

Department of Microbiology
Specimen Collection and Transport Policy

Collection of Specimens

The objective of the Microbiology laboratory tests for bacterial infection is to isolate viable organisms therefore proper specimen collection and prompt transport arrangements are required.

The results of the laboratory are limited by the quality of the specimen and the condition on arrival in the laboratory. Errors in specimen collection and transport are the commonest reasons for failure to ascertain cause of infection.

Specimens should be collected from patients with care to minimize the possibility of introducing extraneous or contaminating microorganisms. This precaution is needed to distinguish commensal or 'normal' flora from organisms causing infection. The presence of commensal flora at site of infection will mask the true aetiological agent making isolation more difficult. The list below gives common sites of contamination from specimen sites which are adjacent to body sites having more resident normal flora than others.

Site of Infection	Source of contamination
Middle Ear	External ear canal
Nasal Sinus	Nasopharynx
Lower respiratory tract	Oropharynx
Endometrium	Vagina
Superficial wounds/ Subcutaneous infection	Skin and mucous membranes
Abdominal fistulae	Gastrointestinal tract
Bladder	Urethra and external genitalia

Careful skin antisepsis before collection procedures, such as blood cultures and lumbar punctures will decrease risk of false positive findings from contaminants normally present on the skin.

Specimens should be collected directly from normally sterile sites and body fluids by methods such as needle biopsy or aspiration or surgical biopsy.

If available, infected tissue or infected fluid is preferable to swab as this will contain more material.

Details of specimen collection procedures for all specimen sites can be found under separate headings in the user information. Requirements for specimen containers for collection of blood for Serology and Molecular Virology testing are also detailed here.

Specimens should be collected during the early (acute) phase of an infection and before initiation of antimicrobial therapy. Convalescent specimens are required for some virology tests.

Specimen Transport and Handling

Specimens should be transported to the laboratory as soon as possible. Some microorganisms (e.g. *Neisseria gonorrhoeae*) survive for only a short time outside the body. To minimize the effects of specimen transport delay, swabs are collected into transport medium which prevent drying and minimise bacterial growth during transport. Boric acid containers are provided for urine specimens which also minimize bacterial growth.

Details of swab/ specimen collection containers are available under separate headings in the user information.

In the event of transport being unavailable, generally it is advisable to keep specimens at 4C until transported.

Transport to the Laboratory from RD&E Locations

All Microbiology specimens can be sent to the laboratory using the pneumatic tube system. Please send to location 2900.

This location is in operation during routine opening hours of the laboratory. Out of hours please send specimens to the high throughput laboratory in A2 . These will be collected by portering staff and brought to Microbiology at regular intervals through the evening and night.

If you require specimens to be sent urgently to the On Call technical staff out of hours please contact the on call Biomedical Scientist who will advise you on the best way to do this.

Collection from Primary Care

RD&E trust provides transport services to all primary care sites which includes collection and delivery of Pathology specimens. Collection schedules are available from the RD&E transport department.