cross, 27th Sector-7,
Chandigarh, Punjab, India. M: +91-987 007 1000
T: +91-172-2688377, 2688378, 1888379
E-MAIL: sccl@sccl.net.in - Website: www.scclindia.com

GENERAL GUIDELINE

Services:

Microcare laboratory provides all microbiological needs in clinical samples.

Timing of Laboratory:

Monday to Saturday: 9:30 am to 9:00 pm & Sunday: 9:30 am to 12:30 pm

Sample Delivery:

Sample may be delivered at any time within time limit as mentioned above.

Specimen Hazards:

Specimen that breaks or leak during transport poses a serious physical and infection risk to staff that transport, receive or process them. All specimen sent to laboratory must be properly packaged and transported.

Critical call practice:

Listed results will be telephoned to the physician or other clinical personnel responsible for the patient's care.

TEST	SPECIMEN	VALUE
ACID FAST STAIN	Respiratory sample	Positive
BLOOD CULTURE	Blood	Positive
CRYPTOCOCCUS [INIDA INK]	CSF	Positive
GRAM'S STAIN	CSF	Any microorganisms
ALBER'S STAIN	Throat swab	Gram positive rods with metachromatic granules
GRAM'S STAIN	Pus	Spore bearer bacteria

Technical support services:

The technical support services section is responsible for:

- Specimen receiving and processing, washing and sterilization,
- Quality control ,
- Media preparation and QC,
- Co-ordination with accreditation programme and internal / external proficiency testing programme,
- Verification of all diagnostic kits and identification kits,

Specimen submission requirement:

Specimen collected and transported to Microcare laboratory requires following information:

Requisition requirements:

Each clinical sample must have its own Microcare laboratory requisition.

Patient's information:

- Patients full name,
- Patients age,
- Patients sex

Clinician / laboratory information: Ordering Clinician / laboratory full name

Specimen information:

- The source and type of specimen,
- Specimen collection date and time,
- Requested procedure,
- Clinical information [History, Present antibiotics, diagnosis, risk factors]

LABEL THE SPECIMEN AS PER REQUISITION

“IF SPECIMEN RECEIVED AT MICROCARE LABORATORY THAT IS INAPPROPRIATE LABELLED OR PACKAGED, THE SENDER WILL BE NOTIFIED. REPEAT ERROR WILL RESULT IN NON PROCESSING OF SAMPLE.”

Sample rejection criteria:

- Discrepancy between patient identification on requisition & specimen container label.
- Test not indicated on requisition or No identification on container.
- Specimen received in fixative [formalin]
- Foley catheter tip, Unpreserved urine held in refrigerator for >24 hours.
- Improper or nonsterile or leaking container or broken bottle.
- More than one specimen of urine, stool, sputum, wound or routine throat specimen submitted on the same day from the same source.
- Dry swab.
- Specimen source or type not found
- Only one swab submitted with multiple requests for various organisms [bacteria, AFB, fungi, virus, ureoplasmas, etc.]
- Sputum specimen with <25 WBC, > 10 epithelial cells/lpf

FACTORS THAT MAY AFFECT RESULTS:

The following are important considerations when submitting samples for bacteriological investigation:

Delay in transport: This may affect the viability of pathogens and allow overgrowth of normal flora or contaminating organisms. Morphological appearance of cells may also be affected

Excessive temperature: Generally speaking, bacteriology samples should be kept cool. As the temperature increases bacterial activity may also increase leading to misleadingly high counts for pathogens or overgrowth of normal or contaminating flora. Excessively high temperature may kill the target organism. Some organisms do not tolerate cooling well and so there is no substitute for rapid transport.

Inappropriate specimen, site or transport medium: If the specimen is taken from the wrong site (e.g. vaginal rather than cervical), or it is the wrong type of specimen (e.g. swab rather than pus) or it is put into the wrong transport medium (e.g. Viral transport rather than bacterial transport) then optimal recovery of the target organisms will not be possible.

Clinical Data: It is essential that appropriate clinical information is supplied. This will include the specific anatomical site and the nature of the sample, history of patients.. Failure to provide relevant information may mean that the most appropriate investigation is not performed.

