

HISTOPATHOLOGY DEPARTMENT USER HANDBOOK

This SOP supersedes all previous versions

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Introduction



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This symbol shows that our department has passed full accreditation against ISO standard 15189:2012 under registration number 8057. Accreditation provides formal recognition that our department is competent to perform histology, non-gynaecological cytology and mortuary services in a reliable, credible and accurate manner.

The Histopathology department is committed to providing a service of the highest quality and shall be aware and take into consideration the needs and requirements of its users. In its pursuit of excellence and as part of its continuous quality improvement programme the Pathology department participates in all relevant internal and external quality assurance schemes.

This guide covers histology and non-gynaecological cytology services. Details regarding mortuary services can be found in the mortuary user handbook.

The laboratory service is provided from the North Tyneside site. Information provided in this guide applies across the Northumbria Healthcare NHS Foundation Trust unless otherwise stated. The department follows a policy of continuous review of service provision and would welcome any comments or suggestions on any aspect of the service provided.

Routine hours of work: 8:30a.m. - 5p.m. Monday to Friday.

Please be aware that all histology and cytology specimens are processed and reported at the histology laboratory at NTGH.

Protection of personal information:

Northumbria Healthcare Foundation Trust takes the security of personal information very seriously. Everyone working for the NHS has a legal duty to keep information regarding patients confidential. Patients' health information is protected through a number of measures and all Trust staff are required to:

- Record patient information accurately and consistently
- Keep patient information private

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- Keep patient information physically secure
- Disclose and use information with appropriate care

Any breaches of security or incidents relating to Information Governance are investigated, actioned and reported via the Trust's Governance Structure.

In order to support our staff in ensuring personal information is kept securely, the Trust have a number of policies which set out the requirements staff must fulfil when accessing or sharing personal information. All staff undertake annual Information Governance training which includes topics such as information security, confidentiality and data protection.

The department works to all Trust policies regarding the protection of personal information. These policies are available on the Trust intranet under Data Governance and Information Governance. These policies can be viewed via the Trusts intranet at the following link:
<http://intranet2.northumbria.nhs.uk/home/policies-and-procedures/>

Compliments, concerns and complaints:

Our department aims to provide a high quality service to all patients and users. We realise that there may be times when we do not always get things right. On these occasions we welcome your feedback as this helps us to improve the services we provide.

If you have any problems with any aspect of our services, please tell us by contacting the BMS4 or BMS 3 (contact details can be found below).

The Trust has a complaints policy and procedure for raising concerns (policy RMP14). Concerns and complaints can be raised verbally or in writing with the Pathology Services Coordinator, Laboratory Manager or via the Patients Services/PALS. The department encourages users to raise any concerns to ensure the continued provision of the highest quality service possible. We endeavour to resolve any issues raised as quickly as possible. The contact details for patient services and PALS are as follows:

Patient services:

Northumbria Healthcare NHS Foundation Trust
Freepost PATIENT SERVICES
Tel: 0191 203 1340
Email: patient.services@nhct.nhs.uk

PALS

Patient Advice & Liaison Service (PALS)
Freepost RLTC-SCHH-EGXJ
North of Tyne PALS
The Old Stables
Grey's Yard
Morpeth

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Northumberland NE61 1QD
Tel: 0800 032 0202
Text: 01670 511 098
Email: northoftynepals@nhct.nhs.uk

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Useful telephone numbers

Name	Telephone extension	Telephone
<u>Consultant Pathologists</u>		
Dr S. Abraham	Ext 4679	
Dr R. Hussain	Ext 2371	
Dr K. Sharma	Ext 4519	
Dr L. Wilkinson	Ext 4518	
Dr L. Thilak	Ext 2384	
Specialist Registrar	Ext 4522	
<u>Medical Secretaries</u>		
Miss G. Brown		(0191) 2934194
Mrs S. Newby		(0191) 2934196
Mrs J. Docherty		(0191) 2934195
		(0191) 2932536
		(0191) 2932714
<u>Laboratory</u>		
BMS 4 (lab manager) – Ian Taylor	Ext 4197	(0191) 2934197
BMS 3 – Philip Gibson Specimen Reception	Ext 2382 Ext 4523	(0191) 2934197
Histology Lab	Ext 2381	
<u>Mortuary Enquiries</u>		
NTGH	Ext 2555	
WGH	Ext 33745	
HGH	Ext 5013	
NSECH	Ext 72263	

