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Labelling samples with the Encompass label

When applying the label on the sample tube, it is important the Encompass label is attached correctly on the tube to prevent any delays in reporting results. Users must ensure the correct label is applied to the correct specimen bottle. When applying the label on the specimen, make sure hands are dry and free from alcohol gel, which can cause smudging on the label. The barcode label should be straight and positioned near the top of the tube. (As a rule of thumb, align the barcode label with the existing label on the bottle).

Users are advised to maintain their Encompass printers daily, which will improve the quality of the label. Any slight imperfections can cause significant delays in analysis of samples and reporting of results. If the printer cannot be fixed, the issue should be reported to Trust IT. Do not continue to use the printer if it is producing poor quality labels.

When ordering inpatient requests in EPIC care, the collection step must be completed once the label has been printed. Any sample that is not collected will be rejected and a repeat sample will be required, along with a **new** requisition.

Preparing Samples for Transport

All EPIC samples must be placed in an Encompass coloured bag and sealed correctly to prevent samples going missing and prevent any leakages if an accident occurs.

When using the bags, users should separate their samples and place their samples in the appropriate Encompass bag. The coloured bags come in 4 different colours

Yellow – Routine Clinical Biochemistry & Haematology

Green – Routine Microbiology

Red – All Urgent requests (**must** also be booked in EPIC as urgent)

Specimens coming from the community should use the orange bags. Requests that are pre-generated before the sample has been taken require the actual sample date and time to be written on a request form and placed in the Encompass bag with the sample. When space permits, the new sample date and time should be handwritten on the Encompass label, being careful not to write too near the barcode, as this could interfere with the analyser reading the code and delay results being reported.

For requests being completed on manual request forms, all specimen primary containers must be placed in the plastic pouch attached to the request form and the integral sealing strip properly closed to contain any spillage and prevent contamination. This:

- Limits all unnecessary hand contact with specimen containers
- Makes it easy to identify a leaking container among a batch

- Prevents a leaking container from contaminating other containers, request forms, and the immediate environment and reduces the risk to staff.

The request form must not be placed in the bag with the specimen and must not be stapled or pinned to the bag. Specimen transport bags are single use only. For large Histopathology samples and 24 hour urine etc., the request form can be attached to the outside of the container.
Samples sent from patients known or clinically suspected of carrying or having active infection caused by Category 3 micro-organisms must have both specimen and request form clearly identified using the “DANGER OF INFECTION” Biohazard label. These samples should be segregated from routine specimens.

Ordering the encompass bags

In the longer term it is envisaged that wards will be able to order their own bags in the same way that they order request forms. However for now bags can be ordered from CAH or DHH laboratory specimen reception.

Turnaround times

For the full repertoire on turnaround times for each test, refer to the laboratory handbook. Please note, quoted targets can be affected by configuration of laboratory services and unplanned analyser downtimes.

- For urgent requests, the lab should have results within 60-90 minutes.
- Ward and urgent GP requests results should be available within 4 hours.
- Normal GP requests and clinic requests should have results available within 24 hours.

Turnaround times are measured from sample being receipted in the lab to results being released. The time taken for samples to reach the laboratory from their source is outside the control of the laboratory. Please ensure the correct bags are used which will help with sample processing.

Storage Prior to Arrival in the Laboratory

Temperature requirements for all samples are available under Laboratory Tests on the Laboratory Handbook.

Microbiology samples, in particular, deteriorate with time. Proper storage and timely transport can minimise deterioration, and it is essential that samples are sent to the laboratory as quickly as possible. The use of swabs containing transport media helps to maintain the viability of organisms whilst preventing overgrowth.

Where transport or processing is delayed, the majority of Microbiology, Biochemistry, Haematology, and Cell Pathology samples should be stored at 2-8^{0}C. However, CSF’s, Blood Cultures, Throat swabs for Neisseria meningitidis and cultures for Neisseria gonorrhoea, should be stored at room temperature (15-25^{0}C) prior to collection and during transport.

Transport within the Hospital

Within the hospital, routine specimens are collected from wards by Portering staff where the pneumatic air tube system is not available. Samples are delivered by porters to the laboratory in leak-proof specimen transport bags labelled with the universal Biohazard symbol.
Pneumatic air tube terminals are located at various points across the CAH site. The following samples must NOT be sent by air tube:

- CSF samples
- Blood Gas samples
- Danger of Infection samples
- Items over 1.5 Kg
- Flammable substances
- Any sharps
- Any Histology samples in formalin or Cytology samples

Samples to be transported “on ice”

For samples requiring transport “on ice” where a ready supply of ice is not available the following procedure is used:
Contact the Laboratory Reception and request a “cool transport container”. The container will be available for collection from sample reception within 5 minutes and must be collected promptly to reduce thawing. The container should only be requested when the sample is ready to be taken. Place the sample into one of the two sample positions in the container and replace container lid. Send the full transport container to laboratory immediately along with the fully completed request form in a leak-proof specimen transport bag. If for any reason the cool container is not used it must be returned to the laboratory as soon as possible for re-use.

