



Western Health and Social Care Trust Cytopathology Laboratory Manual

**To be used for Cervical and Diagnostic
Cytology (Non-gynaecology) referrals to
the:**

**Cytopathology Laboratory
Altnagelvin Hospital
Glenshane Rd
Londonderry
Co. Londonderry
BT47 6SB**



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1.0 INTRODUCTION

The Cytopathology Laboratory for the Western Health and Social Care Trust (WHST) is located in the Main Laboratory Building at Altnagelvin Hospital. The Laboratory's role is to provide gynaecological and diagnostic cytopathology and andrology analysis serving both Consultant and General Practitioners within the WHST. The service also covers both private and Cross Border service users. For Andrology please refer to separate user manual CELLPATH/MAN/001.

2.0 LOCATION AND USEFUL CONTACTS

The Laboratory is located on the first floor of the Laboratory/ Pharmacy Building in the South wing of the Altnagelvin Hospital (see building number 22 on the site map shown in appendix 1). Our full postal address is:

Cytopathology Laboratory
Altnagelvin Hospital
Glenshane Road
Londonderry
Co. Londonderry
BT47 6SB

Telephone: 028 71345171
Fax: 028 71611349

The names and telephone numbers of the Consultant Pathology staff are given below. The telephone numbers for their staff have also been provided.

Table with 2 columns: Staff Name/Role and Ext. Includes Dr I Cameron, Dr K Mulholland, Dr I Diegbe, Dr M McKenna, and Dr. C. Flynn.

The BMS Cytopathology Service Manager details are given below:
Ms Nora McDonald Ext 213975
Email nora.mcdonald@westerntrust.hscni.net

BMS Section Lead staff details are given below:
Danielle Conway: Cervical Cytopathology Ext. 213449
Email danielle.conway@westerntrust.hscni.net



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Isobel O'Donnell: Diagnostic Cytopathology Ext. 213449
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Dr. Mary McMenamin: Molecular/Research Ext. 213978
Email mary.mcmenamin2@westhealth.n-i.nhs.uk
The Laboratory Failsafe/ Audit officer details are given below:
Mrs Sarah Ross-Lyttle Ext. 213410
Email sarah.ross@westerntrust.hscni.net

Other useful telephone numbers are given below:

Main Laboratory Ext 213403
Cytopathology Office for Result Enquiries Ext 213409/213412

3.0 CLINICAL SERVICE

The Laboratory provides a fully ISO 15189 accredited service. It is the aim of the Cytopathology Laboratory to maintain the highest of professional and service standards to clinicians and patients. The laboratory operates Quality Assurance policies and participates in National Accreditation and Quality assurance policies. In addition, there are internal quality control and audit procedures.

The Laboratory works to the Northern Ireland Cervical Screening Programme (NICSP) guidelines and all Consultant Pathology staff are members of the Royal College of Pathologists. BMS screening staff are fully HPC registered and hold the NHSCSP Certificate of Competence in Cervical Cytopathology.

The majority of the gynaecological cervical smear tests are requested by WHSCT GPs and from Out-Patient users across the Trust's catchment area while private/ cross border users also avail of the service. Diagnostic cytopathology tests are requested by In/Out-Patient users and GP users across the Trust's catchment area.

Samples can be sent to the laboratory via VTS/portering staff or Trust transport as per the Heath Centre / Hospital / clinic / ward protocol.

The Cytopathology Laboratory is open from 08:00 hrs to 19:00 hrs Monday to Friday, 08.00 hrs – 12.00 hrs Saturday. The laboratory is closed on Sunday and on Bank Holidays.

As no on-call service is available, except by special agreement, all samples (except cervical smears) taken outside these hours must be stored appropriately. Diagnostic cytopathology samples must be refrigerated if they are in a Sodium Citrate container, a sterile universal or a sputum container. Samples in Cytolyt and PreservCyt solutions can be stored at room temperature. Please ensure that

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diagnostic cytopathology samples are sent in the correct container. **Please note that samples not stored correctly or sent in the appropriate containers may have limitations to the final diagnosis.**

In unforeseen circumstances there is a Consultant Pathologist on-call who can be reached by contacting the main Altnagelvin Hospital switchboard.

All biological samples represent a potential health hazard to healthcare staff therefore, it is important to ensure that samples are properly sealed before transportation. Containers should not be overfilled as they tend to leak and obviously leaking containers should not be sent to the laboratory under any circumstances. All samples must be placed in the self-sealing bag attached to the relevant request form.

Any samples with suspected Hazard Group 3 must carry the "Hazard Group 3" label. These include Hepatitis B and C, TB, HIV, Pneumocystis. In accordance with Trust policy they must **not** be sent via VTS within the hospital and must be delivered by hand to the main laboratory reception.

Clinical Advice and interpretation of cervical and diagnostic cytopathology samples can be given by the Pathologists by contacting them on the relevant extension number between 9.00 am – 5.00 pm, Monday to Friday.

The Laboratory follows the Code of Practice on Protecting the Confidentiality of Service User Information.

A Guide to the Complaints Procedure is available on the Western Health & Social Care Trust website.

3.1 Gynaecological Samples**3.1.1 Cervical Smears**

The Laboratory uses liquid based cytopathology for cervical cytopathology. Users must use the correct request form to request a test (see appendix 2). It is essential to record the patient's full name, address, date of birth, H&C number and the name of the requesting clinician on the request form and the LBC vial used (use cypher codes if available). Patient clinical details including LMP, current treatment and details of previous Cytopathology or Histopathology investigations must also be recorded on the request form along with the reason for smear, source of smear, condition of cervix, condition of patient and type of smear information.



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Failure to provide this information and/ or incorrectly labelled samples will be returned to the requestor for correction which may delay test results.