Antibiotic treatment: Current or recent treatment with antibiotics should be provided as this may affect the culture results obtained.

Specimen: Abscess (aspirate or swab) Culture

Collection Instructions:

- Sample must be acquired using aseptic technique.
- Remove surface exudate if present by wiping an open abscess with sterile saline or 70% Alcohol. Sample the leading edge of an open abscess.
- Closed abscess should be aspirated with a needle and syringe after sterilizing skin with an Iodine, chlorhexidine preparation or isopropyl alcohol wipes.
- Follow protocols outlined by your health care facility for this sample type. Sampling of skin surface area can introduce colonizing bacteria not involved in the infectious process.

Sample collection container or system:

Aspirate: anaerobic transport system, always submit as much sample as possible.

Swab: place in transport medium which will maintain anaerobe viability.



Comments: Aspirate if possible; an aspirate is always superior to a swab specimen. Swab samples are suboptimal for bacterial culture (aerobic or anaerobic) because of low specimen collection volume and exposure to oxygen (anaerobes). If abscess is open, ensure all pus and cellular debris is removed, then swab deep into the lesion and firmly sample the lesions advancing edge.

Specimen: Blood Culture

Collection Instructions:

- Disinfect rubber stopper on the culture bottle using 70% alcohol, wait one minute. Allow to dry (do not repalpate vein).
- Disinfect palpated venipuncture site using a chlorhexidine/70% alcohol swab by using a back and forth friction rub to cleanse the skin, cleanse for 15 seconds over a 4 cm x 4 cm area.
- Collect blood using needle and syringe or safety butterfly.

Weight	Required Blood Volume
<4 kg	0.5-1 mL
4 - <9 kg (<20 lbs)	2-4 mL
9-27 kg (20-60 lbs)	10 mL
28 kg (61+ lbs)	30 mL

- Acute febrile episode:
- 30 mL from 2 separate peripheral sites, all within 10 minutes, prior to antimicrobials
- Non-acute disease (antimicrobial will not be started or changed immediately):
- 30-50 mL from 2 or 3 separate peripheral sites, all within 24 hours at intervals no closer than 3 hours (collect 30 mL as described above and then aerobic [10 mL] and anaerobic [10 mL] from a third peripheral site).
- Endocarditis (acute):
- 50 mL from 3 separate peripheral sites; within 1-2 hours before antimicrobials if possible (collect 30 mL as

described above and then aerobic [10 mL] and anaerobic [10 mL] from a third peripheral site).

Fever of unknown origin:

- 30-50 mL from separate peripheral sites ≥ 1 hour apart during 24 hour period (collect 30 mL as described above and then aerobic [10 mL] and anaerobic [10 mL] from a third peripheral site). If negative at 24-48 hours, obtain 30-50 mL more blood.

Pediatric:

- Collect immediately, rarely necessary to document continuous bacteremia with hours between cultures. Collect blood volume based upon patient weight not age.

Storage/Transport

Local: as soon as possible, hold at room temperature. Courier/local storage: ≤ 24 hrs, hold at room temperature

Comments: Indicate antimicrobial therapy on ordering requisition.



Specimen Bone Marrow

Collection Instructions

- Prepare puncture site as per surgical incision.
- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type.

Device and/or minimal volume

- If sample is set up for requested tests at the patient bedside, culture as follows:
- Bacterial culture aseptically inoculates 0.5–2 mL into a blood culture bottle.
- If sample cannot be inoculated onto appropriate culture media at the patient bedside, submit as much volume as possible in a sterile, screw capped specimen container.

Storage/Transport

Local: as soon as possible

Courier/local storage: ≤ 24 hrs at room temperature



Specimen Broncho-Alveolar Lavage (BAL) - Culture

Collection Instructions

Follow procedure outlined by your health care facility.

Device and/or minimal volume

Sterile screw capped container. 1-20 mL is required for quantitative analysis.



Comments:

- Increased volume of sample facilitates the isolation of pathogenic fungi and mycobacteria.
- Indicate antimicrobial therapy or antifungal therapy on ordering requisition.

