

Transport of Clinical Specimens

Effective: December 2009

Review: November 2012

1. Introduction

This policy covers the packaging and transport of specimens within and between hospital sites and lists the responsibilities of Ward staff, Messengers and Porters, and Pick-up Point staff. It includes advice on the use of the air-tube system, the Hopper service, couriers and taxis for specimen transport. The guidance covers specimens for each of the laboratories, giving additional detail for urgent samples for Microbiology and high-risk specimens. A flow diagram at Appendix A summarises the procedures in an easy to assimilate form.

2. Packaging and transport within a hospital site

2.1 Confidentiality

- All staff handling clinical specimens are required to maintain patient confidentiality at all times.

2.2 Ward staff responsibilities

- Use correct container for analysis (refer to BD Tube Guide for blood specimens)
- Label the specimen container with:
 - Name
 - Date of birth
 - NHS number/Hospital number
 - Date collected
 - Location
- Fill in the corresponding request form (electronic or hard copy). Consider risk of biohazard – see Section 3 and the Trust policy [Acceptance and Rejection of Samples Quick Reference Guide](#).
- Place specimen container into the plastic specimen bag attached to the request form and seal the bag.
- For electronic requesting, place the specimen in a separate specimen bag. There are designated bags for e Record samples. Other plastic bags must not be used as this can result in specimens being delivered to the wrong department.
Ensure that tubes from only one patient are placed in the bag. Do not place specimens from multiple patients in one bag.
- Note that the Histopathology/Neuropathology request form is separate from the specimen bag. Place the form and specimen in their respective compartments. To avoid contamination **do not** place the form in with the specimen. With larger specimen containers, bag the specimen and then place it with the form in a second bag so they do not get separated.
- Send the sample promptly to the on-site laboratory.

2.3 Messengers and Porters rules and responsibilities

Clinical material is potentially hazardous. These rules minimise the risk to you, other staff, patients and visitors to the Trust. If in doubt, contact your Hospital Infection Control Team – NGH x22795; FRH x31018; RVI x24994.

- Always carry specimens in the carriers provided and deliver them as soon as possible to the relevant laboratory or reception.
- Handle specimen containers as little as possible. Wash your hands afterwards if you do handle them.
- If a specimen is broken or leaking in the carrier, do not remove it. Take it to the Laboratory who will deal with it appropriately.
- If a specimen is dropped and broken in the hospital, do not touch it or allow anyone else to touch it. In a clinical area, contact one of the nursing staff to deal with the specimen. In a non clinical area/corridor, contact the nearest clinical area or Domestic Supervisor. If the specimen contained Formaldehyde contact the Histopathology Laboratory (RVI ext. 24445) to ensure retrieval of the specimen and removal of the Formaldehyde hazard. The Duty Supervising Porter must be informed of any and all spillages/breakages, and he should then inform the originating department.
- After any spillage, wash your hands. Contaminated clothing should be removed and cleaned in accordance with the Trust Laundry Policy as soon as possible. Contact the Infection Control Team if you are unsure of what to do.
- All accidents, spillages etc must be reported to and recorded by your Manager on an incident form. Advice can be provided by the Health & Safety Department.
- Wash your hands frequently while on duty, especially before refreshment breaks and when finishing work.

2.4 Use of the Air Tube System

Correctly packaged specimens should not leak or break within the Air Tube system. However, **NEVER** send the following items/specimens via the air tube:

- | | |
|---|--|
| • Needles | Hazardous to Laboratory staff |
| • Incorrectly packaged or Biohazard specimens | Hazardous to all staff using the system
Decontamination of the system is expensive, difficult and may cause prolonged closure |
| • Specimens not in a carrier | These will break |
| • Specimens for blood gas analyses (Biochemistry) | Result affected |
| • CSF specimens for Xanthochromia (Biochemistry) | Result affected |

In the event of a spillage or breakage in the Air Tube System please contact the site **Estates Department** urgently:

FRH Estates Department Ext 25910 – Trust Fault Line
RVI Estates Department Ext 25910 – Trust Fault Line
NGH Estates Department Ext 22826

Out of hours and at weekends contact the site **Estates Shift Craftsman** on x29201 (RVI), x48804 (FH) or x23775 (NGH), or via Switchboard.

