Our Vision
The best care for every patient

NHS
Norfolk and Norwich University Hospitals
NHS Foundation Trust

Labelling, Packaging and Transportation of Specimens

Document Control:

For Use In:	Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH).		
Search Keywords	Specimens, Responsibilities, procedures		
Document Author:	Health & Safety Lead Advisor		
Document Owner:	Workplace Health & Wellbeing		
Approved By:	**Health and Safety Committee**		
Ratified By:	**Health and Safety Committee**		
Approval Date:	October 2024	**Date to be reviewed by:**	October 2027
Implementation Date:	N/A		
Reference Number:	7808 Version 12		

Version History:

Version	Date	Author	Reason/Change
V1.0	Feb. 2012	Janis Baugh	Cancelled
V2.0	Mar. 2012	Janis Baugh	Review – New Version
V3.0	Oct. 2012	Janis Baugh	Bi-Annual Review
V4.0	Nov. 2014	Janis Baugh	Extended Review
V5.0	Apr. 2015	Janis Baugh	Annual Review
V6.0	Mar. 2017	Janis Baugh	Extended Review
V7.0	Apr. 2017	Janis Baugh	Bi-Annual Review
V8.0	Mar. 2018	Janis Baugh	Review
V9.0	Feb. 2019	Lee Carter	Review
V10.0	Dec. 2020	Lee Carter	Bi-Annual Review
V11.0	Dec. 2022	Lee Carter	Bi-Annual Review
V12.0	Oct. 2024	Lee Carter	Bi-Annual Review

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
Document amended and amalgamated to include Trust Doc. 7806, Transportation of Specimens and Trust Doc.7807, Labelling and Packaging Specimens.	Dec 2020

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:

Microbiology
EPA Service Operations Manager
Trust Estates

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g., changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a non-clinical procedure applicable to NNUH please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

Contents Page

Quick reference (optional)

Whenever possible the air tube system must be used to transport specimens internally at the Norfolk & Norwich University Hospitals Foundation Trust, Colney Lane to reduce the risk of infection to staff and to ensure that the specimen reaches the laboratory in the optimum timeframe. This section outlines the procedure to be followed when using the air tube system; other methods of transportation are covered in 3.2 -3.8.

1. Introduction

1.1. Rationale

The Norfolk and Norwich University Hospitals NHS Foundation Trust is committed to ensuring that the transportation of specimens is carried out safely. The procedure will apply to all staff or contractors who transport specimens within and between the NNUH, NHS Trust sites, including Cromer Hospital, Cotman Centre, Department of Microbiology, James Paget Hospital, Queen Elizabeth Hospital and specimens from general practitioner premises.

1.2. Objective

To safely transport specimens from the patient to their destination.

It is vital that ALL specimens are placed within the appropriate packaging, container and labelled correctly. The specimens should be placed in an identified secure place prior to collection and transportation.

At any given time it is likely that there will be a number of specimens being transported that present the risk of infection. Some of these will have been identified but there are others where a diagnosis will not have been made. It is therefore vital that **ALL** specimens are safety contained and transported from the patient to their end destination.

If a specimen is suspected or known to present a specific infection hazard, it is important to ensure by use of the danger of infection (DOI) label that laboratory staff can identify the specimen in question and be given sufficient clinical information about it to enable them to take any appropriate additional precautions.

1.3. Scope

This document is based on current legislation, risk assessment, change in practice, industry standards.

1.4. Glossary

Health and Safety Management System documents are regarded as ‘Organisation-wide’.
The following terms and abbreviations have been used within this document:

Term	Definition
DOI	Danger of infection

NNUH	Norfolk and Norwich University Hospitals NHS Foundation Trust

2. Responsibilities

2.1 **Chief Executive**

- Has the overall responsibility for health and safety, including transportation of specimens within the Trust and also has responsibility for ensuring the provision of the necessary resources for the implementation of the procedures throughout the Trust.

2.2 **Executive and Divisional/Clinical Directors**

- Delegating through Divisional Directors, Divisional Operational Managers and Heads of Department are responsible for ensuring that all procedures associated with transportation of specimens are communicated and implemented within their own Divisions and Departments.

2.3 **Divisional Operational Managers and Heads of Departments**

Must ensure:

That all staff are made aware of the requirements of the safe transportation of specimen procedures and comply with the systems that are contained within them.