Specimen Burn (tissue or exudate swab)

Collection Instructions

- Clean and debride the wound prior to specimen collection.
- Add several drops of sterile saline to prevent sample from drying if specimen cannot be delivered immediately to the lab.

Device and/or minimal volume

- Tissue (after debridement): Place punch biopsy in sterile screw capped container.
- Swab of exudate: Place swab in transport medium.



Storage/Transport

Local: Transport as soon as possible to laboratory

Courier/local storage: ≤ 24 hrs, store at room temperature

Comments:

Surface cultures of burn wounds may be misleading. Indicate antimicrobial therapy on ordering requisition.

Specimen Catheter (intravenous or intra-arterial)

Collection Instructions

- Cleanse skin around site with 70% alcohol.
- Aseptically remove catheter and clip the 5 cm distal tip of the catheter into a sterile screw capped transport container.

Device and/or minimal volume

Place sample in sterile screw capped container.



Storage/Transport

Local: Transport as soon as possible to prevent drying, hold at 4°C

Courier/local storage: ≤ 24 hrs, store at 4°C

Comments

Indicate antimicrobial therapy on ordering requisition.

Specimen Cerebrospinal Fluid (CSF)

Collection Instructions

- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type.
- Collect at least 1 ML for Microbiological examination.

Submit in sterile screw capped container.



Storage/Transport:

Local: Transport as soon as possible (≤ 15 minutes), hold at room temperature

Courier/local storage: ≤ 24 hrs at room temperature

Comments: Avoid the use of larger capacity sterile containers (≥ 90 mL) as small samples are difficult to retrieve. Do not submit samples for microbiologic investigation on ice. Indicate antimicrobial therapy or antifungal therapy on ordering requisition.

Specimen Cervical Swab Culture**Collection Instructions**

- Visualize the cervix using a speculum without lubricant.
- Remove mucus and secretions from the cervix with a sterile swab, discard the swab.
- Sample the endocervical canal with a newly obtained sterile swab.

Device and/or minimal volume

Swab transport medium.

**Storage/Transport**

Local: ≤ 2 hrs at room temperature

Courier/local storage: ≤ 24 hrs at room temperature

Comments Do not use calcium alginate or cotton swabs as they may be inhibitory to *N. gonorrhoeae*. Transport as soon as possible to the lab. Viability of *N. gonorrhoeae* held in transport medium decreases substantially after prolonged storage.

Specimen Corneal Scrapings**Collection Instructions**

- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type.

Device and/or minimal volume**Storage/Transport**

Local: Transport as soon as possible, store plates at room temperature

Courier/local storage: ≤ 24 hrs, store plates and slide at room temperature

Comments Anesthetics may be inhibitory to some etiologic agents, a conjunctiva sample may be collected prior to collecting corneal scrapings. Indicate antimicrobial therapy or antifungal therapy on ordering requisition.

Specimen Device Culture (orthopedic hardware, heart valve, etc)**Collection Instructions**

- Sample must be acquired using aseptic technique. Follow protocols outlined by your health care facility for this sample type.

Device and/or minimal volume

Sterile screw capped specimen container.

**Storage/Transport**

Local: ≤ 2 hrs at room temperature, ≤ 24 hrs at 4°C

Courier/local storage: ≤ 24 hrs at 4°C

Specimen Ear Swab / Ear Pus:**Collection Instructions**

- Inner ear: Sample must be acquired using aseptic technique. Follow protocols outlined by your health care facility for this sample type.
- Outer ear: Use a moistened swab to remove any debris or crust from the ear canal. Obtain sample by firmly rotating swab in the outer canal.

Device and/or minimal volume

Fluid sample: Submit in sterile screw capped container. Always submit as much sample as possible.

Swab: Submit in transport medium.

**Storage/Transport**

Local: Fluid or swab – transport as soon as possible (≤ 2 hrs), store at room temperature

Courier/local storage: Fluid or swab – ≤ 24 hrs, store fluid at room temperature, store swab at 4°C

Comments

- Tympanocentesis should be reserved for complicated, recurrent or chronic persistent otitis media. For otitis external, vigorous swabbing is required after debris or crust has been removed since surface swabbing may miss pathogens. Indicate antimicrobial therapy on ordering requisition.
- If requests are being made for more than one test on a swab taken from a specific site, i.e. bacterial culture aerobes, bacterial culture anaerobes and fungus culture, please ensure that a separate swab sample is submitted for each test requested. Failure to provide separate swabs will result in sub optimal microbiology culture results. Accurate patient identification must be made prior to sample collection.

