

NEHODS User Guide

Scope/Purpose

This user guide provides key information about the NEHODS SIHMDS service and its users, including lists of key contacts both within the service and within the Northern Region Haematologists group.

1. Introduction

NEHODS provides an integrated diagnostic service covering all aspects of the diagnosis and monitoring of haematological malignancies and related conditions. The service has facilities for flow cytometry, immunohistochemistry, metaphase and interphase cytogenetics studies and a wide range of molecular investigations.

Further details of the service can be found on the NEHODS webpage - www.newcastle-hospitals.org.uk/services/20913.aspx

2. Contacting NEHODS:

The full postal address of the laboratory is:

**NEHODS,
Blood Sciences, Flow Laboratory
Level 3, Leazes Wing,
Royal Victoria Infirmary, Richardson Road
Newcastle upon Tyne, NE1 4LP**

General NEHODS Enquiries: **0191 282 5028 / 0191 282 5078 (Lab.)** Email: tnu-tr.nehods@nhs.net

HaemoSys® enquiries: andrew.taylor@nuth.nhs.uk or Haemosys.support@nhs.net Tel: **0191 2821584**

Appendix a shows contact details for the full NEHODS staff.

Appendix b shows contact details for the Northern Region Group of Haematologists.

3. Requesting Investigations:

Copies of the request form can be obtained from the laboratory or downloaded from www.newcastle-hospitals.org.uk/services/20913.aspx or generated within HaemoSys®.

Things to double check before sending samples:

- We need THREE items of patient identification (including NHS number).
- Are all the tubes labelled? - we cannot accept unlabelled specimens.
- Are all the lids fastened? - leaking specimens compromise analysis and are a health risk.

If there are changes in the patient's condition or relevant new information emerges after the specimen is sent, please contact the laboratory so that additional investigations may be



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initiated if required. Investigations on tissue blocks and stored DNA can generally be carried out on archived material without time limit.

4. Sample Requirements and Transport

Book request on to HaemoSys®. See website www.newcastle-hospitals.org.uk/services/20913.aspx for the HaemoSys® Booking In SOP.

A **Diagnostic Kit** is available from NEHODS comprising:

Transport box, UN3373 PathoShield 8 (pre-labelled with the address above)

Sealable, internal bag with unique tracking number (Please make a note of this)

2 x 5 ml **EDTA** tubes – for Flow Cytometry and/or DNA extraction – **Please MIX WELL**

1 x 5 ml **Lithium Heparin** tube for Cytogenetics – **Please MIX WELL**

2 x 5 slide transport containers

Peripheral Blood (PB):

Send in **EDTA** tube or **Lithium Heparin**, 5 ml required, please mix well. Two PB smears.

Bone Marrow Aspirate:

Fresh bone marrow aspirate (BMA) smears and marrow sample in **EDTA** and **Lithium Heparin** tubes.

Cerebro-spinal fluid:

CSF samples should be kept refrigerated between 2-8°C. Sterile container – target minimum volume 0.5mls.

Bone Marrow Trephine biopsy

Should be fixed in 10% Formalin.

Unfixed Tissue Sample

Unfixed tissue samples - keep biopsy moist with a little normal saline and keep refrigerated between 2-8°C. If possible a portion of the sample should be placed in 10% formalin.

Fixed Tissue Block

Protect the front face of the paraffin block with tissue paper. Secure package.

Referred lymphoma tissue blocks should be sent with slides and a copy of the local report to the Department of Cellular Pathology, level 3 New Victoria Wing, Royal Victoria Infirmary, Newcastle NE1 4LP. These samples should not be booked onto HaemoSys.


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1. **All unfixed samples should be delivered to the laboratory within 24 hours.** If a sample is delayed beyond this point it may not be possible to carry out a full range of investigations, particularly those involving flow cytometry, cytogenetics or RNA extraction. In these circumstances, definitive diagnosis may not be possible. If there is going to be an unavoidable delay, please keep samples in the following conditions before transportation. Peripheral blood and bone marrow samples- keep refrigerated between 2-8°C
2. **For childhood acute leukaemia samples or if Burkitt lymphoma or acute promyelocytic leukaemia is a suspected diagnosis – please call the laboratory immediately (0191 2825028). For Burkitt lymphoma, please also make extra smear slides in view of apoptosis of lymphoma cells during transport.**
3. Samples that require DNA and/or RNA extraction- please ring the lab if there is going to be a delay greater than 24 hours to discuss the storage of these samples, as some tests may not be performed if the storage is incorrect or the delay is considerably longer.
4. When sending samples by post a secure container should be used to conform to current postal regulations, UN3373 and labelled according to the guidelines.
5. It is essential that appropriate labels are attached to request forms and containers where a sample is suspected as being 'High Risk'.
6. Samples should be sent directly to NEHODS

If there is any doubt about how to send a sample please contact the laboratory – 0191 2825078

5. Opening times

Monday to Friday 08:30 to 17:00

To ensure safe arrival of samples sent late in the day please call the laboratory if you expect a sample to arrive after 17:00 (except for routine late deliveries).