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Request forms

Histology	NTGH - single copy request form WGH, HGH and NSECH - 2 part request form GP's - ICE request forms, histology request form can also be used
Cytology	NTGH - single copy request form WGH, HGH and NSECH – 2 part request form GP's – ICE request forms, cytology request forms can also be used

Obtaining supplies of request forms, specimen containers, transit bags

The following histology and cytology specimen containers are supplied on request:

- 60ml and 350ml pre-filled with formalin for small biopsies/specimens
- Buckets (assorted sizes) for larger specimens
- Note: buckets cannot be supplied pre-filled with formalin
- 50ml containers pre-filled with cytolyt fluid

WGH and NSECH:

- By telephone: 0344 8118111 ext. 33758. If no one is available please leave a message on the answer-phone.
- By completion of a laboratory supplies requisition form.
- By e-mail: lorraine.charlton@northumbria-healthcare.nhs.uk.

HGH:

- By telephone 0344 8118111 ext. 5942.
- By completion of a laboratory supplies requisition form. This may be posted in or faxed to (01434) 655017.

NTGH:

- By telephone: 0344 8118111 ext 2764 / 4523.
- By completion of a laboratory supplies requisition form. This may be posted in or faxed to (0191) 2934321 / (0191) 2932739.

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Routine histopathology/non-gynae cytology service

All histopathology and non-gynae cytology specimens are processed and reported at the NTGH laboratory. Specimens should be submitted with the least possible delay, and must be accompanied by an appropriate fully completed request form.

Requirements when submitting specimens for histology

All histology specimens must be submitted in formalin fixative unless there has been a special arrangement agreed directly with the laboratory.

The request form must be fully completed by the requestor. All highlighted areas on the form must be completed. These include:

- Name of patient
- D.O.B
- NHS number
- Trust number where applicable
- Address
- Source of specimen (hospital and ward, or GP and surgery)
- Date and time specimen taken
- Clinician responsible for patient
- Clinician's signature
- Specimen details

The specimen container must also be clearly labelled. Please place the label on the side of the container and not on the lid. The minimum amount of information required on the specimen container is:

- Name of patient
- D.O.B
- NHS number

PLEASE NOTE THAT THE NHS NUMBER IS THE UNIQUE IDENTIFIER OF A PATIENT AND MUST BE DOCUMENTED ON BOTH THE REQUEST FORM AND SPECIMEN CONTAINER

Without this information the specimen cannot be processed and may either be returned to the sender or the requesting clinician will be required to attend the laboratory in order to provide the required information. This will result in a delay in the turnaround time of the specimen and will be Datix reported.

Clinical history is also essential for proper interpretation of all specimens.

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Specimen transport arrangements

All specimens taken at clinics / wards on the WGH, HGH and NSECH sites are subsequently forwarded to NTGH by courier.

Specimens taken by GP's in the WGH catchment area are collected by courier and taken to Wansbeck pathology specimen reception prior to forwarding to the NTGH laboratory.

Specimens taken by GP's in the HGH catchment area are collected by courier and taken to the Hexham pathology specimen reception prior to forwarding to the NTGH laboratory.

The following table shows the courier collection times at the WGH and HGH sites for histopathology and cytology specimens. Please ensure that specimens are forwarded to the pathology specimen reception as soon as possible after collection to facilitate a timely delivery to the NTGH site.

Site	Collection time
Hexham pathology to North Tyneside	10:00
	13:45
Wansbeck pathology to North Tyneside	10:30
	15:00

NSECH collections are made by hospital vans every hour between 8:30 and 17:00.

Requirements for collection of histology specimens

Tissue samples for histological examination should be placed immediately into fixative solution: 10% buffered formaldehyde (formalin)*

It is important to select a specimen container of adequate size; tissue must never be crammed into a container and the volume of fixative should be preferably ten times that of the specimen. Accurate labelling of specimens is imperative.