The current LBC system in use is ThinPrep and the method is as follows: Record patients information as described above. Insert a green cervix brush into the endocervical canal deep enough for the shorter bristles to fully contact the ectocervix. Maintaining pressure against the ectocervix, rotate the brush in a **clockwise** direction **five** times. Rinse the cervix brush immediately into the PreservCyt solution vial by pushing it into the bottom of the vial **ten** times, forcing the bristles apart. Finally, swirl the brush vigorously to further release material. Once completed, discard the collection device. Tighten cap onto the vial so that the black torque line on the cap just passes the black torque line on the vial.

Out of date vials or samples arriving in the laboratory more than 6 weeks from date taken **CANNOT** be processed. **Out of date sample containers must be returned to the Cytology Laboratory for disposal.**

If vial is spilt **DO NOT** top up; and indicate same on request form or contact the laboratory.

A training DVD was issued to all smear takers. Copies can be obtained from the Laboratory on request by contacting the Laboratory Manager.

Like most clinical tests, cervical cytology has limitations and the NHSCSP website advises that "*The process is not perfect and in every screen there are a number of false positives and false negatives.*"¹ Altnagelvin Cytopathology laboratory sensitivity of cervical cytology for all cervical abnormalities is 95%.

CINtec PLUS Cytology is an immunostain which is used by the laboratory as an adjunct to cervical cytology and is conducted on selected samples to aid diagnosis. In women aged <25 years, where HPV testing is not recommended, the test is used for colposcopy triage.

Samples can be sent to the laboratory via VTS/portering staff or Trust transport as per the clinic/wards current protocol. Samples from GP practices, Tyrone County Hospital, North West Independent Hospital and the South West Acute Hospital should be transported to the main laboratory reception on the ground floor by van. Samples being sent to the laboratory from within Altnagelvin Hospital should be sent by

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the VTS system or brought to the main laboratory sample reception by relevant staff.

3.2 SPECIMEN REQUIREMENTS FOR HPV TESTING

Cervical samples may be tested for High Risk HPV genotypes to triage women with borderline cytology and mild dyskaryosis results, who test positive for HPV for immediate colposcopy. HPV testing is also used as a test of cure for women treated for CIN to verify treatment success. Further information on HPV testing can be obtained from the laboratory or contacting the Public Health Agency at 02890311611.

Cervical specimens for HPV testing, collected in PreservCyt® Solution, must be transported and stored at 2-30°C for a maximum of 6 months after date of collection. Transport specimens in a sample bag with a press lock seal and then put each into a large pathology transport bag. This outer bag should contain an absorbent pad. Seal the top of the pathology transport bag and place it into a HPV samples transport box provided by the testing laboratory (see figure 1).

Samples for testing must meet the following requirements:

- a) Delivered in the correct container i.e. LBC vial
- b) Must not have leaked in transit
- c) Must contain a minimum of 4mls
- d) Vials must be labelled with patient's full name, date of birth, H&C number and unique laboratory identification number.
- e) Must be accompanied with test request paperwork (see figures 2a, 2b and 3)
- f) LBC samples that have >2% blood contamination (dark red or brown colour) may lead to false-negative results; therefore these samples will be lysed with glacial acetic acid (GAA) before HPV testing



Figure 1: Specimen Transport Box

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HPV test requests from referring laboratories are sent via WHSCT HPV test email account using the standard Excel format for HPV requests (Figures 2a, 2b) and as a hard copy accompanying sample vials. All computers and email accounts within the WHSCT are password protected.

Lab No sent by BCH	Date sent by BCH	Sent by (BCH)	Lab No. received by ALT	Date received by ALT	Received by (ALT)	Date HPV test by ALT	Tested by
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					
312-----	10/11/2012	JS					

Figure 2a: Excel format for samples sent by satellite Laboratories to the HPV testing laboratory at Altnagelvin Hospital

Lab No sent by BCH	Date sent by BCH	Sent by (BCH)	Lab No. received by ALT	Date received by ALT	Received by (ALT)	Date HPV test by ALT	Tested by
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar
312-----	10/11/2012	JS	312-----	11/11/2012	JW	11/11/2012	Mar

Figure 2b: Excel format for returned HPV request forms after samples have been HPV tested by the HPV testing laboratory at Altnagelvin Hospital

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Date Requested	Requested By	HPV test request by Pathol/Screenener (SCAN FORM)	Sample Retrieved (SCAN VIAL)	Sample Retrieved by	Date Sample Retrieved	Sample Received for HPV Testing (SCAN VIAL)	Date HPV Tested	Tested by
03/09/18	MMK	222222	222222	BD	03/09/18	222222	03/09/18	ROK
03/09/18	MMK	333333	333333	BD	03/09/2018	333333	03/09/18	ROK
03/09/18	MMK	444444	444444	BD	03/09/2018	444444	03/09/18	ROK
03/09/18	MMK	555555	555555	BD	03/09/2018	555555	03/09/18	ROK

Figure 3: In house (Altnagelvin and Biomnis) HPV test requests must be completed on the EXCEL HPV Test Request database on the Cytopathology Z/Y Drive. The HPV test request must contain the LBC vial number and the name of the person requesting the HPV test.

HPV test results are automatically, electronically uploaded to LabCentre. Biomnis HPV request test results are returned as hard copies. All samples should be HPV tested within 3 working days.