3. Packaging and transport between Newcastle hospital sites

3.1 Microbiology

- Microbiology laboratories are centralised on the FRH site.
- **Routine** samples should be sent via Porter to the on-site laboratory (RVI and NGH) and will be transported to FRH Microbiology by regular courier.
- Samples from the Centre for Life and Walkergate hospital must be sent in the appropriate UN3373 containers by courier or taxi as appropriate.
- **Urgent Microbiology** samples **MUST NOT** be sent to the on-site laboratories. Take or send these to the **designated pick-up point** to be placed in UN3373 containers and sent to FRH by taxi or hopper (see Appendix B)

3.2 All Other Laboratories

During working hours the receiving laboratory is responsible for the safe transport of specimens to other sites once received from wards or clinics.

Out of hours (i.e. at nights, weekends and on bank holidays) Specimens to be sent to another site must be sent via the pick-up points. Incorrectly packaged specimens will not be sent.

Designated Pick-up Points:

- RVI:** Leazes Wing Reception, Ext 25800/24903
NGH: A&E Reception for Microbiology specimens, Ext: 21034
Pathology Reception for other all specimens, Ext: 22781
FH: Freeman Main Reception, Ext: 26740

N.B Taxis for specimens going off-site are ordered by the ward from Pick-up points.

Staff at the pick-up point must be informed of urgent specimens for dispatch to another laboratory or they will not be sent.

If tests are requested from more than one site, then the relevant number of samples must be sent to each SITE.

The Reception staff at pick-up points will maintain a supply of the packaging for safe transport of specimens.

3.3 Ward Staff Responsibilities

- Use correct container for analysis (refer to BD Tube Guide for blood specimens)
- Label the specimen container with:
 - Name
 - Date of birth
 - NHS number/Hospital number
 - Date collected
 - Location
- Fill in the corresponding request form (electronic or hard copy). Consider risk of biohazard – see Section 3. See Trust Policy [Acceptance and Rejection of Samples Quick Reference Guide](#).

- Place the specimen container in the plastic bag attached to the request form and seal the bag.
- For electronic requesting, place the specimen in a separate specimen bag. There are designated bags for e Record samples. Other plastic bags must not be used as this can result in specimens being delivered to the wrong department.
Ensure that tubes from only one patient are placed in the bag. Do not place specimens from multiple patients in one bag.
- The Histopathology/Neuropathology is separate from the bag. Place the form and specimen in their respective compartments. To avoid contamination **do not** place the form in with the specimen. With larger specimen containers, bag the specimen and then place it with the form in a second bag so they do not get separated.
- If for Microbiology – fill in an Urgent Microbiology specimen slip and attach it to the request (see also Appendix B below).
- Send or take the sample to the appropriate **designated Pick-up point** (urgent Microbiology) or on-site laboratory (all other samples) and ensure it is placed in the correct container for transport.

3.4 Pick-up point Staff Responsibilities

Do not send incorrectly packaged or labelled specimens to other sites – instruct the staff member who brings an incorrectly packaged specimen to place it in the UN3373 container (see example below) or place it in the container yourself.

- Supplies of the UN3373 packaging are kept at each Pick-up point and Pick-up point staff are responsible for ensuring that an adequate supply of the packaging is always available.
- Put the bagged specimen into the impervious secondary container
- Write the destination site, originating ward and contact numbers on labels and attach to the outer cardboard container.
- The outer and secondary packaging are reusable and will be returned to the Pick-up points by the receiving laboratories.

3.5 Use of Courier, Hopper or Taxis

3.5.1 Use of the Hospital Courier

Couriers circulate between pathology receptions and pick-up points of the various hospitals, generally between the hours of 0800 – 1800 (Saturday morning to 1pm only).

- Plastic or Aluminium boxes complying with Hazardous Goods By Road Regulations and UN3373 are used. Appropriate specimens, segregated into plastic bags and labelled with the destination, are placed into the boxes.
- Boxes must be secured for transport in the back of a van/boot of a car. Cargo nets or straps as appropriate may be used.
- The boxes will be disinfected weekly by laboratory reception staff.
- Larger boxes complying with the same standards are available for large histopathology samples e.g. anatomical parts.