- That all staff receive the appropriate training, information and instruction to enable them to utilise the appropriate safe systems for the transportation or specimens across the Trust.
- That all reported incidents involving the transportation of specimens are investigated and the necessary actions carried out within the agreed timescales
- That appropriate action is taken when workplace inspections, audits or general observation indicates the non-adherence to the required procedure for specimen transportation in their area of responsibility.

2.4 **Trust Dangerous Goods Safety Advisor (DGSA)**

- Will ensure that all relevant procedures reflect the current legislative requirements for the safe transportation of specimens by the Trust.
- Advise the Trust on the current legislative requirements for packaging of specimens and the safe transportation of those specimens to their destination locations.

2.5 **Health and Safety Team**

- Will carry out annual audits based on the specifics of the specimen transportation including clinical areas within the scope of this policy.

2.6 **All Employees**

- Must ensure that they follow the relevant procedures for the safe transportation of specimens. Failure to do so could result in disciplinary action.
- Must report any adverse incident arising from the transportation of specimens on extn. 3333 (Colney site) and on Datix on-line reporting system. This includes spillage and incorrect use of the pneumatic air tube system.
- Take reasonable care of their own health and safety and the health and safety of others who may be affected by their activities when involved in the transportation of specimens.
- Must attend any necessary training and be aware of the requirements or safe transportation of specimens and what to do in the case of spillage or adverse incidents.

2.7 **Serco (Facilities Management Provider – Colney Site)**

- Will be alerted via 3333 helpdesk by the person who identifies any adverse incident that involves the pneumatic air tube system and investigate to determine if the decontamination procedure needs to be implemented.
- Will implement the decontamination procedure for the air tube system when required and assist in providing alternative transportation methods for specimens until the air tube is cleared for re-use.

2.8 **All associated Contractors and GP surgeries**

- Will work in co-operation with the Trust to ensure that correct
- procedures for the transportation of specimens are followed and staff trained appropriately.
- It will also cover those times when due to the hazardous nature of the
- specimen, another laboratory needs to be used which can deal with higher risk specimens.

3. Processes to be followed

The person who takes the specimen must ensure that the container used for sending the specimen is the appropriate one for the purpose, is properly sealed and is not externally contaminated by the contents. In addition, the person must ensure that the patient sample is labelled correctly at the point of collection.

The person requesting specimens must ensure that all correct procedures are followed to safely transport the specimen and accept ultimate responsibility for that specimen until received by the laboratory.

3.1. Air Tube System

<u>Exceptions</u>

Specimens **must not** be sent through the air tube system if one or more of the following criteria apply.

- **Arterial blood gases** (see section 3)
- Radioactive specimens
- Samples larger than 50ml
- Weight exceeds 150 g excluding air tube pod.
- Size exceeds air tube pod and lid does not fit correctly
- Specimen infected (or suspected) with a Hazard Group 4 pathogen
- Histology samples.
- Cerebrospinal fluid (CSF) –these samples must be taken by hand to pathology reception /West Atrium as appropriate

All radioactive specimens should be personally transported to the laboratory concerned and not put in the air tube system.

The person sending the specimen MUST ensure:

- The specimen container must be correctly sealed for transit
- The specimen container must be labelled and packaged according to the Procedure - Specimens Labelling and Packaging
- The packaged specimen should be placed inside an air tube pod with sufficient absorbent material (blue paper towelling or absorbent pad) ensuring that the pod lid fits correctly. The air tube pod should not be used if the **velcro** at either end has become smooth, as this affects the operation of the air tube system.
- More than one specimen can be transported in a pod at one time assuming the above guidelines and criteria are met and the pod is no more than 75% full.

3.1.1. Dispatch

- The address (code number) should be keyed into the air tube system station, this code **must** be checked prior to pressing the enter key (E). (Address lists are located at each station)

3.1.2. Contaminated Pod

- If an air tube pod is found visibly contaminated on the outside it should be placed in a suitable container, placed in a safe location out of use and an immediate call placed to the Serco Service Desk on Extn. 3333.
- If a leaking sample is seen inside a pod, the pod should be left shut and taken to the laboratory inside a clear plastic bag. At no time should anyone put themselves at risk by opening the pod.