Please ensure that containers are properly sealed to prevent leakage and that the request forms are not placed in same bag as the specimen.

If an urgent report is required on any specimen it is advisable to contact the laboratory and provide details of the patient and specimen to ensure priority processing.

*COSHH information – Formaldehyde



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Formaldehyde is a toxic chemical. It must be handled in accordance with COSHH regulations. Please ensure that the solution is used only as directed.

- Keep the container tightly closed in a cool, well ventilated area
- Keep away from sources of heat and ignition
- Return unwanted or out of date containers to the NTGH laboratory
- In case of contact with eyes irrigate immediately and obtain medical advice
- Do not breath vapour / spray
- Harmful by ingestion
- Evidence of mutagenicity and teratogenicity is documented

A safety data sheet relating to this chemical may be obtained by contacting the North Tyneside laboratory.

High risk specimens

Any specimen taken from a patient which is known to be a carrier of a Category 3 or 4 pathogen must be clearly labelled to minimise the risk of infection to couriers and laboratory personnel. The following precautions must be adhered to:

- The container must be clearly labelled with the full patient identification details.
- The container must be clearly labelled to indicate a danger of infection.
- Yellow is internationally used to signify danger. Stickers stating **Danger of Infection or Biohazard** using black print on yellow background must be used.
- More specific ones such as 'Hepatitis Risk' may also be used.
- The container must be correctly closed to avoid leakage.
- The request form relating to the specimen must have full patient details.
- The request form must give sufficient clinical details about the danger of infection to enable the specimen to be handled safely or for any special techniques to be applied.
- A danger of infection specimen must be placed in an individual transparent plastic transport bag as soon as it has been labelled.
- This bag must be sealed by an integral sealing strip or other suitable means to allow the bag to be opened without using a sharp instrument.
- It must not be sealed by pins, staples etc or any other sharp method.
- The request form **MUST NOT** be placed in the same bag as the specimen or stapled or pinned to the specimen bag.
- A danger of infection sticker must be put on the bag to enable porters, lab staff etc. to be aware of the potential hazard.



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Special histopathological investigations

Skin biopsies requiring immunofluorescence:

These biopsies are processed by the cellular pathology department at the RVI – Contact 0191 282 4270.

Deposited immunoglobulin and complement can be detected by staining of tissue with fluorescently labelled rabbit anti-human antibodies recognising IgG, IgM, IgA, Fibrinogen or C3. The biopsy should be from an early lesion and not a blister.

Tissue samples for immunofluorescence (IMF) must not be placed into 10% formalin. Skin biopsies should first be bisected and one half placed into 10% formalin for routine histological processing. The other half should be placed into a container of Michel's tissue fixative and clearly labelled with the patient I.D. Aliquots of this fixative are supplied by the RVI cellular pathology department and may be requested by contacting the ICC laboratory on 0191 282 4270. Michel's tissue fixative must be stored in a refrigerator.

All skin biopsies requiring immunofluorescence must be sent directly to the RVI cellular pathology department. Any specimen which carries a risk of infection should be marked with a biohazard sticker. **If in doubt telephone the RVI laboratory before removing the specimen so that advice can be given before it is too late.**

Frozen section service:

This service is non-routine and is only available by booking and discussion with a Consultant Pathologist. Tissue for examination by frozen section **must not** be put in fixative, but should be placed in a fully labelled sterile universal container. A histopathology request form must be fully completed and also include a telephone number to contact when the report is ready. Frozen sections **will not** be performed on specimens which carry a risk of infection. Full contact details for the surgeon must be provided to ensure efficient reporting arrangements.

NTGH

A frozen section examination may be arranged by telephoning the histopathology office or laboratory, preferably the day before the examination is required. In the case of an unplanned frozen section please contact the laboratory to advise of the request prior to dispatch of the specimen to the laboratory. The tissue sample should be taken directly to the histopathology specimen reception and handed directly to a member of staff.

WGH, HGH and NSECH Sites

There are no facilities to analyse frozen sections on these sites. Specimens will be transported to NTGH by blue light courier transport.

