POLICY FOR THE TRANSPORT OF PATHOLOGY SPECIMENS

1 POLICY STATEMENT

Safe and efficient transport of specimens is essential to preserve the integrity of the specimen and to ensure it arrives at the laboratory in a condition suitable for accurate and reliable testing.

All Pathology samples by definition should be considered as potentially infectious and as such procedures must be followed to ensure that all staff are exposed to minimum risk when transporting samples to or from the laboratory.

2 SCOPE

This policy applies to all staff working in Pathology plus all other members of the clinical team that will be involved in sample handling including porters, couriers and drivers.

3. PURPOSE

This policy will ensure samples are delivered safely and efficiently to the relevant laboratories. It will also ensure that any samples sent off site are packaged and transported according to the current and most relevant legislation.

Failure to adhere to this policy could expose anyone to infection and the Trust to prosecution or litigation as all staff have a duty of care to ensure samples are transported correctly.

4 DEFINITIONS

N/A

5 RESPONSIBILITY

It is the responsibility of all members of staff to adhere to this policy.

6. PROCEDURE

All specimens must be transported in a timely manner such that it preserves the integrity of the sample and allows for rapid testing in urgent situations. The appropriate time frame for requested examinations will vary depending up on the nature of the specimen, the clinical details of the patient and the operational hours of the department concerned. The priority for testing will be decided by the receiving laboratory therefore it is imperative that all samples are transported to the laboratory as soon as possible.

All specimens must be contained in a leak proof specimen container appropriate to the test requested. The specimen container must NOT be contaminated on the outside and must be easily identified and appropriately labelled in order to process the sample effectively and safely.

Leaking specimens cause a health hazard to everyone who comes into contact with them, patients, visitors and health care workers, either through infectious material escaping or hazardous fixatives such as formalin. It is imperative, therefore, that specimen containers are sealed and placed in specimen bags correctly. Processing times will be increased when the laboratories receive leaking specimens, the specimen may be deemed unsuitable and / or the validity of the results may be affected. For action in the case of a leaking sample see the section on ‘spillages’.

The specimen must be placed in an individual transparent plastic transport bag, which must be sealed. The request form is usually attached to the transport bag, but where this is not possible the form must be placed in a separate pocket, or transported separately; the bag must never be stapled. Request forms must never be placed in direct contact with the specimen.

On-site Transport

Within the hospital environment it is preferable to use the pneumatic air-tube system (the Whooshy), although this must NEVER be used for CSFs, histology or blood gas samples. Samples must be protected with additional packaging when placed in the air tube pods, the lids must be firmly secured and the pods must not be overfilled. The maximum weight permissible to be placed in a single pod is 500g, this is equivalent to 500mls of fluid.

Specimens that cannot be placed in the air tube system are transported to Pathology in a manner designed to contain any spillage i.e. boxes or deep sided trays from wards, and purpose built enclosed trolley with deep tray from theatres. Phlebotomists carry samples from the ward areas within their trolleys, which are disinfected regularly. Single specimens can be transported in sealed plastic bags.

Samples can be delivered in person or via the portering system direct to the Blood Issue Room. There are labelled boxes in the Blood Issue Room for routine samples. Urgent samples should be place in the "urgent" box and the bell rung to alert the laboratory staff.

Histology/Cytology Reception Level 4

During routine working hours the theatre porters routinely deliver three times daily direct to level 4, 08.30, 12.30, and 16.40. Specimens from theatres, DSU and New Hall are delivered to level 4 and signed for by laboratory staff. It is important to ensure large specimens are received on the day of operation to allow ‘opening’ by the Pathologist and optimal fixation.

Out of hours samples may occasionally be taken to the unmanned pathology reception area on level 3 (Blood Issue Room).

URGENT SPECIMENS

Laboratory Medicine Samples

Urgent samples should be place in the “urgent “ box in the Blood Issue Room and the bell rung to alert the laboratory staff. It is advisable to telephone the lab in advance if sending urgent samples.

Where crossmatching is urgently required the laboratory MUST be informed **at all times.**

Bone Marrow Slides

Following a bone marrow aspiration the spread slides should be placed on a slide tray. The slide tray must be placed in a lidded box for transport to the laboratory and staff alerted when leaving these specimens.

Microbiology Samples

Urgent specimens can be sent using the pneumatic air tube system if suitable, but CSF samples must not be sent in this way. Urgent samples can be delivered to Laboratory Medicine reception on Level 3 or out of hours left in the ‘urgent’ box in the blood issue room. When sending urgent samples the laboratory must be informed by telephone on ext. 4099 Mon – Fri 9 am to 5.30 pm, out of hours the on-call microbiology BMS must be contacted – via switchboard. NEVER send urgent samples without informing a member of the microbiology staff.

Histology Samples

- Specimens that are for frozen sections should be delivered to the histology reception area on level 4 by the theatre porters and handed to laboratory staff.
- Specimens for OSNA (One Step Nucleic Acid Amplification) are collected from theatres by laboratory staff. These must be kept ‘on ice’ and transferred to laboratory in less than 15 minutes from collection.
- Urgent specimens must be marked as such with clinical details and date required by.