3.1.3. Cleaning

Serco are responsible for providing a suitable and sufficient pod cleaning system and for maintaining documentary evidence

3.2. Arterial Blood Gas Specimens

Do not use the air-tube system for blood gas samples.

The person having drawn the blood must firstly remove the needle from the syringe using the needle removing device on the sharps container and discard the needle in the Sharps container. The blind hub that is provided with the syringe must then be applied to prevent sample leakage.

The syringe must then be labelled with the patient's details (an addressograph label is acceptable for this function).

Syringes must not be transported to blood gas analysers with needles still attached for safety reasons. Laboratory staff are not allowed to accept a syringe with the needle still attached or a syringe that is unlabelled.

The sample needs to be transported to a blood gas analyser within 10 minutes of being taken. The warmer the environment the more rapid the deterioration in quality, so the sample should be put into a specimen bag to avoid being held in the hand (and preferably cooled using crushed ice in transit) and taken immediately to the blood gas machine for analysis.

3.3. Personal transportation for Eastern Pathology Alliance (EPA) specimens– Haematology, Clinical Biochemistry, Transfusion, Microbiology (amend as required)

Specimens should only be personally transported for the following reasons:

- Those areas/departments that do not have access to the pneumatic air tube system.
- When the pneumatic air tube system is not in operation.
- When the specimens exceed the size or weight for them to be transported via the air tube system.
- Arterial blood gas specimens (syringe will empty in pod system)
- If specimen is likely to contain a Hazard Group 4 pathogen
- Urgent specimens to West Atrium Reception for onward transportation by an agreed courier, contractor or taxi.
- **Multiple specimens transported together should be placed in a larger bag /container to avoid loss/ breakage /damage en route to Pathology reception.**

3.3.1. Cellular Pathology Specimens – Histopathology, Non- Gynae Cytopathology) and Gynae Cytopathology

These stringent procedures must be adhered to prevent specimen loss, **Histopathological samples are not repeatable.**

- All specimens should be packaged and labelled in accordance with the appropriate Departments User guide.
- If the specimen container is too large to fit into a marsupial bag, or if a marsupial bag is not available, the specimen should be placed into polythene bag and sealed/tied, before placing the specimen into the secondary polythene bag. An absorbent sheet will also be present in the transport box to absorb any spillage within the box.
- For all Histopathology specimens, a SPECIMEN/ SENDER LOG MUST be completed. Patient Addressograph labels must be placed on each copy where available. A separate 'immediate priority/urgent 'sender log should be used for urgent samples (which are coloured pink).
- Specimens should then be placed in an approved (UN3373 compliant) metal transport box addressed to "Cellular Pathology at the Cotman Centre". The sender log should be placed within the plastic wallet which is supplied within the transport box.
- Before the porter arrives, the box should be sealed using a plastic cable tie. Collection porters are instructed not to collect unsealed specimen transport boxes.
- It is good practice to carry out a final check to ensure that the entries on the sender log match the specimens /request forms placed in the transport tin. It is often easier to resolve any discrepancies at this stage, before the specimens are sent to the lab.
- Theatre staff will request urgent specimen collections from these points only. The exact location must be communicated to the porter when requesting the collection:
    I. Theatre prep rooms
    II. Theatre specimen rooms

Immediate Priority Samples

- May be transported by the urgent porter, they can be contacted on extension 6021 (01603 646021) bleep 1113. Please note that this service is available between from 8:30 to 16:30.
- (Fixed histopathology samples rarely require this service if unsure please phone the lab on 2029)
- For urgent out of hours Histopathology samples please contact the Histopathology Biomedical Scientist on call via the switchboard. See Appendix 2 (Urgent, Out of Hours Specimens for Histopathology) for further information.

3.3.2. General Guidance

All specimens should be packaged and labelled in accordance with the Procedure – Labelling and Packaging Specimens. Further information can be found via the Histopathology user guide (available on Trust docs).