Staff are working in the laboratory between 08:30 and 20:00 Monday to Friday and from 09:00 13:00 on Saturday and provision can be made for urgent samples.

6. Out of hours service

An on call service is available for clinically urgent requests. This is where there is an immediate need to commence treatment. This service is accessed by contacting the consultant haematologist on call through the Newcastle Hospitals switchboard (0191 2336161). This should be done before the sample is taken.

7. NEHODS Reporting

NEHODS results are available using HaemoSys® - <http://www.haemosys.com>

Please see your local IT manager re. access to HaemoSys® or contact the System

Administrator – Andrew Taylor (andrew.taylor@nuth.nhs.uk or Haemosys.support@nhs.net - 0191 2821584)

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HaemoSys® contains a comprehensive user guide which is regularly updated.

Interim results: All users must be aware that results may be entered/saved into HaemoSys® before test results are fully authorised. Users must note that such results are interim and subject to change before authorisation of the test.

Authorised results: Authorised/Completed test results are clearly indicated with HaemoSys®, appearing on the right-hand side of the 'Test summary' screen

Integrated reports: Following completion of testing, integrated reports are published on HaemoSys® by the NEHODS Clinical Team. These final reports are either delivered to the local LIMS system or posted to the referring clinician. These reports are also available for download as pdf within HaemoSys®.

Lymphoma NEHODS reports are available through the APEX computer system. Paper reports are sent to the referring pathology departments. Urgent reports can be faxed if required. Please e-mail queries to CellularPathology.Secretaries@nuth.nhs.uk.

8. Turn around times

NEHODS Test	Target Turn around time
Bone marrow aspirate morphology	72hrs
Flow cytometry/Immunophenotyping	72hrs
Urgent FISH / karyotyping	72hrs
Integrated report compilation (from completion of all testing)	72hrs
Molecular Genetics (JAK2, MPL, BCR-ABL monitoring BRAF, KIT, TPMT, clonality)	10 days
Molecular Genetics (MYD88, CSF3R, FLT3, NPM1)	14 days
Routine Cytogenetics (karyotyping, FISH, arrays)	21 days
Lymphoma reporting	2 weeks
Molecular Genetics (MLPA – CLL)	4 weeks

9. Clinical Advice and Interpretation.

Please phone NEHODS office - 0191 282 5028 for clinical advice

Please telephone the Cellular pathology secretaries for lymphoma queries either contacting the lymphoma service secretary Karen Manners (0191 2825564) or the general office number (0191 2824445).



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10. Referral of investigations from NEHODS

1. Tissue biopsies with non-haematological malignancies are passed on to and reported in conjunction with the appropriate subspecialist team at the Royal Victoria Infirmary, Newcastle.
2. Bone marrow aspirate samples from patients with acute promyelocytic leukaemia have a sample of cDNA sent to Prof David Grimwade at Department of Haematology, Guy's and St. Thomas's Hospital, London. This is the national reference centre for these investigations.
3. Genomic DNA and cDNA from patients with atypical myeloproliferative disorders are referred to Professor Nick Cross at the Wessex Regional Genetics Laboratory, Salisbury. This is the national reference centre for these investigations.

11. NEHODS information

Further information regarding the service can be found on NEHODS webpage - www.newcastle-hospitals.org.uk/services/20913.aspx

General Service Enquires:

Lead Clinician - Dr.Peter Carey - peter.carey@nuth.nhs.uk – 0191 28 24743

Operational Manager - Gavin Cuthbert - gavin.cuthbert@nuth.nhs.uk – 0191 2418703

If there are problems or complaints about the service please call us. We aim to resolve most problems immediately and informally. If this cannot be done please write to Dr. Peter Carey in the first instance.