Blue Transport Box for Histopathology

3.5.2 Use of the Hopper service

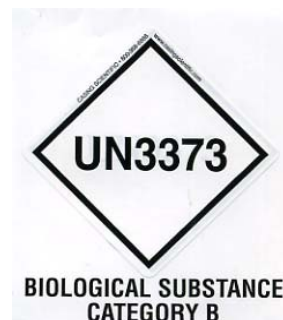
This is **only** to be used for specimen transport when they are **urgent** and the courier service is not operational or is inappropriate.

Hoppers circulate between the FRH, RVI (Leazes/Peacock Hall), NGH and Centre for Life between the hours of 0800 to 1800.

- Specimens must be packed into appropriate UN3373 'triple pack' containers, such as 'Bio-Bottles' or 'Pathopak', at the designated pickup point or Laboratory with the destination, originating ward and contact number on the outside before being taken to the pick-up point.



UN approved 'triple-pack' packaging for diagnostic specimen transport [example]



UN3373 Label

3.5.3 Use of Taxis

Taxis should only be used for transporting urgent specimens if there is no operational courier or hopper. Urgent Microbiology specimens from NGH to FRH, and frozen sections for Histopathology, should always be sent by taxi.

- Specimens must be packaged in appropriate UN3373 transport containers, as for the Hopper (above), with destination, sender's details and contact numbers on the outside, when taken to the pick-up point. Supplies of packaging are available from:
 - RVI Leazes Wing Reception
 - NGH A&E Reception/Pathology Reception
 - FRH Main Reception
- Taxis for specimens going off site are ordered by the ward from the Reception Point.

3.6 In the event of an accident or spillage

- The courier/driver should telephone the contact number on the outside of the specimen transport box or container.
- Inform the Duty Manager of the laboratory concerned, (or On-call Biomedical Scientist if out-of-hours) who will co-ordinate the Laboratory's response in conjunction with the Head of Department.

Biochemistry	Ext 29719 (RVI), 48889 (FRH)
Cytology	Ext 29120
Haematology	Ext 24761 (RVI), 31649 (FRH), 22777 (NGH)
Histopathology	Ext 29120
Immunology	Ext 25295 (office hours – out of hours contact RVI Haematology for advice)
Microbiology	Ext 26291
Neuropathology	Ext 29120

- The laboratory should notify the originating wards of any specimens damaged or destroyed in transit.

4. The transport of high-risk specimens

- Specimens from patients with certain infections are a particular risk to Laboratory staff who process them. Laboratories have special procedures in place to handle these specimens safely. The Laboratory **must** be made aware when a specimen is high risk by labelling **both** the request form, where submitted, and sample container with a biohazard label.
- For electronic requesting, the biohazard label must be placed on the sample and the specimen placed in a separate specimen bag (not alongside other specimens). There are designated bags for e Record samples. Other plastic bags must not be used as this can result in specimens being delivered to the wrong department.
- A supply of biohazard labels should be available in each clinical area (obtain from Trust Supplies, stock printed stationery requisition, item no. NUTH78).



A Biohazard Label

High risk patients include those with the following conditions or infections:

Hepatitis B
 Hepatitis C
 Human Immunodeficiency Virus (HIV, AIDS)
 Transmissible Spongiform Encephalopathies (CJD, vCJD etc)
 Tuberculosis (specimens from the site of infection)
 Typhoid fever

N.B. This is not an exclusive list; the Laboratory or Infection Control Team may request this to be done on patients with other infectious conditions.

- It is not necessary for safety reasons to identify the patient's condition on the request form, although it will aid diagnosis, **except** in the case of known or

suspected Transmissible Spongiform Encephalopathy (TSE, eg CJD/vCJD). These require special handling and disposal procedures in the Laboratory.

