

Division of Laboratory Medicine

Meningococcal Reference Unit

Meningococcal DNA detection by PCR (including Pneumococcal PCR)

The Meningococcal Reference Unit provides a separate manual that is distributed to all users of the unit, and is also available on <https://www.gov.uk/government/publications/meningococcal-reference-unit-mru-user-manual>

General information

Collection container (including preservatives):

EDTA Blood tube

CE marked leak proof container

Specimen type: EDTA blood, CSF, pleural fluid, DNA extracts

Where a CSF sample is available, this should be sent in addition to an EDTA blood sample

Collection: CE marked leak proof container

Specimen transport: Ambient or refrigerated

Specimen type and transport:

- EDTA blood sample collected on admission should be sent to the Meningococcal Reference Unit (MRU) if PCR confirmation is required. Heparinised, clotted blood, serum or citrated samples can be tested, but EDTA is preferred.
- Whole CSF (i.e. an uncentrifuged specimen) should be sent in small sterile containers such as a sterile 2mL screw capped vial (rather than universal containers).

Minimum volume of sample: Minimum volume of 500µL

Special precautions: Remember to also collect blood cultures and a throat swab for bacteriology and label these clearly for meningococcal investigation.

Laboratory information

Measurement units: Threshold Cycle (CT)

Biological reference units: Not applicable

Turnaround time for provisional result (working days): 1-2 days

Turnaround time to final result (working days): 2 days

Turnaround time:

Negative results and Meningococcal Serogroup B positive results, are typically available within 24 hours of receipt. Samples requiring serogroup confirmation and samples confirmed positive for Pneumococcal are available within 48 hours. Urgent samples may be processed sooner providing the laboratory is notified in advance of receipt

Division of Laboratory Medicine

Meningococcal Reference Unit

Same day (if received by 10.00am)

Results on specimens received up to 10.00am on Monday – Friday are normally available between 4.30pm and 5.00pm on the same day.

Positive results will be telephoned following serogroup confirmation up to 5.30pm, or as soon as possible on the morning of the next working day, when printed reports will also be sent out.

Urgent turnaround times

Arrangements to accept couriered urgent samples for PCR or other investigations must be agreed with the MRU before the samples are sent. Failure to do so may result in the specimen(s) not being tested in a timely fashion

Clinical information

Clinical decision points: Not applicable

Factors known to significantly affect the results: Any specimens for PCR tests should be stored at 4OC and not frozen prior to transport.

The likelihood of a positive result decreases as the interval of sampling after starting antibiotics lengthens. Samples for PCR taken more than 48 hours after commencement of antibiotic therapy are unlikely to give useful results. CSF may remain “positive” for longer periods.

(Last updated February 2019)