The sensitivity of HPV testing for high-grade CIN in women with borderline cytology and mild dyskaryosis results is widely reported to be >95%.²

3.2.1 Vaginal Self-Samples for HPV Testing

Within the Northern Ireland Cervical Screening Programme (NI CSP), women with a learning disability and women who are unable to tolerate smear collection are often under or never screened. Following requests from GPs and Colposcopists regarding options for cervical screening in these populations; the Cytopathology Laboratory at Altnagelvin Hospital now offers:

Vaginal self-sampling for HPV detection

On request from a GP or Colposcopist, the laboratory will post a vaginal self-sampling device with instructions and request form (see appendix 4.) to the Clinician. To ensure that self-sampling is carried out correctly by patients with a learning disability, we recommend that the sample is collected under the guidance or, if necessary, in the presence of a practice/colposcopy nurse or the patient’s carer. The labelled sample and request form should be returned to the Cytopathology laboratory by the GP practice or Colposcopy clinic.

Self-collected vaginal samples can be tested for the presence of HPV. Women who test HPV positive have an increased risk of cervical lesions that if left untreated could lead to cervical pre-cancer and cervical cancer. If the patient tests HPV positive she should be advised to

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attend the GP practice to have a routine cervical screening test (smear test). If the patient tests HPV negative she should be advised that she does not require further investigation at this time. Colposcopists should manage their patients according to their local protocols. Cervical screening at the next routine screening round will still need to be considered for these patients as per normal practice.

Vaginal self-sampling has demonstrated sensitivity to detect cervical disease equal to physician-collected samples.³⁻⁶

3.3 Diagnostic Cytopathology Samples

Users should use the correct request form to request a test (see appendix 3 for general non-gynae samples and appendix 5 for thyroid FNA samples taken inultrasound). Request forms can be obtained from the Cytopathology laboratory or from laboratory reception in SWAH.

It is essential to provide:

- a) Patient's surname;
- b) H&C number;
- c) Name of the referring Clinician/GP (cypher codes can be used if available);
- d) Nature of sample;
- e) Any accompanying slides/sample containers must also be appropriately labelled with patient details to include the patients' name in the case of slides and a minimum of patient surname, date of birth and H&C number in the case of sample containers;
- f) The sample containers must be within their expiry date, an exception may be granted in some cases if samples could not be repeated.
- g) All forms should be dated and signed. Date sample taken (particularly important for CSF samples and fluid/urine samples sent in universals instead of the containers recommended by the laboratory).

It is important to include any previous Histopathology or Cytopathology investigations and reference numbers if available.

Failure to comply with these criteria can result in sample/request forms being returned to the requestor for correction which may delay test results. For samples within Altnagelvin hospital these may be returned via the VTS system or the ward/clinic may prefer to send a member of the portering staff to collect the sample from laboratory reception. A FSM form (CELLPATH/FORM/040 – Cellular Pathology FSM Form) accompanies the sample to indicate the reason why the sample is being returned.

Samples can be sent to the laboratory via VTS/portering staff or Trust transport as per the clinic/wards current protocol.

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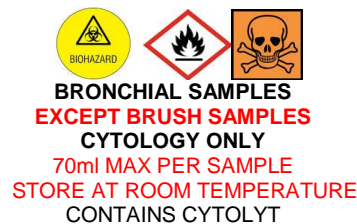
Always check the expiry date of sample containers containing solutions prior to use. If the container is dried out or there is any discolouration of the clear fluid – do not use. Any samples sent in out of date containers (if processed) may have limitations to the final diagnosis. Out of date sample containers must be returned to the Cytology Laboratory for disposal.

3.3.1 Respiratory samples**A) Sputum**

Early morning deep cough samples should be sent on 3 different days. These should be collected before the patient has eaten or brushed their teeth so as to prevent contamination of the sample. Samples should be sent in a wide mouthed sputum pot immediately on collection each day and not accumulated over the 3 days. Any samples collected outside normal Laboratory hours must be refrigerated until they can be sent to the Cytopathology Laboratory.

B) Trap sputum /Bronchial washings/ Bronchoalveolar lavage/ Transbronchial needle aspirate

These samples must be collected into a blue top container containing CytoLyt with the following label:



BATCH: EXPIRES:

It is extremely important that these samples are correctly labelled especially if multiple samples from different sites are submitted, it is advisable to indicate the different sites on the sample containers as well as on the request form especially if included in the same sample bag attached to one request form e.g. transbronchial nodes.

A maximum of 70ml per sample pot can be sent for analysis, more than one pot may be sent ensuring that they are correctly labelled.

Blue top containers containing CytoLyt can be obtained from the Cytopathology Laboratory on ext. 213403.

C) Bronchial brushings

If a disposable bronchoscopy brush has been used, the distal part of the brush's wire stem is cut and the brush placed into a universal container containing CytoLyt with the following label:

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BRUSH SAMPLES ONLY

CYTOLOGY FIXATIVE

Contains CYTOLYT

STORE AT ROOM TEMPERATURE

BATCH:

EXPIRES:

It is important to unsheathe the brush prior to immersion in Cytolyt to ensure optimal fixation. The sheath can be placed on the wire above the brush and placed in the Cytolyt along with it. It is extremely important that these samples are correctly labelled especially if multiple samples from different sites are submitted. It is advisable to indicate the different sites on the sample containers as well as on the request form especially if included in the same sample bag attached to one request form.

Containers for bronchial brushes which contain Cytolyt can be obtained from the Cytopathology Laboratory on ext 213403.

D) Pneumocystis analysis

Where samples are taken for suspected Pneumocystis infection these must be collected in a sterile container e.g. sputum container. Sputum or bronchoalveolar lavage samples are the best type of samples to send for investigation.

These samples are sent to the Regional Virus Laboratory in the Royal Victoria Hospital for PCR testing.

