

**Use a two bottle blood culture set or a single paediatric bottle for the following investigations**



or



### **Blood Cultures**

Adult blood culture sets contains 2 bottles, 1 aerobic (blue cap) and 1 anaerobic (purple cap).

**Available from Blood Science Corridor, opposite the Blood Bank (RBH) & Lab Med Reception (HH)**

Paediatric blood culture (pink cap) is a single blood culture bottle and a stock is kept on PICU.

Instructions for inoculation of the bottles is included in the Blood Culture Pack.

**For optimal performance, inoculated blood culture vials should be transported to the lab for incubation as soon as possible after inoculation. Where a delay in transport of the blood cultures direct to the laboratory is expected please store the inoculated blood cultures at room temperature.**

**Use a single Mycobacteria bottle for the following investigation**

### **Blood Culture for Mycobacteria chimera**

A Mycobacterial culture set contains one bottle (white cap),

**Available from Blood Science Corridor, opposite the Blood Bank (RBH) & Lab Med Reception (HH)**

Instructions for inoculation of the bottle is included in the Blood Culture Pack.

**For optimal performance, inoculated blood culture vials should be transported to the lab for incubation as soon as possible after inoculation. Where a delay in transport of the blood cultures direct to the laboratory is expected please store the inoculated blood**



## **A GUIDE TO THE COLLECTION OF SPECIMENS FOR MICROBIOLOGICAL INVESTIGATIONS**



**Use a swab with Amies medium for the following investigations:**

**Nose swabs** If the nose is dry, moisten the swab in sterile saline solution. Insert the swab into the anterior nostrils and direct it up into the tip of the nose and gently rotate. Both nostrils should be swabbed using the same swab to obtain adequate material.

**Throat swabs** Throat swabs from the inflamed areas of the pharynx are most likely to grow the causative organism of acute tonsillo-pharyngitis. Use a tongue depressor to visualise the back of the throat and firmly press the swab onto areas of exudates over the tonsils and posterior pharynx. Avoid touching any anterior parts of the oral cavity to avoid contamination.

**Ear swabs** No antibiotics or other therapeutic agents should have been in the aural region for about three hours prior to sampling the area as this may inhibit the growth of organisms. If there is purulent discharge this should be sampled. For deeper ear swabbing a speculum may be used but experience is required in using this technique to prevent damage to the eardrum.

**Eye swabs** Gently pull the lower lid down or gently part the eyelids and role the swab over the conjunctival sac inside the lower lid.

**Cough Swab** Hold the swab as far back in the throat as possible while the patient coughs. Place swab into the transport medium.

### **MRSA routine screening swabs**

Moisten the swab with sterile water or saline. The sampling should be obtained using a sweeping action over the area whilst also rotating the tip of the swab. Nasal swabs need only to be inserted into the anterior nares and rotated approximately 10 times in each nostril. A single swab should be used to sample both nostrils, a further single swab to sample both groins, a further single swab to sample both axillae and one swab for the throat.

**Where a delay in transport of the swabs direct to the laboratory is expected please store the swabs in a refrigerator.**

**Use a swab with Amies medium and charcoal for the following investigations**



#### **Wound swabs/ Genital swabs**

**N.B. a sample of PUS in a universal container is preferable to a swab of the pus.**

Wound swabs from material at the advancing margin of the lesion is required and if an abscess is present, material from the walls of the abscess should be sampled.

For open lesions / wound / abscesses / burns, sample the exudate from the base or margin of the lesion with a Transwab Amies swab( which will sustain the viability of both aerobic and anaerobic organisms) by firmly applying the swab to it.

Cervical and High Vaginal Swabs must be taken with the aid of a speculum to avoid perineal contamination. For *Trichomonas*, swab the posterior fornix. If there are obvious candida plaques swab the lesions. If pelvic infection, including gonorrhoea, is suspected, swab the cervical os rotating it several times. For male urethral swabs use a fine wire swab and insert into the urethra and rotate several times.