Specimen Eye (conjunctiva)**Collection Instructions**

- Sample eye using swab pre-moistened with sterile saline.
- Roll swab over conjunctiva.

Device and/or minimal volume

Submit swab in transport medium.



Storage/Transport

Local: ≤ 2 hrs, hold at room temperature
Courier/local storage: ≤ 24 hrs, hold at room temperature

Comments If possible, sample both conjunctivae even if only one is infected. The uninfected eye can serve as a control to compare to the agents isolated from the infected eye. Indicate antimicrobial therapy on ordering requisition.

Specimen Feces (stool) culture

Collection Instructions

- Sample should be passed directly into a clean, sterile container. Avoid contaminating sample with urine.
- Transport the sample promptly to the laboratory (≤ 1 hour). If transport is delayed, transfer a portion of the sample to an enteric pathogen transport medium such as Cary Blair or transfer
- A portion of the sample to a swab transport system such as Amies. The swab must have a visible amount of specimen.

Device and/or minimal volume

- Clean/sterile, leak-proof screw capped container or a transport system; ≥ 5 gm (≥ 5 mL).
- Delayed transport: Use swab transport system or transport medium for stool sample which has been formulated to maintain viability of enteric pathogens.



Storage/Transport

Local transport, unpreserved sample: ≤ 1 hr at room temperature, ≤ 24 hrs at 4⁰C
Local transport, sample in transport medium: ≤ 24 hrs at 4⁰C

Rejection Criteria

- Routine stool cultures for enteric pathogens are not performed on samples taken from patients who have been hospitalized for > 72 hrs unless there are extenuating circumstances.
- Samples submitted in enteric transport medium must have appropriate sample to preservative ratio.

Comments

Rectal swabs for routine pathogens are not recommended except in infants. If enteric pathogen other than stated above is suspected, please indicate on ordering requisition.

Specimen Fluids (Includes all aseptically obtained fluids such as: abdominal, amniotic, ascites, bile, joint, paracentesis, pericardial, peritoneal, pleural, synovial, continuous ambulatory peritoneal dialysis fluid (CAPD) and thoracentesis)

Collection Instructions

- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type.

Device and/or minimal volume

Sterile screw capped transport container. Volume as follows:
Bacterial / Fungal Culture ≥ 1 mL
AFB (Mycobacteria) Culture ≥ 5 mL



Storage/Transport

Local: Transport as soon as possible, hold at room temperature

Courier/local storage: ≤ 24 hrs at room temperature

Comments Always submit as much fluid as possible, do not submit a swab dipped in fluid. If anaerobes are suspected, sample should be transported in anaerobic transport system. Indicate antimicrobial therapy or antifungal therapy on ordering requisition. Where local protocol allows, the CAPD bag may be submitted to the testing laboratory. Accurate patient identification must be made prior to sample collection. Patient identification should be done in accordance with the site policy.

Specimen Hair (Dermatophytes Culture)

Collection Instructions

- Using forceps collect at least 10-12 affected hairs with the base of the shaft intact. Place hairs in a sterile container and submit. **OR**
- Using a new soft bristle toothbrush, rub affected area to collect hair and scale; submit brush.

Device and/or minimal volume

Sterile (or clean) screw capped container; minimum of 10 hairs.

**Storage/Transport**

Local: ≤ 24 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs, store at room temperature

Comments Collect scalp scales, if present, along with scrapings of active borders. Indicate any recent antifungal therapy.

Specimen Nail (Dermatophytes Culture)

Collection Instructions

- Wipe the nail using 70% alcohol using gauze, not cotton.
- Clip a portion of the area or collect material by scraping deeply enough to obtain recently invaded nail tissue. Place material in sterile container.

Device and/or minimal volume

Sterile (or clean) screw capped container. Obtain enough scrapings to cover the head of a thumb tack.