- Note that infectious specimens are safe to be transported by Hopper, courier or taxi when correctly packed in the UN approved triple packaging, as for other diagnostic specimens, but in this instance the outer pack must display a UN2814 'Infectious Substance' biohazard label (often pre-printed on the outer box).



*Infectious
Substance Label (UN2814)*

- **The person requesting the test is responsible for following this policy.** Failure to identify specimens from high risk patients in this way will be reported to the Head of the originating Department and Infection Control. Repeated failures will result in a formal complaint.

5. Audit and Monitoring

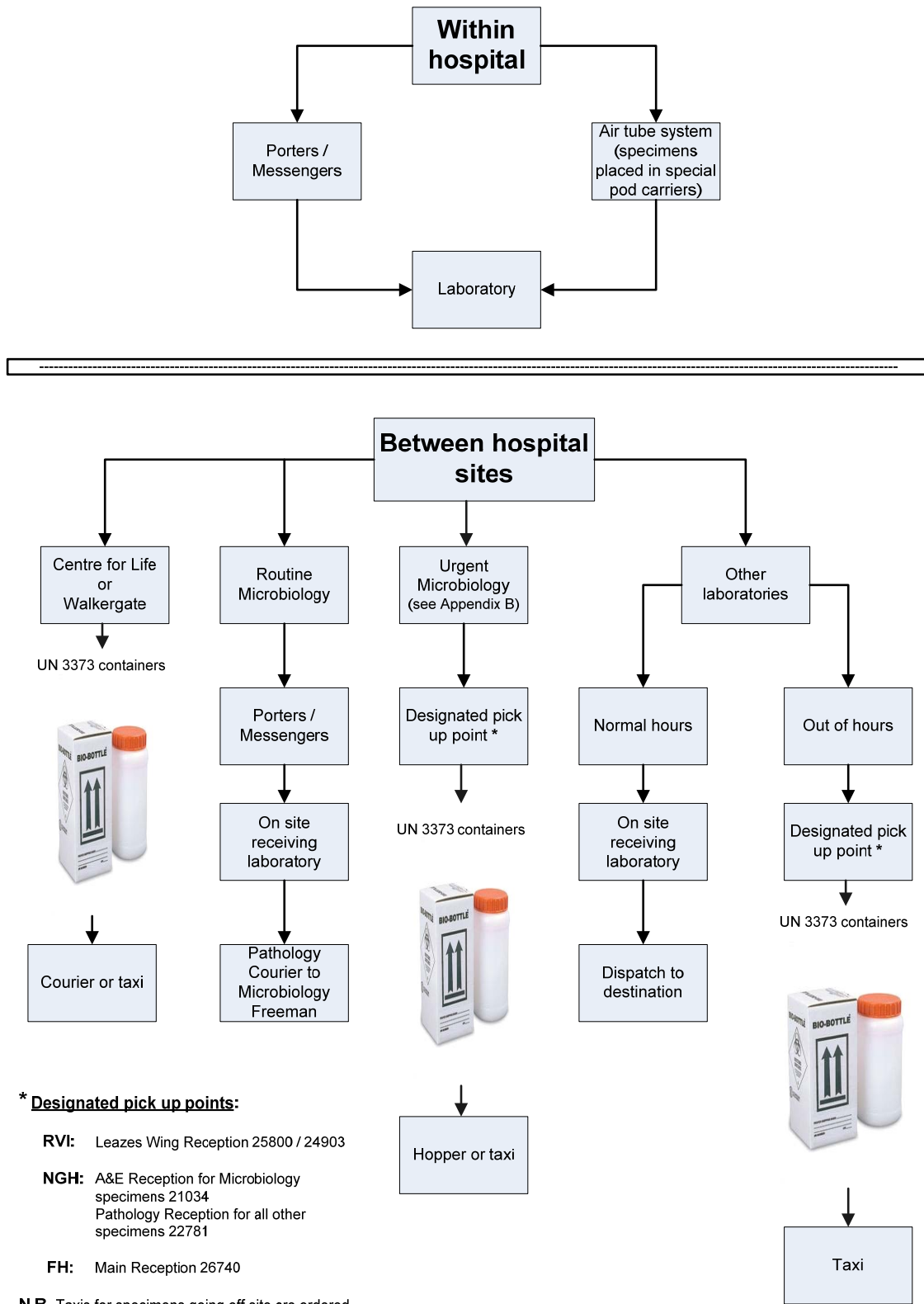
Compliance with the policy will be monitored by quarterly analysis of laboratory non-compliance logs and vertical audit of selected specimens by the Laboratory Medicine Health & Safety Group. Unnecessary or unacceptable delay in the delivery of a specimen to the receiving laboratory will also be monitored by analysis of non-compliance and incident logs. The Laboratory Medicine Health & Safety Group includes a Trust Health & Safety adviser for consultation and audit purposes on those areas of specimen transport not directly managed by Laboratory Medicine. An Infection Control annual staff questionnaire will audit knowledge and understanding of this policy.