3.3.2 Fluid samples**A) Serous fluids (peritoneal, pleural, pericardial)**

These samples must be collected in body fluid containers containing sodium citrate with the following label:

**FOR BODY FLUID
CYTOLOGY & FNA WASHINGS
DO NOT USE FOR CSF SAMPLES**

Contains 3.8% Sodium Citrate

Do not use if bottle is dry or if fluid is no longer clear. Store in the fridge.

BATCH:

EXPIRES:

These bottles must be stored in a fridge until use. Any samples collected outside normal laboratory hours must be refrigerated until they can be sent to the Cytopathology Laboratory.

A minimum of 20ml up to 100ml (approximately 4 containers) can be sent to the Cytopathology Laboratory for analysis. **To ensure a minimum of 20 ml of sample for evaluation please fill containers to rim below lid.**

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Do not send drain bags as these will not be processed as they pose a H&S risk to staff working with them and therefore will be returned to the ward for transfer into the correct containers, which may delay test results. These also pose a potential H&S risk to staff involved in transporting them and this should be avoided at all costs.

Containers for body fluids can be obtained from the Cytopathology Laboratory on ext 213403.

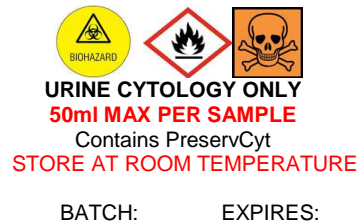
B) Cyst and other fluids

Treat as for serous fluids.

C) Urology Samples

a) Urine

A sample of voided urine collected mid-morning is required for cytological examination. Early morning samples are of little value as these show marked cellular degeneration. Samples to be sent to the laboratory in urine containers containing PreservCyt with the following label with a red dot on the container lid:



If the requestor does not have PreservCyt containers then sterile universal containers may be used. **Boric acid (red cap) containers must not be used.**

A maximum of 50ml (2 containers) per sample can be sent for analysis.

Please state on the request form if the patient has been catheterised, has had any form of instrumentation, has stones in the urinary tract or is on any form of chemotherapy or relevant treatment.

b) Renal/Bladder/Ureteric washings

All washings should be submitted in containers containing PreservCyt as with urines above. All of the sample should be submitted for analysis. It is extremely important that these samples are correctly labelled especially if multiple samples from different sites are submitted. It is advisable to indicate the different sites on the sample containers as well as on the request form especially if included in the same sample bag attached to one request form.

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Containers for urology samples can be obtained from the Cytopathology Laboratory on ext. 213403.

D) CSF

Only those fluids requiring investigation for malignant cells should be sent to the Cytopathology Laboratory. The aspirated fluid should be placed in a sterile universal container and dispatched immediately to the laboratory. Store refrigerated as this may help preserve cells for up to 24 hours if a delay in transport is anticipated or these are taken at the weekend.

A 2 ml sample is usually sufficient for cytological examination.

E) Synovial (joint) fluids

Only those fluids requiring investigation for malignant cells will be processed by the Cytopathology Laboratory. For this examination a joint fluid should be submitted in a sterile universal container.

If examination for crystals is required then the sample should be placed in a sterile universal container and sent to the Bacteriology Laboratory, Royal Victoria Hospital for analysis.

For a differential WBC count and/or O+S investigation, then a separate sample should be sent in a sterile universal container to the Microbiology Laboratory, Altnagelvin Hospital with the appropriate request form.

For investigation of Rheumatoid arthritis a clotted blood sample should be sent to the Microbiology Laboratory, Altnagelvin Hospital with the appropriate request form. The Microbiology Laboratory can be reached on ext 214017.

3.3.3 Fine Needle Aspirates (FNA)**A) Protocol for FNA samples (except Breast FNA)**

Primarily LBC (Liquid Based Cytopathology) ThinPrep® is the methodology used in diagnostic cytopathology. In order for this to be optimally diagnostic, FNA samples should be aspirated (gently) into specific universal containers containing Sodium Citrate preservative, with the following label:



**FOR BODY FLUID
CYTOLOGY & FNA WASHINGS
DO NOT USE FOR CSF SAMPLES**

Contains 3.8% Sodium Citrate

Do not use if bottle is dry or if fluid is no longer clear. Store in the fridge.

BATCH:

EXPIRES:

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Ensure that any material in the hub of the needle is aspirated out. **DO NOT SEND NEEDLES.**

If aspirating from more than one site please use different sodium citrate containers ensuring that they are labelled accordingly. These bottles must be stored in a fridge until use. Any samples collected outside normal laboratory hours must be refrigerated until they can be sent to the Cytopathology Laboratory. If a sample is taken later in the day (after 7 pm) it can be kept in the fridge at source and sent to the lab the following morning.

Whilst slides can be made at the time of procedure these are not checked for adequacy and can prohibit ancillary testing often vital in establishing a diagnosis, particularly of malignancy (see section B below).

As a result of these changes cytopathology laboratory staff will no longer be attending Clinics/Wards for FNA procedures. For any clinics/wards that use the syringe holder these can be ordered from Morton Medical UK e.mail sales@mortonmedical.co.uk, Product code 391-946-E, Cameco universal (10ml and 20ml) syringe pistol/gun.

To obtain sample containers containing Sodium Citrate please contact the Cytopathology Laboratory on ext. 213403. These containers can also be obtained from SWAH lab reception.

B) FNA slides from wards/clinics

FNA slides must be labelled with patient's name and if possible with date of birth/hospital number/H&C number using pencil. Spread sample evenly and allow to air dry. Do not aspirate too much material on individual slides as this may affect staining and hence final diagnosis. Any remaining sample should be aspirated into a Sodium Citrate container labelled '*For body fluid cytopathology and FNA washings*'. Material in a Sodium Citrate container should always accompany slides as this allows for ancillary testing. To ensure enough material is obtained another pass may be required which is then aspirated into the Sodium Citrate container.