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If the frozen section is **planned** in advance of the surgical procedure please contact the laboratory directly for discussion with a pathologist and also to facilitate courier booking for collection and transport of the specimen.

In the case of **unplanned** frozen sections, theatre staff must adhere to the following protocol:

- As soon as the surgeon indicates a requirement for frozen section the theatre staff must telephone the NTGH laboratory on extension 2381 and provide details of the theatre location, patient details, the nature of the specimen and the requesting surgeon.
- The laboratory will immediately contact the Lifeline courier who will be directed to theatre main reception where the specimen should be taken for collection.
- The specimen must be accompanied by a fully completed histology request form and include a telephone number to contact once the result is available.

The histopathology office or laboratory must be notified of the postponement or cancellation of a frozen section request.

Routine cytology service

All **cervical cytology** is processed at the **cytology department at the RVI**. All enquiries relating to cervical cytology should therefore be directed to the RVI laboratory. The contact number is (0191) 282 4437.

All specimens for **non-gynae cytological assessment** must be sent immediately to the NTGH laboratory or relevant transit site (i.e. WGH, NSECH or HGH pathology specimen reception).

The request form must be fully completed by the requestor. All highlighted areas on the form must be completed. These include:

- Name of patient
- D.O.B
- NHS number
- Trust number where applicable
- Address
- Source of specimen (hospital and ward, or GP and surgery)
- Date and time specimen taken
- Clinician responsible for patient
- Clinician's signature
- Specimen details

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The specimen container must also be clearly labelled. The minimum amount of information required on the specimen container is:

- Name of patient
- D.O.B
- NHS number

Slides must have a minimum of the patient's name, D.O.B and NHS number wrote in pencil on the frosted end.

PLEASE NOTE THAT THE NHS NUMBER IS THE UNIQUE IDENTIFIER OF A PATIENT AND MUST BE DOCUMENTED ON BOTH THE REQUEST FORM AND SPECIMEN CONTAINER / SLIDES

Without this information the specimen cannot be processed and may either be returned to the sender or the requesting clinician will be required to attend the laboratory in order to provide the required information. This will result in a delay in the turnaround time of the specimen and will be Datix reported.

Clinical history is also essential for proper interpretation of all specimens.

Specimens and forms must be submitted with the least possible delay. The specimen container should be enclosed in a polythene bag. The request form should not be in direct contact with the sample. Specimens carrying a risk of infection should be marked by a **biohazard sticker**.

If an urgent report is required it is advisable to contact the laboratory and provide details of the patient and specimen to ensure priority processing.

Cytology processing

Liquid based cytology processing is carried out at the NTGH Laboratory. This requires that certain samples are placed directly into cytolyt* as indicated below. Specimen pots containing 30mls of cytolyt may be requested from the laboratory as detailed in the 'obtaining supplies' this guide.

*COSHH Information - Cytolyt



Cytolyt must be handled in accordance with COSHH regulations. Please ensure that the solution is used only as directed.

- Cytolyt is toxic and extremely flammable
- Return any unwanted containers to the NTGH laboratory

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In case of contact with cytolyt solution:

- Eyes – immediately flush with water for 15 minutes
- Inhalation – remove to fresh air
- Skin – remove any contaminated clothing and flush with water
- Ingestion – give water and seek medical advice

A safety data sheet may be obtained on request from the NTGH laboratory.

Guidance on cytology sample collection

Cytology samples should be sent to the laboratory as soon as possible to avoid delay in processing. Please do not take **one single sample** for both microbiology and cytology processing. If microbiology and cytology tests are required then **two samples** must be submitted - each accompanied by the appropriate fully completed request form.

Sputum

Three early morning samples from consecutive days are ordinarily examined. These are best taken before the patient consumes breakfast to avoid contamination of the specimen with food. Samples can be taken in either a 20ml white top sterile universal container or a 50ml silver top container (no cytolyt). If a delay is anticipated the specimen should be stored at 4°C.

Bronchial, oesophageal, gastric and biliary brushings

The brush head must be placed immediately into a 50ml silver top container containing cytolyt.