- Under no circumstances should anyone transport specimen containers in their hand or pockets.
- Under no circumstances should specimens be transported with other items e.g. post.
- Specimens must be delivered promptly to their destination and should not be left unattended whilst in transit.
- If, on collection, a specimen has visibly leaked or is contaminated it is the responsibility of the ward staff to contact the laboratory reception for advice prior to transportation (x 2946).
- In the case of a suspected formalin leak phone the on-call technician for advice on x 2022 or via the switchboard out- of-hours
- Individuals coming into contact with any blood or body fluids as a result of specimen contamination should:
    I. Flush or wash the contaminated area.
    II. Report to Workplace Health and Wellbeing
    III. Site Practitioner out of hours
    IV. Complete an on-line Datix incident form

3.3.3. Specimen Containers and Closures

Specimen containers must be of an approved type that are sufficiently robust to withstand the stresses likely to be put upon them and must not leak in normal use and shall consist of:

- Primary receptacle (specimen bottle)
- Secondary packaging (ICE bag or marsupial bag)
- UN approved outer packaging.

Where road transport is required, the appropriate regulations must be adhered to, please refer to the Procedure for the Transportation of Specimens.

Separate user guides apply for specimen containers for Eastern Pathology Alliance (EPA) (Haematology, Clinical Biochemistry, Transfusion, Microbiology).

EPA website, https://www.easternpathologyalliance.nhs.uk/

For Cellular Pathology (Surgical Histology, Cytology, gynae and non-gynae specimens) see related documents.

3.4. Packaging and Labelling

All specimens should be packaged and labelled correctly this consists of:

3.4.1. Packaging

- Leak-proof specimen container.
- ICE bag or marsupial bag.
- Secure specimen transport carrier where applicable
- Specimens being sent to the Cotman Centre must be in the approved containers and include the sender log with details of the enclosed specimens. They must be sealed with plastic tags before transportation. The bulk of such specimens cannot be repeated so safety and security is paramount.

3.4.2. Labelling

Ensure that the specimen container label is completed in black ink with all relevant patient details at point of collection:

I. Surname
II. Forename
III. Date of birth
IV. HRN or NHS number
V. Location
VI. Date and time of collection
VII. Signature of person collecting the specimen

- Type of Specimen.
- Danger of Infection (DOI) label where appropriate.
- Location of the patient or details that would enable the laboratory staff to identify the source quickly.

All labels to be applied by the user must be self-adhesive.

All accompanying request forms MUST state the patient details AND the time and date the sample was taken (to comply with the Trust Policy for Venepuncture).

Any repeatable samples that are incorrectly labelled or unlabelled **will be discarded** in the interests of patient safety. Other samples may be accepted dependent on circumstances.

N.B. ICE request forms have attached labels to be used on the sample bottles. Addressograph labels must not be used to label sample bottles with the exception of Arterial Blood Gases and Blood Culture bottles.

3.5. Danger of Infection – Hazard Group 3 and Hazard Group 4 Pathogens

3.5.1. Hazard Group 3 pathogens which include:

Hepatitis B and C, HIV and TB, CJD, this is not an exhaustive list.

It is the responsibility of clinical staff to convey the appropriate information regarding specimens which require DOI labelling to the person taking the specimen from the patient.

Persons taking the specimen have the responsibility of ensuring that both the form and the container are correctly labelled with patient's details, DOI label to be used where appropriate and an indication of the risk status of the patient to be stated on the request form. If any new information becomes available concerning the risk status of the specimen it is the responsibility of the sender to inform the lab.

The DOI labels are available through the Procurement Department item code UNH 731.

3.5.2. Hazard Group 4 Pathogens (e.g., Viral Haemorrhagic Fever)

Where any group 4 Infection is known or suspected please refer to the Infection Prevention and Control Manual and Trust Guideline for Viral Haemorrhagic Fever (Trust Doc ID: 10584) – Management and contact the Duty Virologist, Microbiology Laboratory (01603 288587 or NNUH switchboard out of hours).

Group 4 pathogens must not be handled or processed by the Trust's laboratories without prior arrangement with the Duty Virologist.

3.6. Transport Bags

The leak-proof transport bag (ICE / marsupial bag) must be sealed by means of the self-sealing strip. Bags must not be sealed with pins, staples, metal clips, or any other sharp objects. To avoid contamination the pathology form must not be placed in the bag with the specimen. The bags must not be used more than once and if in doubt please seek advice from the appropriate laboratory.

3.7. 24 hours urine and large specimens, CAPD bags

For large specimens such as some histopathology, CAPD bags or 24-hour urine specimens, labelled specimen containers must be enclosed in individual approved sealable plastic bags.

Sufficient absorbent material must be placed in the bag to contain any leakage and the container carried in an upright position to minimise the risk of leakage.