To obtain advice and/or sample containers containing Sodium Citrate, slides or slide holders please contact the Cytopathology Laboratory on Ext. 213403.

Please contact the laboratory at least 30 minutes prior to the procedure to ensure that the materials can be dispatched in time.

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C) Breast FNAs

The majority of these FNAs are carried out at the specified symptomatic or screening breast clinics.

Breast FNA slides made at any other clinic/ward please aspirate sample onto a labelled slide, spread evenly and allow to air dry. Do not aspirate too much material on individual slides as this may affect staining and hence final diagnosis.

Send in slide holders with the request form to the cytopathology laboratory as per clinic/wards current protocol.

If a cyst fluid is aspirated treat as for serous fluids.

3.2.4 Common Bile Duct brushings

If a disposable brush has been used, the distal part of the brush's wire stem is cut and the brush placed into a universal container containing Cytolyt with the following label:



It is important to unsheath the brush prior to immersion in Cytolyt to ensure optimal fixation. The sheath can be placed on the wire above the brush and placed in the Cytolyt along with it.

Containers for common bile duct brushings which contain Cytolyt can be obtained from the Cytopathology Laboratory on Ext. 213403.

3.3.5 Samples for flow cytometry

A) Fine needle aspirate (node) washings (mainly Breast Screening Unit)

These samples should be aspirated into a flow cytometry container (containing pink solution – for haemato-oncology) and sent to the Haemato-oncology laboratory on Floor C, BCH, for the attention of Gary Beattie. They should be accompanied by a fully completed request form, ideally a haematology one but a non-gynaecological request form on occasion may be used. If a non-gynaecological form is used it is **essential** to highlight that the sample is for flow cytometry. The containers can be obtained from the Haematology Laboratory on ext. 213403.

Aspirates should **not** be carried out on Friday afternoon or prior to a Bank Holiday as the samples need to be received by 3 pm as this is

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the latest time for completion of test. Samples are viable for 24 hrs only and once taken are stored at room temperature.

Please liaise with the Haemato-oncology laboratory for further advice on 02895040913.

B) Serous fluid samples (pleural, peritoneal, pericardial)

These samples should be placed in a purple top EDTA container and sent to the Haemato-oncology laboratory on Floor C, BCH, for the attention of Gary Beattie. They should be accompanied by a fully completed haematology request form but non-gynaecology request form on occasion may be used. If a non-gynaecological form is used it is **essential** to highlight that the sample is for flow cytometry. The containers are stored in the wards/clinics.

Aspirates should **not** be carried out on Friday afternoon or prior to a Bank Holiday as the samples need to be received by 3 pm as this is the latest time for completion of test. Samples are viable for 24 hrs only and once taken are stored at room temperature.

C) CSF SAMPLES



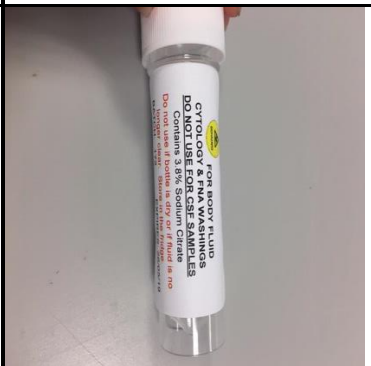
These should **NOT** be placed in flow cytometry solution but sent in a sterile universal and sent to the Haemato-oncology laboratory on Floor C, BCH, for the attention of Gary Beattie. They should be accompanied by a fully completed haematology request form but non-gynaecology request form on occasion may be used. If a non-gynaecological form is used it is **essential** to highlight that the sample is for flow cytometry. The containers are stored in the wards/clinics.

Aspirates should **not** be carried out on Friday afternoon or prior to a Bank Holiday as the samples need to be received by 3 pm as this is the latest time for completion of test. Samples are viable for 24 hrs only and.




Please liaise with the Haemato-oncology laboratory for further advice on 02895040913.

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The table below provides information on what sample containers should be used and provides turnaround reporting time information.

SAMPLE	CONTAINER	COMMENTS	
Liquid Based Cervical Sample	ThinPrep Vial containing PreservCyt	ThinPrep consumable information obtained from Screenlink Healthcare, Phone: 0035314605270 e-mail: Orders@screenlink.net. Turnaround time 14 days or sooner if requested. Check expiry date. Out of date vials will not be processed and smear test to be repeated.	
Vaginal self-sample	Evalyn Brush; Rovers Medical Devices	Check expiry date. Turnaround time 1 week or sooner if requested.	
Cyst/ Other Fluids	<i>For Body Fluid cytology and FNA washings'</i> universal containing Sodium Citrate. Amount of fluid: All aspirated fluid should be sent.	Containers supplied by Cytopathology Laboratory on request. Keep in the fridge. Do not use if dried out or if fluid not clear. Check expiry date. Turnaround time 1 week or sooner if requested.	