**Storage/Transport**

Local: ≤ 24 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs, store at room temperature

Comments Indicate any recent antifungal therapy.

Specimen Nasal Swab

Collection Instructions

- Insert the swab, pre-moistened with saline, ≈ 2 cm into the nares.
- Rotate the swab against the nasal mucosa.

Device and/or minimal volume

Submit swab in transport medium.

**Storage/Transport**

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Comments

Anterior nose cultures are reserved for identifying staphylococci carriers or for nasal lesions only. Accurate patient identification must be made prior to sample collection.

Specimen

Nasopharyngeal Aspirate

Collection Instructions

Follow protocols outlined by your health care facility for this sample type. **Device and/or minimal volume**

Sterile screw capped specimen container.

**Storage/Transport**

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Specimen

Nasopharyngeal Swab

Collection Instructions

- Gently insert a nasal pharyngeal swab into the posterior Nasopharynx via the nose.
- Rotate the swab slowly 5 seconds to absorb secretions.
- Place swab in transport medium.

Device and/or minimal volume

Submit swab in transport medium.

**Storage/Transport**

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Comments

Nasopharyngeal swabs are predominantly submitted for Bordetella. If an alternate etiologic agent, i.e. *C. diphtheriae*, is suspected, please indicate on requisition.

Specimen Skin Scraping (Dermatophytes Culture)

Collection Instructions

- Cleanse the affected area with 70% alcohol.
- Gently scrape the surface of the skin at the active margin of the lesion, **do not draw blood**.
- Place sample in a clean container or on black glassine paper (if available) then into a clean container.

Device and/or minimal volume

Sterile screw capped container. Obtain enough scrapings to cover the head of a thumb tack.



Storage/Transport

Local: ≤ 24 hrs, store at room temperature
Courier/local storage: ≤ 48 hrs, store at 4°C

Comments Indicate any recent antifungal therapy on ordering requisition.

Specimen Sputum Culture

Collection Instructions

- Sample should be collected under the direct supervision of a nurse or physician.
- Have the patient rinse or gargle with water to remove superficial flora.
- Instruct patient to cough deeply to produce lower respiratory secretions.
- Collect in sterile container.

Device and/or minimal volume

Sterile screw capped container, no preservatives.



Storage/Transport

Local: ≤ 2 hrs, store at room temperature
Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Rejection Criteria

Samples will be screened microscopically by laboratory to detect unsuitable samples, i.e. saliva. Patient request requisition and sample must have appropriate patient identifiers

Comments Respiratory therapists should collect a specimen via suction from pediatric patients unable to produce a sputum sample. Sputum for acid fast bacilli (AFB – Mycobacteria) culture should be collected on 2 consecutive mornings for diagnosis.

Specimen Surveillance Culture for Antimicrobial Resistant Organisms – MRSA (Methicillin Resistant *S. aureus*), VRE (Vancomycin Resistant Enterococcus), Nasal swab: MRSA Wound swab: MRSA Rectal swab: VRE

Collection Instructions

- A. Nasal Swab
- Insert the swab, pre-moistened with saline, approximately 2 cm into the nares.
 - Rotate the swab against the nasal mucosa.

Note: Both nares should be sampled using the same swab.

B. Wound Swab - Follow sample collection procedure recommended by Infection Prevention and Control.

C. Rectal Swab

1. Insert the swab into the rectum (through anal sphincter), gently rotate

Device and/or minimal volume

Submit swab in transport medium.



Storage/Transport

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Comments Samples other than rectal swabs are inappropriate for VRE surveillance. The rectal swab should be visibly soiled.

Specimen Throat Swab

Collection Instructions

- Depress the tongue with a tongue depressor.
- Sample the posterior pharynx, tonsils and inflamed areas.

Device and/or minimal volume

Submit swab in transport medium for culture.



Storage/Transport

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Comments Throat cultures are contraindicated for patients with an inflamed epiglottis. For specific etiologic agents, i.e. *C. diphtheriae*, please provide information to performing laboratory. Throat swabs for *N. gonorrhoeae* should be transported to the laboratory as soon as possible.