The request form must be placed in the pocket on the outside of the plastic bag. To avoid contamination the request form must not be placed in the bag with the specimen.

3.8. Transportation of specimens using a specified contractor

Only the approved Contractor will be used for the routine collection and deliveries of specimens from GP sites, Clinical Commission Group Units, Microbiology Laboratory, Cotman Centre and other Norfolk & Norwich University Hospitals NHS Foundation Trust sites.

The contractor will comply with the current Road Transport Regulations.

This will be audited by the Trust Dangerous Goods Safety Advisor (DGSA) on a biennial basis or at a shorter interval if changes to the service or regulations occur.

3.8.1. General Guidelines

Specimens will only be collected from designated locations, these include:

- Pathology Reception at the Norfolk & Norwich University Hospital
- Main Reception, West Atrium In-patients, Norfolk & Norwich Hospital
- Main Reception, Norwich Community Hospital
- Phlebotomy Department, Cromer Hospital
- Main Reception, Microbiology Laboratory, Norwich Research Park
- Main Reception, Cotman Centre
- Reception areas at GP Sites.
- Reception areas at Clinical Commissioning Group Units
- Reception areas at Norfolk Mental Health Trust sites
- Reception at Wayland Prison
- Main Reception, Rouen Rd (Workplace Health and Wellbeing specimens)

All drivers will receive specimen handling and spillage training on commencement of employment. It is the Contractor's responsibility to ensure that all personnel receive the correct training and that the Goods Transport Drivers fully understand the requirements placed upon them. If any Goods Transport Driver is concerned about any aspect of the specimen handling, they should report these concerns to their Contract Manager.

It is the responsibility of the sender of the samples to ensure that the driver is informed of the correct destination; delivery to the wrong pathology department may result in delays and therefore compromise the samples.

Spillage kits will be provided by the contractor and will contain the following as a minimum requirement.

- Emergency Action Card
- Disposable absorbent material
- Suitable gloves

- Eye protection
- Disinfectant
- Dustpan and brush
- Approved bag for disposal

3.8.2. Acceptance of Specimens

Specimens should be sorted and separated at source to ensure they arrive at the correct destination.

No specimen will be accepted unless it is correctly packaged in accordance with the Labelling and Packaging of Specimens Procedure. Specimens will only be collected and delivered to the designated areas. The designated delivery areas are:

- Specimen Reception, Cotman Centre
- Specimen Reception, Pathology Department, Norfolk & Norwich University Hospitals NHS Foundation Trust
- Specimen Reception, Microbiology Laboratory

If a specimen container is leaking, the Goods Transport Driver should refuse to accept the specimen and inform the collection point staff, so that they can take the appropriate action.

3.8.3. Transporting the Specimen

The specimens will be placed into the courier box. The container will be placed and secured into the rear of the vehicle. The vehicle will have the correct signage displayed accordance with the Carriage of Dangerous Goods and use of Transportable Pressure Equipment (Amendment) Regulations 2011. The specimen courier boxes will be fit for the purpose and correctly labelled.

- Specimens must not be transported in envelopes, plastic carrier bags or open boxes.
- Specimen courier boxes must not be transported on the front seat or the foot well of the vehicle.

N.B. Under no circumstances should the specimen courier box be used for any other purpose other than to carry specimens.

4. Related Documents

Trust Guideline for Viral Haemorrhagic Fever Trust Doc Id: 10584

5. Monitoring Compliance

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Duties are performed as per procedure	• Internal H&S Department audit	H&S Lead Advisor	Health and Safety Committee	Biennial
Requirement to undertake appropriate risk assessments	• H&S Checklists Internal H&S Department Audit	H&S Lead Advisor	Health and Safety Committee Non-Safety Clinical Safety Sub-Board Joint Health and Safety Group Executive Board	Annual Biennial
Staff training	HR Compliance Dashboard	Training Department Manager	Trust Executive Board Department Managers	Monthly

The audit results are to be discussed at relevant governance meetings Health and Safety Committee to review the results and recommendations for further action.