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<p>Peritoneal /Pleural/ Pericardial Fluid</p>	<p><i>'For Body Fluid cytology and FNA washings'</i> universal containing Sodium Citrate</p> <p>Amount of Fluid: Minimum 20 ml (fill to below lid) up to 100ml (4 containers) per sample.</p>	<p>Containers supplied by Cytopathology Laboratory or SWAH laboratory reception on request. Keep in the fridge. Do not use if dried out or if fluid not clear. Check expiry date.</p> <p>Turnaround time 1 week or sooner if requested.</p>	
<p>Sputum</p>	<p>Sputum Container</p> <p>For Pneumocystis investigation see Bronchoscopy section</p>	<p>3-day series should be sent. 1 sample may be inadequate for diagnosis. Deep cough samples are required.</p> <p>Turnaround time 1 week or sooner if requested.</p>	
<p>Urology samples (Urines/renal/bladder/ureteric washings)</p>	<p><i>'Urine Cytology only'</i> universal container containing preservCyt</p> <p>Amount of Fluid: Max of 2 containers per urine sample (50ml).</p> <p>For washings complete sample to be sent</p>	<p>For urines early morning samples should NOT be used. Samples should be a mid-morning sample, uncontaminated by skin epithelium.</p> <p>Containers supplied by Cytopathology Laboratory on request Check expiry date.</p> <p>Turnaround time 1 week or sooner if requested.</p>	

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<p>Synovial Fluid</p>	<p>Sterile universal</p> <p>Crystal investigation: Sterile universal container only</p> <p>WBC count or O+S: Sterile universal container only</p>	<p>Investigation for malignant cells only.</p> <p>Turnaround time 1 week or sooner if requested.</p> <p>Investigation for crystals to be sent to: Bacteriology Department, Kelvin Building, Royal Victoria Hospital, Belfast, BT12 6BA</p> <p>Send to Microbiology Laboratory, Altnagelvin Hospital with appropriate request form.</p> <p>RA investigations are carried out on clotted blood samples. Send to the Microbiology Laboratory, Altnagelvin Hospital with appropriate request form.</p>	
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Cellular Pathology

<p>Gastrointestinal brushings</p>	<p><i>Brush sample only</i> <i>Cytology fixative'</i> universal containing Cytolyt</p>	<p>Unsheath brush prior to immersion in container.</p> <p>Containers supplied by Cytopathology Laboratory on request.</p> <p>Turnaround time 1 week or sooner if requested.</p>	
<p>CSF</p>	<p>Sterile universal container only</p>	<p>Only those fluids requiring investigation for malignant cells should be sent to the Cytopathology Laboratory. The aspirated fluid should be placed in a sterile universal container and dispatched immediately to the laboratory. Store refrigerated if a delay is anticipated.</p> <p>Turnaround time 1 week or sooner if requested.</p>	

Cellular Pathology

<p>Bronchoscopy</p>	<p>Blue topped container labelled '<i>Bronchial samples (except brush samples) Cytology only</i>' containing Cytot</p> <p><i>'Brush sample only Cytology fixative'</i> universal containing Cytolyt</p> <p>Pneumocystis investigation: Sterile universal/sterile container only.</p>	<p>Containers supplied by Cytopathology Laboratory on request.</p> <p>Turnaround time 1 week or sooner if requested.</p> <p>Unsheat brush prior to immersion in container.</p> <p>Containers supplied by Cytopathology Laboratory on request.</p> <p>Turnaround time 1 week or sooner if requested.</p> <p>Ideally sputum or bronchoalveolar lavage sample to be sent to: Regional Virus Laboratory, Kelvin Building, Royal Victoria Hospital, Belfast, BT12 6BA</p>	
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Cellular Pathology



<p>Fine Needle Aspiration Samples of Head and Neck, Lung and other deep samples.</p>	<p><i>'For Body Fluid cytology and FNA washings'</i> universal containing Sodium Citrate</p> <p>Amount of Fluid: All of aspirated fluid</p> <p>FNA slides from wards</p>	<p>FNA samples should be aspirated (gently) into Sodium Citrate container. Ensure that any material in the hub of the needle is aspirated out – do not send needles. If aspirating from more than one site please use different Sodium Citrate containers ensuring that they are labelled accordingly.</p> <p>Containers supplied by Cytopathology Laboratory or SWAH Laboratory reception on request. Keep in the fridge. Do not use if dried out or if fluid not clear. Check expiry date.</p> <p>Turnaround time 1 week or sooner if requested.</p> <p>Label slide(s) with patients name and date of birth/hospital number/H&C number. Aspirate sample onto the labelled slide, spread evenly and allow to air dry. Do not aspirate too much material on individual slides.</p> <p>Material in Sodium Citrate should always accompany slides as this allows for ancillary testing, as mentioned above.</p> <p>Containers supplied by Cytopathology Laboratory or SWAH Laboratory reception on request. Keep in a fridge. Do not use if dried out or if fluid not clear. Check expiry date.</p>	
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Cellular Pathology

		<p>Slides/slide holders supplied on request by the Cytopathology laboratory.</p> <p>Turnaround time 1 week or sooner if requested.</p> <p>Urgent FNA samples can be reported on same day by prior agreement with one of the Pathologists.</p> <p>Turnaround time 1 week or sooner if requested.</p>	
Breast FNA slides		<p>The majority of these FNAs are carried out at the specified symptomatic or screening breast clinics.</p> <p>Breast FNA slides made at any other clinic please aspirate sample onto a labelled slide, spread evenly and allow to air dry. Do not aspirate too much material on individual slides.</p> <p>Send in slide holders with the request form to the Cytopathology Laboratory as per clinics current protocol.</p> <p>If a cyst fluid is aspirated treat as for cyst fluids.</p> <p>Turnaround time 1 week or sooner if requested.</p>	

Cellular Pathology

<p>Flow Cytometry (needle aspirate)</p>		<p>Aspirate gently into flow cytometry container containing pink solution.</p> <p>Turnaround time the following working day by request - contact haemato-oncology laboratory on 02895040913.</p> <p>Do not take aspirates on Friday pm/prior to bank Holiday – sample viable for 24 hrs. Store at room temperature once sample in container. Latest time for receiving sample on Friday/prior to Bank Holiday is 3 pm.</p> <p>Send with completed Haematology/non-gynaecology request form inside a brown envelope clearly marked as Urgent sample addressed to Gary Beattie, Haemato-oncology laboratory, Floor C, BCH. Ensure if on non-gynaecological form that flow cytometry is highlighted.</p> <p>Containers obtained from Haematology laboratory on request.</p>	
<p>Flow Cytometry (serous fluids)</p>		<p>Fluid aspirated into purple top EDTA container. Containers available on wards/clinics.</p> <p>Turnaround time the following working day by request - contact haemato-oncology laboratory on</p>	

