2 User Instructions

2.6 Special Requirements for Microbiology Investigations

Catheter tips - CVP and Intravenous Feeding lines

After aseptic removal of a central, venous or feeding line, use sterile scissors to cut off the tip (approx. 25mm) into a sterile 60ml (sputum) container. State the type of line and point of entry on the lab request.

Urethral catheter tips will **not** be cultured.

Conjunctival (Eye) Swab

1. Soak swab thoroughly in exudate and place in Amie's transport media.
2. Indicate on the form if ophthalmia neonatorum is suspected.
3. If Chlamydial infection is suspected, use a Chlamydia sampling kit to collect cellular material from the conjunctival surfaces.

Enterobius (Thread worm ova)

Enterobius vermicularis is a nematode referred to as human pinworm, or threadworm. Enterobiasis is frequently asymptomatic, but the most common symptom is perianal pruritus (anal itching). The recommended specimen for Threadworm/Pinworm is a perianal swab. The swab should be moistened in saline and rubbed around (but not inside) the anus. The swab should then be sent to the laboratory in a universal containing a small amount (~5ml) of sterile saline.

Faeces

1. Give details of any recent antibiotic therapy, recent travel abroad, and presence of colitis.
2. *Salmonella, Shigella, Campylobacter, Cryptosporidium, Giardia* and STEC (including *E. coli*O157) are routinely checked. If the patient has had foreign travel outside of Europe / North America, *Vibrio cholerae* may also be checked
3. *Clostridioides difficile* antigen (GDH) is tested for on all diarrhoeal specimens from patients >65 yrs. Consider requesting *C. Difficile* testing in patients with diarrhoea associated with colitis or antibiotic therapy. Children under 2 years of age will not be tested for *C. Difficile.*
4. Examination for ova, cysts and parasites must be specifically requested with specific clinical details (steatorrhoea, eosinophilia, weight loss, immunocompromised, approval from Medical Microbiologist in chronic cases). 3 separate specimens from 3 separate days should be provided.
5. Examination for viruses must also be specifically requested. Children under 5 years of age with diarrhoeal stool will be tested for rotavirus and adenovirus.

Fluids (ascitic, joint, pericardial, pleural etc)
Phone the laboratory if urgent and results of microscopy will influence patient management.

Fungal investigations
Skin scraping, nail clippings and hair should be sent in a sterile 60 ml (sputum) container. This investigation takes 3-4 weeks. A preliminary microscopy result will normally be available within 1 week. If deep seated fungal infection is suspected exudates, biopsies, CSF and serology will also be accepted and referred if necessary to the appropriate laboratory.

Genital Tract
1. For the isolation of *N. gonorrhoeae* cervical and urethral swabs should be collected (plus rectal and pharyngeal swabs when indicated). Vaginal swabs (Candida, Trichomonas, Bacterial vaginosis) are useless for the investigation of gonorrhoea.
2. Material for bacterial culture should be placed in Amie's transport media. Chlamydia kits and viral transport media are available on request.
3. GC PCR is available using Chlamydia collection swabs.

MRSA
State in the clinical details if a patient is known to have had MRSA previously and tick the MRSA request box on the form. The lab will then carry out additional tests to check for MRSA at the same time as routine culture.

Mycobacterial Investigations
Notify the Hospital specific Infection Prevention and Control of Team and the Consultant in Communicable Disease Control (CCDC) about all cases of suspected TB admitted to hospital. See also the Trust TB Control Plan on the Intranet.
Microscopy and culture for mycobacteria is carried out at the Health Protection Agency Regional Reference Centre in Newcastle.
Positive microscopy and culture results are always communicated to the relevant person as soon as they become available. Mycobacteria grow very slowly and complete culture results may not be available for 2-8 weeks; sensitivity results take another 2 weeks.
Specimens for Mycobacterial investigations
- 3 consecutive early morning sputum samples (or gastric washings if sputum is not obtainable).
- When renal or miliary TB is suspected, three consecutive first morning specimens (EMUs) in sterile NON boric acid containers.
- Pus (when available).
- Tissue biopsy.
- CSF (when indicated).

Naso-Pharyngeal Secretions (NPS)

Send naso-pharyngeal secretions to the lab in a clearly labelled, sterile plastic universal container. Routine culture for bacterial pathogens is carried out on site on request. Rapid antigen detection testing for RSV is also available on site. For other virology investigations, samples will be sent to a referral laboratory.

PCR requests

Send a separate EDTA (Purple top) sample.

PCR tests should be carried out on an unadulterated sample. See the **Investigations** section for details of available PCR tests

- **Chlamydia and GC PCR**
  - Collection kits are available for laboratory detection of *Chlamydia trachomatis and GC* by Nucleic Acid Amplification Tests (NAAT). Separate kits are provided for endocervical, and urine samples. (Boric acid urines are NOT suitable for PCR.) Female swabs may also be used to collect conjunctival samples

- **Respiratory PCR**
  - Virus transport media is available from the Pathology stores
  - The laboratory routinely tests for Influenza A/B and RSV using a rapid PCR method

Sputum

1. Send a fresh sample in a sterile 60 ml container.
   Physiotherapy may be necessary to produce a good specimen.
2. Tell the laboratory if the patient has bronchiectasis, cystic fibrosis, legionellosis or if fungal infection is suspected so that specimens can be cultured appropriately.
3. Non purulent specimens will not normally be cultured unless the patient is being ventilated or is immunocompromised.
4. Pneumocystis carinii tests needs to be specifically requested.

SWABS (including Pus and Tissue)

1. Send pus or tissue in a sterile container whenever possible; these are infinitely preferable to swabs for bacterial culture and essential for the diagnosis of Actinomycosis and TB. Swabs containing Amie's transport media should be used for general bacterial culture investigations.
2. The nature of the specimen and the exact site from which it has been taken should be indicated on the form along with relevant clinical information and details of any recent surgery.
3. Details of recent/current antibiotic therapy are also vital.
4. Viral transport swabs are available on request if viral culture is required.

Nasal swabs

- Rub one Amie's transport swab firmly over the wall of each nostril.

Throat swab

- Rub the swab firmly over any obvious lesion, the tonsillar area and the pharynx.
- Place in Amie's transport media and send to the laboratory.
  If diphtheria is suspected **you must speak to the Consultant Microbiologist relevant to your Trust or area.**

Urine – Microscopy, Culture and Sensitivities

1. Use a boric acid container (Red top) – FILL TO THE MARK ONLY - DO NOT OVERFILL. Paediatric boric acid sample containers are also available from Pathology Stores.
2. State the nature of specimen - MSU, CSU, Bag urine etc.
3. Give relevant clinical information to assist the investigation e.g. if a vesico - colic fistula is suspected, anaerobic culture will be performed.
4. It is best to collect specimens before starting antibiotics - if the patient has had, or is taking, antibiotics please indicate this on the request form.
5. Urgent microscopy can be performed on telephoned request.
6. Most urine reports are available within 24 hours.
7. Send a urine sample for culture after removal or insertion of a urinary catheter.
8. Urine samples for CMV. **Do not** use a Boric acid container.

Virology examinations

1. Virus transport media is available from the laboratory
2. Saliva tests for Mumps: contact the Health Protection Agency on 0191 516 3333.
3. Give **date of contact/date of onset** of illness. This is vital in order that results can be interpreted and relevant clinical advice given.
4. If no clinical details are given on requests for virology the sender will be informed that the specimen is being stored pending receipt of such information