6. References

Not Applicable

7. Appendices

- Appendix 1 - Urgent Specimen Record
- Appendix 2 - Histopathology Guidance for “Out of Hours Specimens”

8 Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Human Resources	**Department**	Health and Safety
Name of person completing form	Lee Carter	**Date**	December 2022

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race	Nil	Nil	None	Nil
Pregnancy & Maternity	Nil	Nil	None	Nil
Disability	Nil	Nil	None	Nil
Religion and beliefs	Nil	Nil	None	Nil
Sex	Nil	Nil	None	Nil
Gender reassignment	Nil	Nil	None	Nil
Sexual Orientation	Nil	Nil	None	Nil
Age	Nil	Nil	None	Nil
Marriage & Civil Partnership	Nil	Nil	None	Nil

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.

8. Appendices

Appendix 1: Urgent Specimen Record

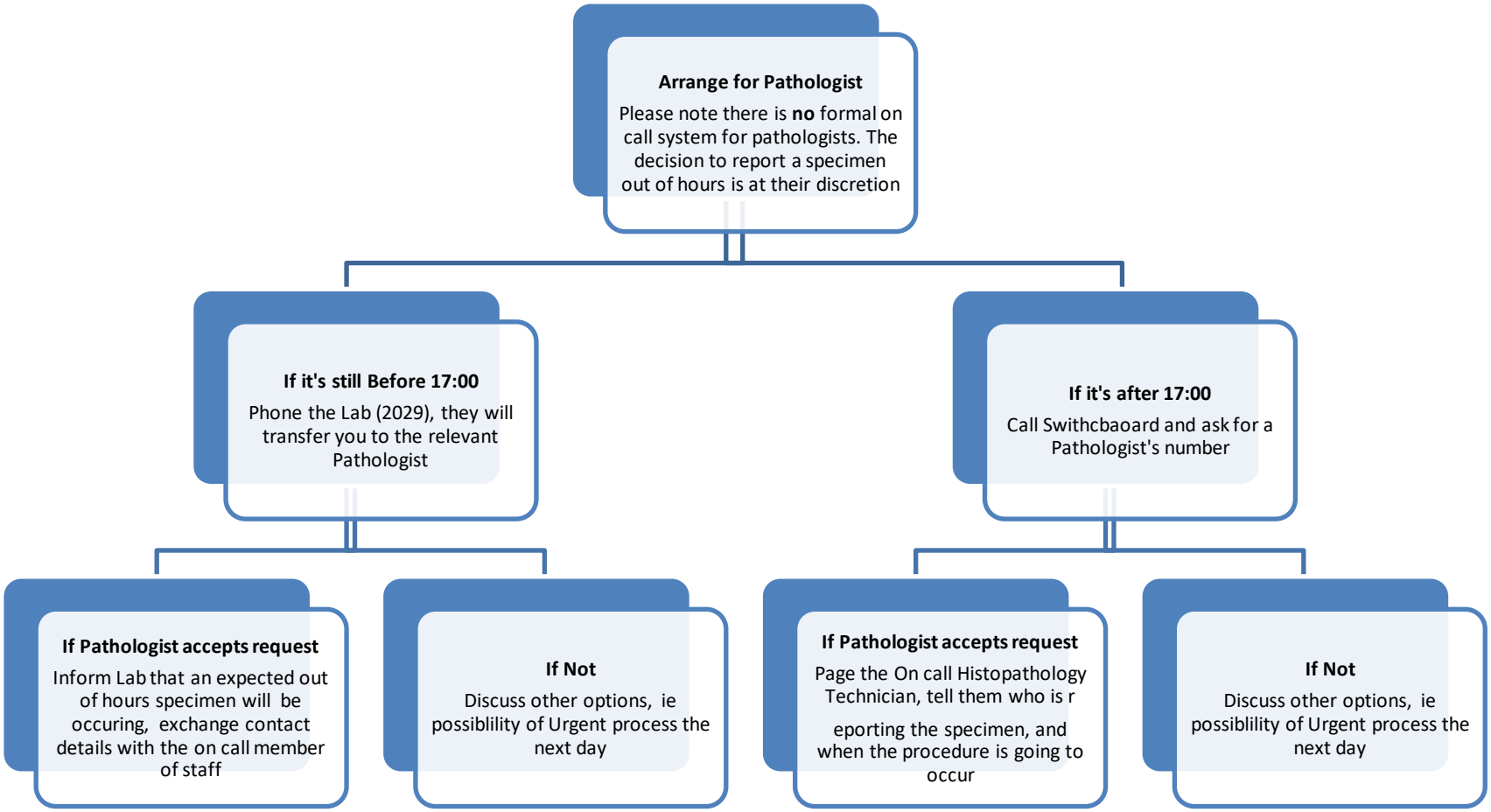
Date	Time Received	Patients Hosp. No	Who Delivered to Collection Point	Destination	Who will deliver to Destination	Time Specimen leaves	Initials (Security or Receptionist)