Cellular Pathology

<p>Flow Cytometry (CSF sample)</p>		<p>02895040913.</p> <p>Do not take aspirates on Friday pm/prior to bank Holiday – sample viable for 24 hrs. Store at room temperature once sample in container. Latest time for receiving sample on Friday/prior to Bank Holiday is 3 pm.</p> <p>Send with completed Haematology/non-gynaecology request form inside a brown envelope clearly marked as Urgent sample addressed to Gary Beattie, Haemato-oncology laboratory, Floor C, BCH. Ensure if on non-gynaecological form that flow cytometry is highlighted.</p> <p>Fluid aspirated into sterile universal.</p> <p>Turnaround time the following working day by request - contact haemato-oncology laboratory on 02895040913.</p> <p>Do not take aspirates on Friday pm/prior to bank Holiday – sample viable for 24 hrs. Store at room temperature. Latest time for receiving sample on Friday/prior to Bank Holiday is 3 pm.</p> <p>Send with completed Haematology/non-gynaecology request form inside a brown envelope clearly marked as Urgent sample addressed to Gary Beattie,</p>	
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Cellular Pathology

		Haemato-oncology laboratory, Floor C, BCH. Ensure if on non-gynaecological form that flow cytometry is highlighted. Containers available on wards/clinics.	
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PLEASE NOTE THAT ANY SAMPLES THAT DO NOT ADHERE TO THE ABOVE GUIDELINES MAY HAVE LIMITATIONS TO THE FINAL DIAGNOSIS.

Cellular Pathology**4.0 Urgent Samples**

Users must contact a specific Consultant Pathologist in the Cytopathology Laboratory before sending an urgent sample to the Laboratory (see page 3 for contact details). Users must make prior arrangements with a Consultant Pathologist before any urgent sample can be processed and reported. Failure to do so may delay test results.

5.0 REFERENCES

1. <https://www.gov.uk/guidance/cervical-screening-programme-overview>
2. www.healthcareimprovementscotland.org/his/idoc.ashx?docid=af3a4f50-5f26-4df8
3. Gynecologic Oncology, 105 (2007) 530-535
4. JAMA, 283 (2000) 81-86
5. Journal of Clinical Microbiology, 50 (2012) 3937-3943
6. International Journal of Cancer, 130 (2012) 1128-1135

Chandra, A *et al* The BSCC Code of Practice – Exfoliative Cytopathology (excluding gynaecological Cytopathology) *Cytopathology* 2009, **20** 211-223.

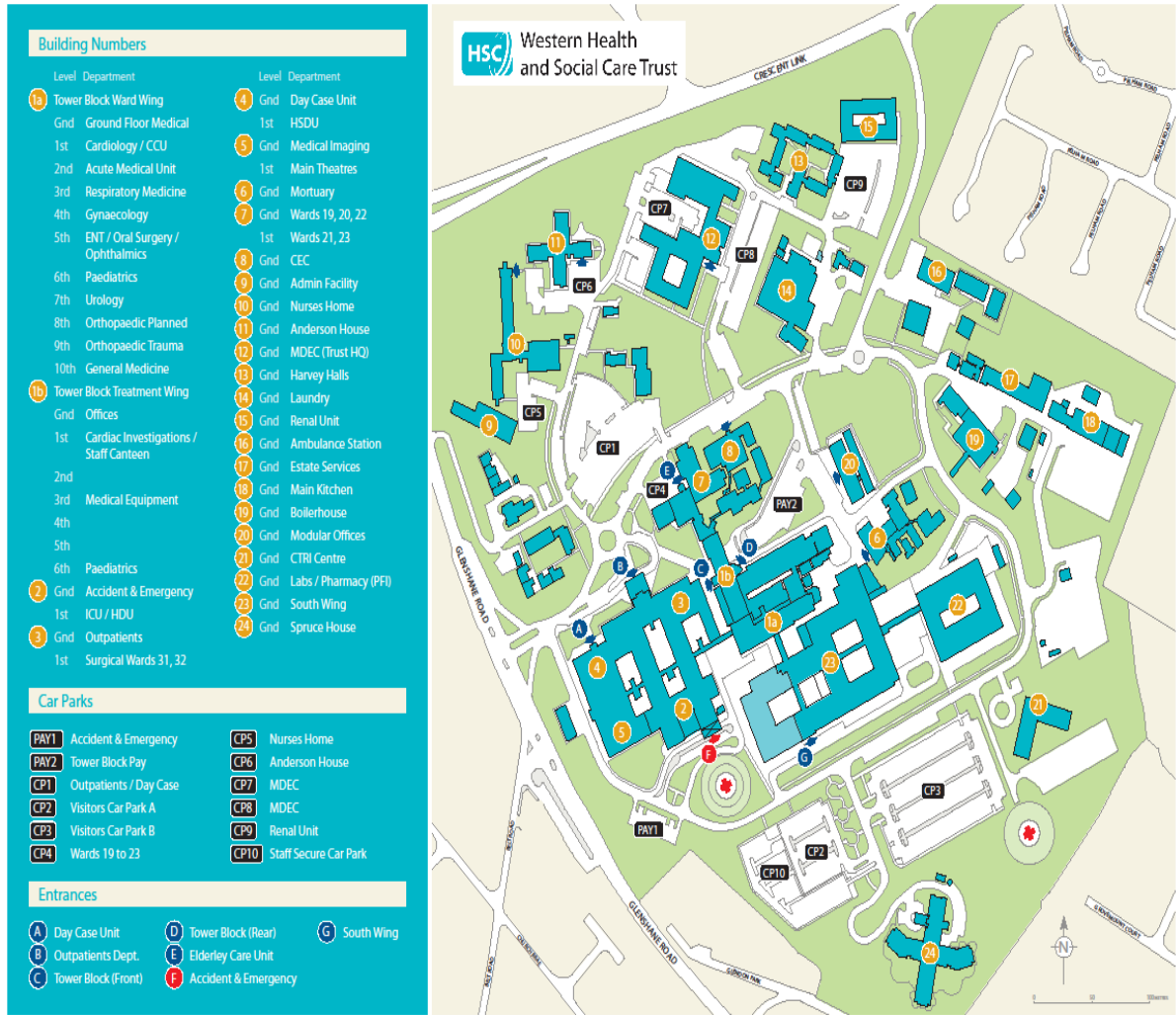
Health, Social Services and Public Safety: Code of Practice on Protecting the Confidentiality of Service User Information.