For suspected genital Chlamydia infection please call the virology lab on extension 88449 before taking any specimens. From females take an endocervical swab using the Aptima transport media swab (will need to be collected from the lab) for males take a first-catch urine sample( after not urinating for at least an hour). **Send the above samples directly** to the laboratory. **Please indicate the exact anatomical site of the swab.**

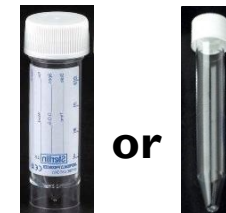
**Use an ultrafine twisted wire pernasal swab with Amies medium and charcoal for the following investigation**



#### **Pernasal swabs (available from Microbiology Dept.)**

For whooping cough (Pertussis) culture, send a fine wire charcoal pernasal swab. Gently pass the swab along the base of the nostril into the nasopharynx, rotate and remove. **Send directly** to the laboratory. Please inform the laboratory to expect delivery. **We can also detect B. pertussis on the respiratory virus PCR**

**Use a 30ml sterile universal or a sterile conical base tube for the following investigations**



**Broncho-alveolar lavage / Nasopharyngeal aspirate / endotracheal aspirate specimens (send directly to the lab)** Broncho-alveolar lavage (BAL) needs to be obtained following the local standard operating procedure for obtaining a BAL, and observing universal safety precautions whilst wearing appropriate personal protective equipment. A nasopharyngeal aspirate (NPA or an endotracheal aspirate (ET)) is usually required for the diagnosis of viral infections including influenza, parainfluenza and respiratory syncytial virus (RSV) etc. The staff member taking the sample must observe universal safety precautions and wear appropriate personal protective equipment and follow the local standard operating procedure for obtaining an NPA/ET.

**Use a DERMAPAK® for the following investigations**



#### **Skin, hair, nails samples for Dermatophyte / Fungal Culture (available from the Microbiology Dept.)**

Special containers (Dermapak) may be obtained from the microbiology department. Samples of infected hair should be removed by plucking the hair with forceps or gloves. The root of the hair is infected and is required for culture not the shaft. Samples of the whole thickness of the nail or deep scrapings should be obtained. The skin should be cleaned with an alcohol swab. Epidermal scales scraped from the active edge of a lesion or the roof of any vesicle should be obtained.

## Use a 30ml sterile universal for the following investigations



### Pus /tissue / biopsies and fluids

Pus is best collected by needle aspiration into a sterile container and where possible a portion of the abscess wall should be included. Aspirated material will always give superior results to a swab.

Tissue /Biopsy specimens for microbiology should be placed in plain sterile universal containers without formalin. If the specimen is small it should be placed in sterile isotonic saline solution to prevent drying. Specimens from different sites **MUST** be clearly differentiated and labelled.

Fluids from body cavities should be aspirated using aseptic procedures and placed in a plain sterile universal container. **Send all the above samples directly** to the laboratory.

### Cerebrospinal fluid (CSF) samples

For microbiology investigations (bacteria, viruses and fungi) CSF should be obtained according to local standard operating procedure using aseptic techniques. Collect the CSF into three sterile screw-capped universals labelled 1, 2 and 3 in order of collection (3 being the last sample collected). At least 1-2ml per bottle is required. Send a separate aliquot of sample 2 of the CSF to the Biochemistry lab for protein analysis and also send them 0.5ml in a fluoride tube for CSF glucose.

Call the microbiology lab (during routine hours) or the on-call Microbiology Biomedical Scientist (out of hours) to inform them that a CSF sample is expected and arrange for direct urgent delivery to the laboratory.

### Tips and lines

Line infection is confirmed by semi-quantitative culture of a removed line. After removing a possibly infected line from a patient, cut a 4 cm (approx.) of the intravascular portion using sterile scissors and place it in a sterile universal container. If infection in a long line is suspected, send the intravascular portion directly adjacent to the exit site and the tip in separate universal containers.

### Pacemakers and Leads

A suitably sized **sterile** container needs to be used with a securely fitting lid. Larger sterile Universal container are available to order from the NHS Supply Chain Catalogue.