Samples on ice must be bagged separately and delivered to the lab by the porter. These samples should be directly handed to a staff member to ensure samples are processed correctly.

Transport of CSF samples

All CSF samples including those for BHSCT must be sent via the laboratory. Samples that need to go to BHSCT should be bagged separately from any sample requests that need to be performed in-house, to prevent any in-house test going to BHSCT by mistake.
Sample transport to BHSCT or to CAH from DHH will be organised by Lab staff for these samples.
In DHH the CSF sample must be recorded on the CSF receipt record and countersigned by lab staff as evidence of receipt.

CSF Protein and Glucose analysis is available 24/7. Samples will be transported from DHH to CAH as quickly as possible either by routine transport or taxi if transport not due.

CSF Xanthochromia analysis is performed in the CAH laboratory. All samples arriving in the CAH laboratory after 4pm for Xanthochromia will be performed the following morning. Samples arriving out of hours in DHH will be transported to CAH on the next available transport.

Transporting dynamic functioning tests

When sending DFT samples to the laboratory, all samples must be bagged together. Do not send samples separately, as this can cause issues in the way results are reported.

Transport from outlying hospitals, GP surgeries, clinics and health centres

A transport service van is used to collect specimens from outlying hospitals, GP surgeries, clinics and health centres. Specimens must be packed in such a way that they will not break, be punctured or leak in normal circumstances. For quick collection, so drivers can meet their other collection points in time and to prevent samples being missed/misplaced, each facility must have their collection ready and placed at their designated collection area.
Samples are transported in Specimen Transport Boxes which comply with UN3373 requirements:

- Transport boxes must be constructed of a smooth impervious material with tightly fitting lids that fasten and will not leak.
- Transport boxes are easily cleaned and disinfected; containers are cleaned and disinfected weekly and when contaminated.
- Boxes must not be overfilled or used for any other purpose than carrying specimens.
- Box lids must be secured and the box transported upright.
- Boxes are labelled as containing ‘Biological Material (Category B)’ and display the laboratory’s address and telephone number to be contacted in the event of being found unattended.

Specialised sample handling by Microbiology BMS staff

Under exceptional circumstances, where Biohazard Group 4 pathogens e.g. viral haemorrhagic fever, are known or suspected, BMS staff may be required to visit wards in order to transport samples to the laboratory.
Prepared specimens are placed within a red-topped Bio Bottle, which is then placed

inside a Specimen Transport Box. Contact the Microbiology Laboratory for advice or to arrange transport before sending any samples to the laboratory.

Leaks and Spills

The risk of breakage or leakage of chemical or other material is extremely small if the samples are packaged correctly and placed in secure transport boxes. Samples should not be forwarded where a leakage is known to have taken place. It is the responsibility of the clinical staff dealing with the patient to address any leakage of this kind. For details refer to the Trust's Decontamination Procedure in the **Infection Control Manual**.
Any leaks occurring during transportation should be contained within the secondary container, in which case, proceed to the laboratory and inform staff when handing over the specimens.
Health and Safety guidelines state that leaking samples should be discarded. In this event the requesting source will be contacted as soon as possible. If the specimen cannot be repeated, or is of particular importance, an attempt will be made to find a safe means to salvage and process the sample.
Any incident during transportation that may affect the quality of the specimen or the safety of personnel must be brought to the attention of the Lead BMS, who will investigate and issue instructions on further processing of samples.

Spills within the hospital:
In the event of a spillage of any kind, Portering staff should not attempt to clean it up. Spills may release formaldehyde which can be identified by its pungent odour; in this case ventilation is particularly important.

- Ventilate the area
- Put a "Wet Floor" sign at the spillage
- Contact the laboratory reception staff for advice
- Inform Ward/Department of incident
- Report it to their line manager/Supervisor or Site/Bed Manager
- Supervisor/Manager to complete Datix

Pneumatic Tube System:
Where leakage has spread beyond the bag then the entire contents of the pod will be discarded as clinical waste, assuming that it contains no specimens that cannot be repeated.
Where leakage has occurred beyond the pod then Estate Services must be contacted and suitable decontamination of the tube system initiated. For details, refer to Trust's decontamination procedure in the **Infection Control Manual**

Spills in Transport Van:

Spills may release formaldehyde which can be identified by its pungent odour:

- Ventilate the area
- Contact Laboratory for advice

If there is no reason to suspect formaldehyde you should use the spill kit as directed, proceed to the laboratory, and inform staff when handing over the specimens.