

GP GUIDELINES FOR SAMPLE STORAGE

The objective of all pathology investigations is to examine human tissue and fluids in the laboratory that best represents the status found in the living organism. To meet this objective samples collected need to be taken into test specific containers, preserved in appropriate chemicals and stored in optimum conditions.

The following sample storage guidelines are given as general recommendation but may be not be ideal for every test measured. If there are specific concerns about stability the user should contact the laboratory before collecting the sample.

NORMAL WEEK DAY STORAGE

Recommended storage conditions for samples prior to normal courier transport collection are:

- **Biochemistry, Haematology and Immunology** samples should be stored at **room temperatures that do not exceed 25°C**. Do not keep samples near a source of heat or in direct sunlight.
- **Microbiology** samples (urine, sputum, faeces, swabs, etc) can be maintained at ambient temperature for a short time or may be stored in a refrigerator (2-8°C) **but please ensure they are not overlooked when other samples are collected by the courier**.
- QuantiFERON TB Gold (QFT) samples must be collected in four specific QFT tubes, maintained at ambient temperature and returned to the laboratory on the day of collection; do not refrigerate.

NEVER DELAY - ALWAYS DISPATCH SAMPLES WITH THE NEXT AVAILABLE COURIER COLLECTION

OVERNIGHT STORAGE

If delays are unavoidable the following guidelines should be observed as sample integrity can vary. In all cases storage should be no longer than overnight and samples/request forms should show the date the sample was taken.

Biochemistry:

- Store all samples in a refrigerator (2-8°C).
- Blood samples will be unsuitable for Potassium, Total CO₂ and Phosphate analysis.
- Serum folate may increase on storage.

Haematology:

- Malaria screening samples **must not** be stored – arrange urgent transport to the laboratory.
- Store all other specimens in a refrigerator.
- White Blood Cell count will deteriorate with time.
- Coagulation samples should not be stored for more than six hours, and must be transported to the laboratory.

Immunology:

- All serum samples should be stored in a refrigerator (2-8°C).
- Any samples for Flow Cytometry should be stored at ambient temperature if overnight storage is necessary but these samples should be sent to the laboratory on the same day that they are taken if at all possible

Microbiology:

- Microbiology samples should be stored overnight in a fridge (2-8°C), **except** for blood cultures (ideally to meet national guidelines these should be received in the laboratory ≤4hrs after collection) and mycology; these must be maintained at ambient temperature and not be refrigerated.
- QuantiFERON TB Gold samples must not be stored overnight.

Cellular Pathology

- Any tissue samples in formalin pots should be stored at room temperature – do not refrigerate.
- Any fresh fluid samples, e.g., urines, should be refrigerated and sent to the laboratory with the next available courier.
- Post vasectomy samples should be delivered to the laboratory by the patients, in accordance with instructions given to them.
- Cervical screening samples are no longer received by this laboratory.

Additional information:

For more information regarding specimen containers, sample stability and other useful details, please visit our website <https://www.newcastlelaboratories.com/>

Related documents:

Lab-Med-CTG-01 Specimen Reception Guidance