Appendix 2: Histopathology Guidance for "Out of Hours Specimens"

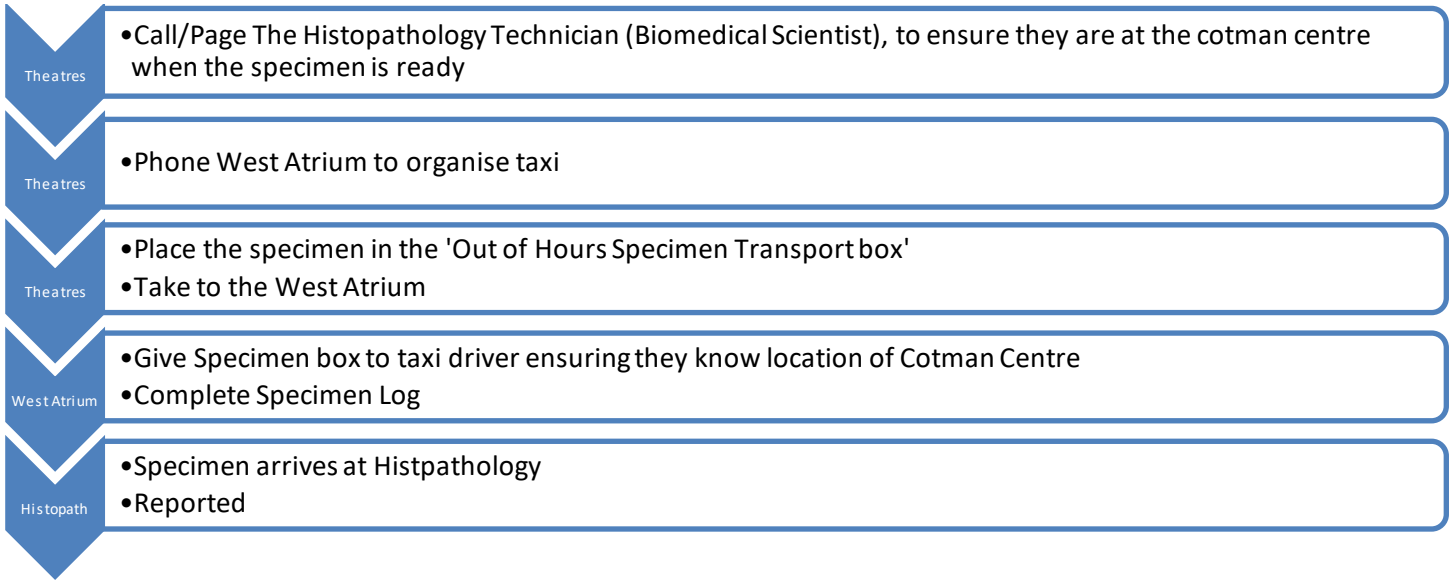
URGENT, OUT OF HOURS SPECIMENS FOR HISTOPATHOLOGY

If you are aware that there is likely to be an 'Urgent, Out of Hours' Specimen

(i.e the specimen will be ready after 16:30) (instructions for Theatre staff)



When the specimen is ready (instruction for Theatre and West Atrium staff)



Important Points

- Histopathology is staffed from 08.00 -17.00; outside of these hours on call staff are available through switchboard
- Good communication is vital, please ensure everyone is aware of any changes to times, or cancellation of procedures.
- Lab Phone number 2029
- Please make sure the laboratory knows that the specimen is on its way.
- Use the correct tin ‘Out of Hours Transport Box’ (this contains delivery information for the taxi service)
- The emergency porter is only available from 9:00 to 16:30 (ext 6021)
- There is no formal on call system for pathologists. The decision to report a specimen out of hours is at their discretion
- Specimens that arrive at the Cotman centre for 9:00am can often be processed and reported within the same day if there is a clinical need.
- Please refer to the Histopathology User Guide (available on trust Docs for further information)