Specimen Tissue/Biopsy Sample

Collection Instructions

- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type.
- For small samples add several drops of sterile saline to keep moist. Do not allow tissue to dry out.

Device and/or minimal volume

- Anaerobic transport system or sterile screw capped specimen container. Do not add preservative. Always submit as much tissue as possible.



Storage/Transport

Local: Transport as soon as possible to laboratory (≤ 15 minutes)

Courier/local storage: ≤ 24 hrs, store at room temperature

Comments Always submit as much tissue as possible. Never submit a swab that has been simply rubbed over the surface of the tissue. Some *Legionella* may be inhibited by saline. Indicate antimicrobial therapy or antifungal therapy on ordering requisition.

Specimen Tracheal Secretion

Collection Instructions

- Follow protocols outlined by your health care facility for this sample type.
- Place aspirate in a trap or sterile container.

Device and/or minimal volume

Sterile trap or sterile screw capped specimen container.

**Storage/Transport**

Local: ≤ 2 hrs, store at room temperature

Courier/local storage: ≤ 48 hrs (≤ 24 hrs optimal), store at 4°C

Comments Increased volume of sample facilitates the isolation of fungi and mycobacteria. Indicate antimicrobial therapy on ordering requisition.

Specimen Urethral Swab (male) – Culture for *N. gonorrhoeae*

Collection Instructions

- Insert urogenital swab 2-4 cm into the urethral lumen.
- Rotate the swab, leave in place for at least 2 seconds to facilitate absorption.

Device and/or minimal volume

Submit swab in transport medium.

**Storage/Transport**

Local: Transport as soon as possible (≤ 2 hrs), store at room temperature

Courier/local storage: ≤ 24 hrs at room temperature

Comments Transport as soon as possible to the lab.

Specimen Urine – Indwelling Catheter

Collection Instructions

- Disinfect the catheter collection port with 70% alcohol.
- Use a needle and syringe to aseptically collect 5-10 mL of urine.
- Transfer sample to sterile container.

Device and/or minimal volume

Sterile, leak-proof screw capped container. Minimum volume ≥ 1 mL



Storage/Transport

- Local: unpreserved – ≤ 2 hrs at room temperature, ≤ 24 hrs at 4⁰C
- preserved – follow manufacturer's recommendations
- Courier/local storage: unpreserved – ≤ 24 hrs at 4⁰C
- preserved – follow manufacturer's recommendations

Comments Urinary catheter tips are inappropriate for culture and will be rejected. Patients with indwelling catheters always have bacteria in their bladders. Do not collect urine from these patients unless they are symptomatic. Indicate if patient is symptomatic or asymptomatic on ordering requisition when submitting a urine sample for bacterial culture.

Specimen Urine – Midstream

Collection Instructions

A. Female

- While holding the labia apart, begin voiding.
- After several milliliters have been passed, collect a midstream portion (without stopping the flow) into a sterile transport container.
- In case of asymptomatic UTI please send or collect two [2] consecutive days urine sample.

B. Male

- Retract the foreskin (if uncircumcised)
- Begin voiding.
- After several milliliters have been passed, collect a midstream portion (without stopping the flow) into a sterile transport container.

Device and/or minimal volume

Sterile, leak-proof screw capped container.



Storage/Transport

Local: unpreserved – ≤ 2 hrs at room temperature, ≤ 24 hrs at 4⁰C
Courier/local storage: unpreserved – ≤ 24 hrs at 4⁰C

Comments Increased volume of sample facilitates the isolation of fungi and AFB (Mycobacteria), pooling of urine is not recommended. Sample volume of at least 40 mL is optimal for AFB (Mycobacteria) culture. A volume of ≥ 1 mL is required for fungal culture. Indicate antimicrobial therapy on ordering requisition. Indicate if patient is symptomatic or asymptomatic on ordering requisition when submitting a urine sample for bacterial culture.

Specimen Urine – Straight Catheter

Collection Instructions

- Thoroughly cleanse the urethral area with soap and water or wipes.
- Rinse the area with wet gauze pads.
- Aseptically insert a catheter into the bladder.
- After allowing approximately 15 mL to pass, collect urine in a sterile container.