## Use a virology transport swab with liquid viral medium for the following investigations including COVID-19 PCR

Available from Blood Science Corridor, opposite the Blood Bank (RBH) & Lab Med Reception (HH)

### Respiratory Virus PCR

Broncho-alveolar lavage/ Nasopharyngeal aspirates / Endotracheal aspirates / Nose -throat swabs may be taken and placed inside the green-capped virology transport tubes. Send to the laboratory immediately.

**Send the above samples directly** to the laboratory.



## Use a virus dacron swab with viral transport medium for the following investigation

Available from Microbiology (RBH) & Lab Med Reception (HH)

### Viral lesion PCR

For viral investigation of pustules / vesicular lesions rotate a virology transport swab to soak up fluid from a lesion and rub it against the floor of the lesion to collect some basal cells. Placed inside the red-capped virology transport tubes and send to laboratory immediately.

**Please indicate the exact anatomical site of the swab. Send the swab directly** to the laboratory.



## Use the dry swab provided and SAMBA II buffer medium for rapid COVID-19 PCR SAMBA II test.

Available from Microbiology (RBH) & Lab Med Reception (HH)

**Send the above samples directly** to the laboratory.



**Use a 30ml or 60 ml  
sterile universal for the  
following investigations**



**N.B Please note if direct transport of urine samples to the lab is not carried out then please ensure the urine sample is refrigerated.**

#### **Mid-Stream Urines (MSU)**

For males, retract the foreskin, if present, and clean the surrounding urethral meatus. The patient commences micturition, the initial urine being allowed to pass into a bed pan or toilet. Using the sterile universal container provided, catch the mid-portion of the urine flow.

For females, if the perineum is soiled clean with warm water without soap. The labia should be held apart and the middle portion of the urine stream collected into the sterile universal container provided.

#### **Catheter specimens (CSU)**

Catheter specimens should be obtained aseptically with a sterile syringe and needle following disinfection of the catheter specimen port with an alcohol wipe. Clamp tubing below the sampling cuff and clean the sampling cuff with an alcohol wipe. Aspirate the urine using a syringe and transfer to a sterile universal container and then unclamp the tubing.

**For the investigation of mycobacteria in urine-** send 3 early morning urine specimens (when the urine is at its most concentrated) taken on 3 consecutive days, for which large EMU universal pots are available.

**For the investigation of schistosomiasis in urine-** send the last 10-20ml of urine passed, a terminal urine. Peak egg secretion of *Schistosoma haematobium* occurs between 12 noon and 3pm. In patients with haematuria, eggs may be found trapped in the blood and mucus in the terminal portion of the urine specimen.

**Use a 30ml or 60 ml  
sterile universal for the  
following investigations**



#### **Sputum (for Culture & Sensitivity (C&S)**

A fresh specimen of purulent or mucopurulent sputum should be collected into a 60ml wide mouth sterile universal container. Mucoid or salivary specimens will only be accepted by the lab for culture on immunocompromised patients. Whenever possible, specimens should be collected prior to the administration of antibiotics. Please include relevant clinical details and anticipated antibiotic therapy in the request information. Where a delay in transport of the sputum specimen direct to the laboratory is expected please store the specimen in a refrigerator.

#### **Sputum (for AFB investigation)**

Collect an early morning deep cough sputum sample into a separate wide-mouthed universal container on 3 consecutive mornings. Ensure each pot is tightly sealed and clearly labelled

**Use a sterile universal container with  
an attached scoop for the following  
investigations**



#### **Faeces / Stool samples**

Collect a fresh stool sample into a disposable container and use the scoop attached to the inside of the lid of the blue specimen container to place the faecal material into the pot. If mucus, blood or pus is present in the stool include portions of these in the sample taken. Try to fill the pot about a third of the way up.

Ensure each pot is tightly sealed and clearly labelled with the patient name, date of birth and hospital number and the sample type and date. Please also include relevant clinical details including symptoms, potential risk factor exposure and travel history information. Where a delay in transport of the stool specimen direct to the laboratory is expected please store the specimen in a fridge.