THE HOSPITAL COURIERS

The hospital couriers collect samples from external clinics, other outlying hospitals and GP surgeries. Samples are transported in UN3373 approved carriers that are secure and leak proof with lids that can be closed and sealed. The boxes carry a warning label and are lined with absorbent material to absorb any leakage. Samples are delivered to Laboratory Medicine on Level 3.

There are ten SNHSFT transport deliveries each day and these arrive between approximately 11.00am and 19.00pm. When the specimens arrive they are sorted into their respective Pathology department trays. This area is checked regularly throughout the day to ensure all samples are accounted for in case any courier is running late. Staff in Microbiology and Cellular Pathology combine to check the area regularly for specimens.

POSTAL SAMPLES

The majority of postal samples are received in to the laboratory via the Pathology laboratory office, where they are sorted and placed in the appropriate pigeon hole. Any sample packages are collected by each individual laboratory staff as and when they visit the Pathology office, or delivered by the office staff directly to the laboratory. Samples must not be opened in the Pathology office and must only be opened in the laboratory areas.

There is a daily delivery of samples through Hayes and they are received at the hospital front desk (near switchboard). The Microbiology department is informed and will send a member of staff to collect and distribute. The Hayes delivery system is used primarily by the Microbiology department and occasionally by Genetics.

All samples sent out by post must be packaged according to the current postal regulations.

Instructions For Sending Samples Through The Mail Or By Courier

Specimens may be sent directly to Pathology using private couriers or the postal system and must comply with the UN Model Regulations for the Transport of Dangerous Goods issued by the Department for Transport (DfT). Clinical specimens for diagnostic purposes are classified as UN3373 – Biological Substance Category B.

Further details can be obtained from:
http://www.hse.gov.uk/biosafety/blood-borne-viruses/transportation-of-infectious-substances.htm

PACKAGING

1. The packaging shall consist of at least 3 components:
   a a primary receptacle
   b a secondary packaging
   c an outer packaging
2. The primary receptacle must be leak proof (liquids) or sift proof (solids). It must not contain more than 1 litre.
3. The primary receptacle must be packed into secondary packaging to ensure that they cannot break or leak their contents, absorbant material should be present in the container to absorb any possible leaking material. The secondary packaging must also be leak proof and/or sift proof.

4. The secondary packaging must be secured in an outer package that must be rigid and capable of successfully passing a drop test at a height of 1.2m. At least one surface to the outer package must have a minimum dimension of 100 mm x 100 mm.
5. The UN3373 diamond must be clearly visible and legible on the external surface of the outer packaging. The shipping name “BIOLOGICAL SUBSTANCE CATEGORY B” must be adjacent to the diamond.
6. If ice is used the outside packaging or over pack must be leak proof. If dry ice (solid carbon dioxide) is used the packaging shall be designed to permit the release of gas and prevent the build-up of pressure and must be marked ”Carbon dioxide, solid” or “Dry ice”.
7. The package must be clearly labelled with the name and address of the recipient and the sender.
8. First Class or Data post must be used if sending through the mail.

Other previously used shipping names such as Diagnostic Specimens or Clinical Specimens is still permitted, but should be discontinued where possible.

PATHOLOGY COURIER

The laboratory porter or occasionally a courier company, may be used for the dispatch of urgent or ‘special’ delivery of samples to other hospitals. Samples must be packaged and transported in UN3373 approved containers as above.

PARCEL OR NON-HOSPITAL COURIER DELIVERIES

Samples may be received throughout the day if they have been sent by another hospital using their own courier, a private courier service or a parcel delivery service. These will be received by the Pathology office staff who will place them in the appropriate pigeon holes, the same as the postal samples. If the samples are marked urgent the Pathology office staff will telephone the respective departments to alert them that an urgent sample has arrived prior to placing the parcel in the pigeon hole.

SPILLAGES

Leaking or broken samples must only be handled by a person with sufficient knowledge and competencies to deal with them safely. Staff not aware of the correct procedure to follow must make sure the sample is not tampered with and the area is safe whilst they contact a senior member of the laboratory staff immediately. Likewise spillages whether small or large, biological, chemical or both must only be handled by a trained and competent member of the laboratory staff.

Leaking Samples

Minor leaks will be safely contained in the transport bag. The patient and sample details must be noted and the sample disposed of immediately without opening the bag. The incident must be recorded via the laboratories non-conforming work procedure and / or by entering the incident onto the Trust adverse event system

Datix and the sender informed straight away. If the clinical needs of the patient indicate that the sample may require processing the bag must only be opened in a safe laboratory area by a person fully trained in the correct handling of pathological specimens. Protective personal equipment must be worn at all times and where necessary other safety equipment must be used as appropriate. A senior member of the laboratory staff must be informed and make a judgement on the final fate of the sample, this decision may require further clinical advice.