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Appendix a – NEHODS Contact list

NEHODS Office / General enquiries		0191 28 25028	tnu-tr.nehods@nhs.net
NEHODS laboratory / Routine sample + Haemosys enquiries		0191 28 25078	
Haemosys Systems Administrator	Andrew Taylor	0191 28 21584	andrew.taylor@nuth.nhs.uk haemosys.support@nhs.net
NEHODS Clinical Lead	Dr Peter Carey	0191 28 24743	peter.carey@nuth.nhs.uk
NEHODS Clinical Team	Dr Jonathan Wallis	0191 28 25648	jonathan.wallis@nuth.nhs.uk
	Dr Brigit Greystoke	0191 2139233	brigit.greystoke@nuth.nhs.uk
	Dr Roderick Oakes	0191 28 38482	roderick.oakes@nuth.nhs.uk
Flow Cytometry - Lead Scientist	Dr Dawn Barge	0191 28 25078	dawn.barge@nuth.nhs.uk
Immunohistochemistry	Terry Coaker	0191 282 9120	terry.coaker@nuth.nhs.uk
Cancer Cytogenetics		0191 2418703	cancer.cytogenetics@nuth.nhs.uk tnu-tr.cancer-cytogenetics-laboratory@nhs.net
Molecular Genetics		0191 2418799	molecular.genetics@nuth.nhs.uk
NewGene		0191 2421923	info@newgene.org.uk
NEHODS Operational Manager	Gavin Cuthbert	0191 2418711	gavin.cuthbert@nuth.nhs.uk
Lymphoma haematopathologists	Dr Katrina Wood	0191 28 29449	katrina.wood@nuth.nhs.uk
	Dr Chris Bacon	0191 28 29142	chris.bacon@nuth.nhs.uk
	Dr Despina Televantou	0191 28 21576	despina.televantou@nuth.nhs.uk
Cellular Pathology Lymphoma Secretary	Karen Manners	0191 28 25564	karen.manners@nuth.nhs.uk

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Appendix b – Northern England Haematologist list – please contact NEHODS if you require a copy of this