Bronchial washings

Samples can be taken in either a 20ml white top sterile universal container or a small white top sterile 10ml test tube. If a delay is anticipated the specimen should be stored at 4°C.

Pleural, ascitic, peritoneal, cyst fluid aspirates, and peritoneal washings

Samples must be taken in a 20ml white top sterile universal container. A single sample of 20ml is adequate. If a delay is anticipated the specimen should be stored at 4°C.

Cerebrospinal fluid (CSF)

Samples must be taken in a 20ml white top sterile universal container. If a delay is anticipated the specimen should be stored at 4°C. Taking of the specimen should be timed so that it arrives at the laboratory within normal working hours. **Ensure separate samples are submitted for microbiology and cytology (if applicable).**

Urine

The second voided sample of the morning is preferred. Samples must be taken in a 20ml white top sterile universal container. If a delay is anticipated the specimen should be stored at 4°C. Please avoid requesting patients to bring a sample in from home. Samples should preferably be collected in the clinic as delay in delivery of samples after collection often leads to an inadequate result.

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Fine needle aspiration (FNA)

- Using a pencil, label up 2 microscope slides with the patients name, D.O.B and NHS number.
Please do not use pen and do not attach printed labels to the slides.
- Affix a patient identification label to a 50ml silver top container containing 30ml cytolyt.
- Expel single droplet of sample onto each of the labelled slides.
- Spread the droplet (like a blood film) and **rapidly air dry**.
- Place in a plastic slide holder.
- Wash out the needle and syringe with cytolyt.

Risk assessment for the FNA procedure

The FNA procedure involves the preparation of unfixed, air dried slide preparations which may carry a risk of infection. **Gloves should be worn when carrying out this procedure.** Care should be taken when dispensing the fluid sample from the needle and spreading the slides. There is a risk of needle-stick injury and there is also the potential for aerosol formation which could subsequently be inhaled by the person making the slide preparations.

The FNA procedure **must not** be carried out on a high risk patient e.g. HIV, TB, Hep A, B, C. If a diagnostic opinion is required it is preferable that a core biopsy is taken which has been immediately fixed in 10% formaldehyde. The specimen container and request form must be marked with a biohazard sticker and information regarding the nature of the risk must be included with the clinical details.



If you require any further advice please do not hesitate to contact the laboratory.

Target turnaround times

The laboratory aims to provide an efficient turnaround on all specimens received. Specimens are prioritised on receipt to facilitate timely reporting e.g. cancer target. Our target times are as per RcPath published key performance indicators (KPI's):

- Report at least 80% of all requests within 7 calendar days (from date taken)
- Report at least 90% of all requests within 10 calendar days (from date taken)

Performance against these times is routinely monitored by the department. Please be aware that in certain circumstances these times will be exceeded. For example, complex cases which require further tests including immunocytochemistry, further opinion and decalcification of bone specimens.

In order to assist the laboratory to correctly prioritise specimens please utilise the tick boxes located on the bottom left corner of the specimen request form. The urgent box should only be ticked for

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cases where a very rapid turnaround of report is required. Cancer wait patients are treated as a priority within the laboratory to facilitate timely turnaround of reports. It is also helpful if you could specify a date when the report is required by e.g. next clinic appointment.

If you do require a very urgent report it is always advisable to contact the laboratory to highlight the case directly.

Human genetics investigations

These specimens must not come into contact with fixative.

All specimens for cytogenetic investigation and molecular genetic analysis should be sent directly to the mortuary with relevant paper work and they will then be forwarded to the Institute of Human Genetics Laboratory, International Centre for Life, Central Parkway, Newcastle Upon Tyne, NE1 3BZ. The telephone number for enquiries is (0191) 241 8703. Cytogenetic tests are not carried out at within the Trust.

Specimens carrying a risk of infection should be marked with a **biohazard sticker**. Specimens should be submitted with the least possible delay and should be accompanied by a fully completed human genetics request form. An explanatory letter with full patient details must be submitted if forms are not available. If subsequent histology is required following genetic investigations, then a fully completed histology request form must also be provided. The form and specimen will be sent to the histology department at NTGH by the Institute of Genetic Medicine once they have completed their investigations.