6. Further advice and guidance

Staff requiring further advice or guidance should contact the Duty Manager in the relevant laboratory discipline at the contact number listed in paragraph 3.6 above.

Author: Chair, Laboratory Medicine Health & Safety Group

Transport of Clinical Specimens Flow Chart



Urgent Microbiology specimens

- The Ward MUST notify Microbiology by telephone in advance of any urgent specimens (26291/31019 Microbiology or 26545/48890 Serology). Out of hours, all telephone calls must be made via switchboard.
- Where request forms are still used the Ward must complete the request form and clearly mark it 'URGENT'.
- The Ward must complete an 'Urgent Microbiology Specimens' slip and attach it to the specimen request form.
- The Ward must ensure the specimen is correctly packaged and sent via the designated Pick-up points by taxi (NGH) or Hopper/Taxi (RVI) to the correct destination. Supplies of UN3373 packaging are available at the designated Pick-up points.
- Microbiology will return the packaging and containers to the designated Pick-up points.

References

- Trust [Sample Acceptance & Rejection Quick Reference Guide](#) (See Intranet – Policies, Procedures & Clinical Guidelines)
- HSE guidance [Infectious Substances, Clinical Waste & Diagnostic Specimens](#)
- HSE guidance [Carriage of dangerous goods](#)
- HSAC guidance 'Safe working and the prevention of infection in clinical laboratories and similar facilities', HSE Books 2003.
- Clinical Pathology Accreditation – [Standards for the Medical Laboratory](#) (refer to Standard E4 Specimen transportation)

THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST
IMPACT ASSESSMENT – SCREENING FORM A

This form must be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Policy Title:	Transport of Clinical Specimens	Policy Author:	
		Yes/No?	You must provide evidence to support your response:
1.	Does the policy/guidance affect one group less or more favourably than another on the basis of:		
	• Race	No	
	• Ethnic origins (including gypsies and travellers)	No	
	• Nationality	No	
	• Gender	No	
	• Culture	No	
	• Religion or belief	No	
	• Sexual orientation including lesbian, gay and bisexual people	No	
	• Age	No	
	• Disability – learning difficulties, physical disability, sensory impairment and mental health problems.	No	
2.	Is there any evidence that some groups are affected differently?	No	
3.	If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?	N/A	
4(a).	Is the impact of the policy/guidance likely to be negative? <i>(If "yes", please answer sections 4(b) to 4(d)).</i>	N/A	
4(b).	If so can the impact be avoided?	N/A	
4(c).	What alternatives are there to achieving the policy/guidance without the impact?	N/A	
4(d)	Can we reduce the impact by taking different action?	N/A	

Comments: This policy does not discriminate in any way on the basis of race, ethnicity, gender, nationality, culture, religion & belief, sexual orientation, age or disability.	Action Plan due (or Not Applicable): Not applicable.
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Name and Designation of Person responsible for completion of this form: Bill McMeekin, Health & Safety Manager in Cellular Pathology..... Date: 07/02/2011

Names & Designations of those involved in the impact assessment screening process: Steve Stoker, Clinical Effectiveness Manager, Clinical Governance & Risk Department

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 (If any reader of this procedural document identifies a potential discriminatory impact that has not been identified on this form, please refer to the Policy Author identified above, together with any suggestions for the actions required to avoid/reduce this impact.)