

Microbiology User Information: CSF

Indications for Laboratory CSF Samples:

Hospital CNS guidelines: [Central Nervous System \(formularywkccgmtw.co.uk\)](http://formularywkccgmtw.co.uk)

Testing for vCJD is Only on advice of National CJD Research & Surveillance Unit: all cases must be discussed with their clinical team on 0131 537 1980 prior to performing the lumbar puncture.

Request form requirements:

Providing adequate clinical details to microbiology request forms is vital for the safety of laboratory staff and ensuring patient tests are correctly interpreted. Please include details of relevant clinical information, current, just finished or intended antibiotic therapy. Always indicate if the patient is immunosuppressed and the clinical differential diagnosis to ensure all appropriate tests are performed.

If examination for Viruses or AAFB (TB) is also required- please indicate.

CSF minimum volume:

0.5-1.0 ml

(For TB testing: 5.0mls)

Time to laboratory:

Specimens should be sent to the laboratory immediately- **Ideally < 2 hours.**

Telephone laboratory once taken. Transport to the laboratory ASAP.

Do NOT send via vacuum tube

The specimen will be processed out of hours if urgent- contact on call Microbiology BMS through hospital switchboard.

For information on transport, including days and times, please see [Pathology Transport Services](#)

Laboratory Testing:

All Microbiology laboratory investigations are based on UK Standards for Microbiology Investigations which can be found [HERE](#). If further advice is required, please contact the laboratory.

Laboratory Turn Around Time (from Date/Time of Receipt in Laboratory):

Microscopy: Available same day

Culture results: Up to 2 days

Viral PCR Results: Within 4 working days

AAFB Culture: Normally up to 42 days, but may take up to nine weeks

Time limit for requesting additional investigations:

24 hours


Adverse factors affecting the interpretation of microscopy and culture results:

- Contamination of the sample at the point of collection
- Time between collection to microscopy and culture should occur within a maximum of 2 hours. Cells disintegrate and a delay may produce a cell count that does not reflect the clinical situation of the patient
- The laboratory will be unable to perform cell counts on clotted samples.

Note: rapid transport to the laboratory is the best way to minimise uncertainty of results

Specimen Collection:

Collect specimens preferably before antimicrobial therapy is started, but this must not be delayed unnecessarily pending lumbar puncture and CSF culture

Collection Containers	Sterile Universal Containers (20ml- white) 
Specimen Type	Cerebrospinal Fluid
	<ul style="list-style-type: none"> • Use aseptic technique. • Follow trust lumbar puncture standard procedure • CSF is normally collected sequentially into three or more separate containers which should be numbered consecutively. • Collection of an additional sample in a container with fluoride for glucose estimation is also recommended, although such tubes should be filled last because they may contain environmental bacteria which might otherwise contaminate samples for culture • Send the first and last specimens to Microbiology and the second specimen for protein, along with the fluoride sample, to Biochemistry. • Ideally a minimum volume of 1mL for each tube 1 and 3 taken for microscopy (in adults) • For Mycobacterium species, at least 10mL where possible. <p>Note: The larger the volume, the greater the cultural yield particularly in relation to <i>M. tuberculosis</i> investigations</p> <ul style="list-style-type: none"> • Do not refrigerate specimen