MDT	Trust	Hospital	Haematologists	Trust email address	nhs.net	
North of Tyne	Newcastle Hospitals	Royal Victoria Infirmary (tel: 0191 233 6161)	Dr Peter Carey Dr John Hanley Dr Kate Talks Dr Tina Biss Dr Brigit Greystoke	Peter.Carey@nuth.nhs.uk John.Hanley@nuth.nhs.uk Kate.Talks@nuth.nhs.uk tina.biss@nuth.nhs.uk brigit.greystoke@nuth.nhs.uk	johnhanley@nhs.net	
			Dr Jonathan Wallis Dr Gail Jones Dr Tobias Menne Professor Matt Collin	Jonathan.Wallis@nuth.nhs.uk Gail.Jones@nuth.nhs.uk Tobias.Menne@nuth.nhs.uk Matthew.Collin@nuth.nhs.uk	gail.jones7@nhs.net t.menne@nhs.net matthew.collin@nhs.net	
		Northern Centre for Cancer Care, Freeman Hospital (tel: 0191 233 6161)	Professor Stephen G O'Brien Dr Anne Lennard Professor Graham Jackson Dr Venetia Bigley Dr Roderick Oakes (Thurs+Fri) Dr Wendy Osborne Dr Arian Laurence Dr Erin Hurst	lucy.manning@nuth.nhs.uk Anne.Lennard@nuth.nhs.uk Graham.Jackson@nuth.nhs.uk venetia.bigley@nuth.nhs.uk Roderick.Oakes@nuth.nhs.uk wendy.osborne@nuth.nhs.uk Arian.Laurence@nuth.nhs.uk Erin.Hurst@nuth.nhs.uk Chris.Williams2@northumbria-healthcare.nhs.uk	stephen.o'brien1@nhs.net anne.lennard@nhs.net Roderick.oakes@nhs.net	
	Northumbria	North Tyneside General (tel: 0344 811 8111)	Dr Chris Williams Dr Rachel Wells Dr Chris Tiplady Dr Charlotte Bomken Dr Mari Kilner	rachel.wells@northumbria-healthcare.nhs.uk Chris.Tiplady@northumbria-healthcare.nhs.uk charlotte.bomken@northumbria-healthcare.nhs.uk mari.kilner@nhct.nhs.uk	chris.williams15@nhs.net rachel.wells4@nhs.net christopher.tiplady@nhs.net charlotte.bomken@nhs.net mari.kilner@nhs.net	
			Wansbeck General (tel: 0344 811 8111)	Dr Simon Lyons Dr Ian Neilly Dr George Holmes	Simon.Lyons@northumbria-healthcare.nhs.uk ian.neilly@northumbria-healthcare.nhs.uk George.Holmes@northumbria-healthcare.nhs.uk	simonlyons@nhs.net ian.neilly@nhs.net George.Holmes@nhs.net
			Northumbria Emergency Care + Hexham General (tel: 0344 811 8111)	rota of Consultants from North Tyneside and Wansbeck		
			North Cumbria	Cumberland Infirmary (tel: 01228 523 444)	Dr Roderick Oakes (Mon-Weds) rota of Consultants from North Tyneside and Wansbeck	Roderick.Oakes@ncuh.nhs.uk
	West Cumberland (tel: 01946 693 181)	Dr Roderick Oakes (Mon-Weds) Dr Chris Tiplady		Roderick.Oakes@ncuh.nhs.uk Chris.Tiplady@northumbria-healthcare.nhs.uk	Roderick.oakes@nhs.net christopher.tiplady@nhs.net	
	Co. Durham & Darlington	University Hospital of North Durham (tel: 0191 333 2333)	Dr Fiona Keenan Dr Adil Iqbal Dr Ulaganathan Sudalaiyandi	Fiona.Keenan@cddft.nhs.uk Adil.Iqbal@cddft.nhs.uk	Fiona.keenan@nhs.net adil.iqbal@nhs.net	
			Darlington Memorial Hospital (tel: 01325 380 100)	Dr Phillip Mounter Dr Mohsen Mahmoud Dr Ulaganathan Sudalaiyandi	phillip.mounter@cddft.nhs.uk Mohsen.Mahmoud@cddft.nhs.uk	phillip.mounter@nhs.net m.mahmoud@nhs.net ulaganathan.sudalaiyandi@nhs.net
	South of Tyne	Sunderland Royal (tel: 0191 565 6256)	Dr Scott Marshall Dr Susanna Mathew Dr Victoria Hervey Dr Yogesh Upadhye Dr Shikha Chatterjee Dr Hana Beshti	susanna.mathew@chs.northy.nhs.uk victoria.hervey@chs.northy.nhs.uk Yogesh.Upadhye@chsft.nhs.uk shikha.chatterjee@chsft.nhs.uk hana.beshti@chsft.nhs.uk	scott.marshall3@nhs.net yogesh.upadhye@nhs.net shikhachatterjee@nhs.net	
			Queen Elizabeth Gateshead (tel: 0191 482 0000)	Dr Annette Nicolle Dr Geoff P Summerfield (part time) Dr Yogesh Upadhye Dr Scott Marshall	annette.nicolle@ghnt.nhs.uk geoffrey.summerfield@ghnt.nhs.uk	annette.nicolle@nhs.net geoffrey.summerfield1@nhs.net yogesh.upadhye@nhs.net scott.marshall3@nhs.net
South Tyneside (tel: 0191 404 1000)			Dr Mike Galloway Dr Susanna Mathew Dr Victoria Hervey	Mike.Galloway@stft.nhs.uk susanna.mathew@chs.northy.nhs.uk victoria.hervey@chs.northy.nhs.uk	mike.galloway@nhs.net	
Tees	James Cook Univ. Hosp. (tel: 01642 850 850)	Dr Dianne Plews Dr Angela Wood Dr Ray Dang Dr Jamie Maddox Dr Marianna David Dr Mohsen Norouzi Dr Rajesh Mamadigi	diane.plews@stees.nhs.uk angela.wood@stees.nhs.uk Ray.Dang@stees.nhs.uk jamie.maddox@stees.nhs.uk marianna.david@stees.nhs.uk mohsen.norouzi@stees.nhs.uk rajesh.mamadigi@stees.nhs.uk	ray.dang@nhs.net jmaddox@nhs.net mariannadavid@nhs.net mohsen.norouzi@nhs.net rajesh.mamadigi@nhs.net		
		North Tees / Hartlepool (tel: 01642 617 617)	Dr Maria Szubert Dr Khalid Hassan Dr Padmaja Lokireddy	maria.szubert@nth.nhs.uk khalid.hassan@nth.nhs.uk padmaja.lokireddy@nth.nhs.uk	maria.szubert@nhs.net khalid.hassan4@nhs.net padmaja.lokireddy@nhs.net	

list last updated - Gavin Cuthbert 08.06.2015