Device and/or minimal volume

Sterile, leak-proof screw capped container. Minimum volume ≥ 1 mL



Storage/Transport

Local: unpreserved – ≤ 2 hrs at room temperature, ≤ 24 hrs at 4°C

Courier/local storage: unpreserved – ≤ 24 hrs at 4°C

Comments Increased volumes are required for fungi and AFB (Mycobacteria). Indicate antimicrobial therapy on ordering requisition. Indicate if patient is symptomatic or asymptomatic on ordering requisition when submitting a urine sample for bacterial culture.

Specimen Vaginal Swab

Collection Instructions

- Wipe away old secretion or discharge.
- Obtain secretions from the mucosal membrane or the vaginal vault with a sterile swab.

Device and/or minimal volume

Submit swab in transport medium.



Storage/Transport

Courier/local storage: ≤ 24 hrs, store at room temperature

Comments please specify reason for culture on ordering requisition.

Specimen Wound

Collection Instructions

- Remove surface exudate by wiping with sterile saline or 70% alcohol.
- Sample must be acquired using aseptic technique.
- Follow protocols outlined by your health care facility for this sample type. Sampling of surface area can introduce colonizing bacteria not involved in the infectious process.

Device and/or minimal volume

Submit swab in transport medium which will maintain anaerobe viability.



Storage/Transport Local: Transport as soon as possible, hold sample at room temperature

Courier/local storage: ≤ 24 hrs at room temperature

Comments If abscess is open, swab deep into the lesion and firmly sample the lesions advancing edge. Indicate antimicrobial therapy on ordering requisition. If requests are being made for more than one test on a swab taken from a specific site, i.e. bacterial culture aerobes, bacterial culture anaerobes and fungus culture, please ensure that a separate swab sample is submitted for each test requested. Failure to provide separate swabs will result in sub optimal microbiology culture results.

SPECIMEN TURNAROUND TIMES

The times indicated are for release of final report subsequent to the sample being received in the Microcare Laboratory. A preliminary result may be available at an earlier time. Please limit enquiries to urgent results. Positive blood cultures and culture or detection of pathogens of significant public health importance will be communicated to relevant clinical staff as soon as result available.

SPECIMEN	TURNAROUND TIME
Abscess (aspirate or swab)	2 Days,
Blood	Negative culture: 5 days, Interim at 2 days indicating negative culture so far
Bone Marrow	Negative culture: 5 days, Interim at 2 days indicating negative culture so far
Burn (tissue or exudate swab)	2 Days
Catheter (intravenous or intra-arterial)	2 Days
Cerebrospinal Fluid (CSF)	2 Days
Corneal / Hair/ Nail/ Skin Scrapings	fungus culture up to 14 days
Device Culture	2 Days
Ear Swab / Ear Pus	2 Days
Eye (conjunctiva)	2 Days
Feces (stool) culture	2 days
Fluids	2 days
Nasal Swab/ Nasopharyngeal Aspirate or swab	2 days
Pus/ Wound	2 days
Sputum / Broncho-Alveolar Lavage /Tracheal Secretion	2 days
Surveillance sample	2 days
Throat Swab/ Cervical Swab	2 days
Tissue/Biopsy	2 days
Urethral Swab (male) – Culture for <i>N. gonorrhoeae</i>	3 days
Urine – Indwelling Catheter/ Midstream/ Straight Catheter	2 days
Vaginal Swab	2 days
Staining [Any]	24 Hours
Fungal Culture	fungus culture up to 14 days
Mycobacteria Culture By L.J.Medium	Interim positive results will be communicated to the relevant clinician Negative culture: 8 to 12 weeks
Mycobacteria Culture By Bactec MGIT	Up to 42 days

REFERENCES

- A. Isenberg, Henry D., editor. 2004. *Clinical Microbiology Procedures Handbook*, American Society for Microbiology, Washington DC.
- B. A Guide to Specimen Management in Clinical Microbiology, 2nd Edition, 1999. J. Michael Miller Ed. American Society for Microbiology. Washington, DC
- C. Manual of clinical microbiology 9th edition, Patric R. Murray, edition 2007, American society for microbiology, Washington, DC.