Spillages

If the spillage is contained within a transport box, close the lid and take the box to the appropriate laboratory area. For Microbiology and Laboratory Medicine the box must be taken direct to specimen reception so that a member of the laboratory staff can deal with the spillage. For Histology samples take to Histology reception on level 4 (during normal working hours) and ring the bell, wait for a member of the laboratory staff who will deal with the spillage. The incident must be entered onto Datix at this time by laboratory personnel.

If the spillage is not contained isolate the area where possible, this may necessitate requesting colleagues to stand guard in order to prevent patients, visitors or other members of staff from contamination. Cone off the area and assess the spillage:

- If the spillage involves sharps or infected waste seek advice from the Infection Control Team if appropriate.
- If the spillage involves chemicals e.g. Histology sample in fixative, 24 hour urine with acid preservative, seek advice from the laboratory by telephoning extension 4096 (Histology) or 4033 (Laboraotry Medicine) and wait for laboratory staff who will deal with the spillage. Couriers will be given advice by telephone on how best to proceed.
- If the sample is a clinical sample it can be dealt with according to the Trust Waste Management Policy (*Policies, 1. Business and Provision of Services*) Appendix G Waste Handling Emergency Procedure.

Minor Clinical Waste Spillage

Protective disposable or household gloves and a plastic apron shall be worn before the spillage is handled. Check that there are no "sharp" pieces in the waste i.e. broken glass. Do not attempt to pick up sharps with bare hands, sharps should be picked up with the use of forceps or dustpan and brush. Dispose of into a sharps bin.

Place 7 NADCC (Actichlor 2.5 g strength) tablets into a jug to make a solution of 10,000 ppm available chlorine and add tap water up to 1 litre and allow tablets to dissolve fully for approximately 3 minutes.

NB: Always use NaDCC disinfectant in well ventilated areas - not in confined spaces.

Cover spillage with paper towels, and pour disinfectant solution from jug onto paper, allowing adequate time to soak up the spillage. With gloved hands, scoop paper towels into a yellow plastic bag. Mop up any remaining spillage with disposable paper towels. Place the used paper towels into the orange / yellow bag.

Discard unused disinfectant into drain, sluice, toilet or sink. Wash out jug and wipe dry with paper towel. Discard towels into the same orange / yellow bag, with the discarded gloves. Seal the bag with tape and put out for collection in appropriate place for incineration. Always wash your hands after sealing the yellow bag.

The incident must be reported to Datix at this time by the most senior person dealing with the spill. Incident reporting is not only necessary to improve our service but to protect ALL staff from potential hazards.

If a "sharps" injury does occur the following steps must be taken:

- Do not suck the wound.
- Encourage bleeding under running water.
- Wash the wound with soap and water but do not scrub.
- Apply a waterproof dressing after drying.
- Retain and secure the sharp item for investigation.
- Inform the person in charge.
- Locate the Needlestick Action Pack (NAP box) and follow instructions.
- Inform the Occupational Health and Safety Services department.
- Report the injury on Datix.

Prophylactic treatment (prevention of disease) may be necessary within the first hour of the injury. Do not delay in informing the Occupational Health department. If out of hours contact the A & E department.

<u>Spillage Or Leakage Within The Air Tube System</u>

If there is any sign that there may have been a leak the carrier must be opened with care in a safety cabinet. PPE such as gloves and goggles must be worn. The spillage must be reported via Datix and the Laboratory Manager must be informed.

The carrier must be fully cleaned and decontaminated before being put back into use. If the carrier is badly damaged or contaminated it must be disposed of as hazardous waste.

If there is evidence of a broken specimen which has resulted in the leakage of a large volume of liquid which may have escaped from the air tube carrier the System Manager or one of the designated contact personnel (see Trust Pneumatic Air tube Policy - Appendix 3) must be contacted immediately during working hours. Out of hours the on call Biomedical Scientist must be contacted and they will liaise with ETS to initiate a total shutdown of the system.

After total shutdown it is the responsibility of the System Manager to carry out the following:

- Identify, from the recipient or sender, the type of spillage which has occurred.
- Contact the Infection Control team who must be made aware of all incidents during working hours. Out of hours contact the Duty Clinical Microbiologist.
- Check the central control display to confirm the route of the suspected carrier and any subsequent transactions within that route.
- Contact the company that services and maintains the system by telephoning Quirepace on 02392 601050. Quirepace, along with ETS, will decide if they need to initiate a full decontamination process, this can take up to 5 days and is charged at the rate of £1000 per day.
- Advise persons who may have been in contact with the contamination of the appropriate cleaning and disinfection procedures.

All spillages must be reported to Datix.

7. REFERENCES

- Safe working and the prevention of infection in clinical laboratories and similar facilities, HSE books ISBN 0717625133, 2nd edition 2003.

- Transport of Infectious Substances, Department for Transport, Revision 7, 2012.

- Pneumatic Air Tube Guidance, Salisbury NHS Foundation Trust, Version 2.0, 2024.

- Waste Management Policy, Salisbury NHS Foundation Trust, Version 6.0, 2022.

This policy satisfies:

- ISO15189:2012 standard 5.4.5.
- ISO15189:2022 standard 7.2.5