Western Health and Social Care Trust: A Guide to the Complaints Procedure.

Note: an active copy of this manual is held on the Cellular Pathology Q-Pulse document control system in accordance with CELLPATH/POL/004 Cellular Pathology Document Control Policy. The active version of this manual is also held on the WHSCT Intranet for user access.

Cellular Pathology

Appendix 1: Map of the Altnagelvin Hospital site.





Cellular Pathology

Appendix 2: WHSCT Gynae Referral form CR75

HOSPITAL REGISTRATION No.		CERVICAL CYTOPATHOLOGY ALTNAGELVIN H & S S TRUST		SLIDE SERIAL No.
SURNAME	PREVIOUS NAME	SOURCE OF SMEAR (Please circle)		DATE OF THIS TEST / /
FIRST NAMES	CHI No.:	1. GP	5. PRIVATE	LMP / /
ADDRESS	PRIVATE CLINIC / A&E No.:	2. COMMUNITY CLINIC	6. COLPOSCOPY	CONDITION (Please circle)
	POSTCODE	3. SUR CLINIC	7. OTHER	
DOB / /	CSA No.	4. HOSPITAL	REASON FOR SMEAR (Please circle)	
FILE / CLINIC No.	NAME & ADDRESS OF SENDER (if not GP) (Please give Hospital, Ward, Clinic etc.)	1. FIRST SMEAR		CONDITION OF CERVIX
NAME AND ADDRESS OF GP		2. CALL/RECALL SCREENING		
	GP CYPHER NUMBER	POSTCODE	3. REQUEST SCREENING	1. NORMAL
NO REPORT TO OWN GP <input type="checkbox"/>	NO SUMMARY RESULT LETTER TO WOMAN <input type="checkbox"/>	4. PREVIOUS INADEQUATE SMEAR		2. ERODED
		5. PREVIOUS ABNORMAL SMEAR		3. SUSPICIOUS
CR75		6. CLINICALLY INDICATED		SIGNATURE
7. FAMILY PLANNING		CLINICAL DATA (Symptoms & previous treatment, including hormone/medication therapy)		
PREVIOUS CYTOLOGY/HISTOLOGY REF.		LAB USE ONLY		
				P
				R
				Z



Cellular Pathology

Appendix 3: Copy of the WHSCT CR76 Non-Gynae Referral Form.

ALTNAGELVIN H & SS TRUST		CYTOPATHOLOGY NON-GYNAECOLOGICAL REQUEST FORM	
SURNAME:		NATURE OF SPECIMEN:	
FIRST NAME:			
D.o.B.:	CHI No.:		
HOSPITAL No:	PRIVATE CLINIC / A & E No.:		
WARD / ADDRESS:	GP CYPHER No.:		
CONSULTANT:			
Clinical Comment: (include all relevant data Gyn cases - please give menstrual data)		Lab. Ref. No.:	
		Previous Report No.	
		TICK AS APPROPRIATE N.H.S. <input type="checkbox"/> Non U.K. Patient <input type="checkbox"/> Private Patient <input type="checkbox"/> Cat. II Patient <input type="checkbox"/>	
		M.O. Signature	
CR 76		Date Sent	

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Appendix 4: WHSCT Self-sample for HPV Test Request Form



Lab. Ref. No: _____

Dept. of Cellular Pathology, Altnagelvin Hospital

SELF-SAMPLE FOR HPV TEST REQUEST

Affix addressograph or complete

Patient Name: _____

Address: *(inc postcode)* _____

DOB: _____ **H&C No:** _____

GP Name and Address: _____

Date of Test: _____ **LMP:** _____

LAB. USE ONLY

HPV Result: _____ **Tested By:** _____ **Authorised By:** _____
Date Date Date

CELLPATH/FORM/290

1.0

10/04/2018

Blank copies held in main Cytology Lab 01.046, completed copies held by Molecular Section Lead.

Important Information for the GP Practice

The sample should be collected under the guidance or, if necessary, in the presence of a practice nurse or the patient’s carer.

Please return the labelled sample and request form to: Department of Cellular Pathology, Altnagelvin Hospital, Glenshane Road, Londonderry BT476SB.

Patient HPV result will be issued to the GP as per normal practice.

If the patient tests HPV negative she can be advised that she does not require further investigation at this time. However, cervical screening at the next routine screening round will still need to be considered as per normal practice.

If the patient tests HPV positive she should be advised to attend her GP practice to have a routine cervical screening test (smear test).

For further information please contact: Mary McMenamin at the address above or email mary.mcmenamin2@westhealth.n-i.nhs.uk.



Cellular Pathology

Appendix 5: Copy of WHSCT Thyroid FNA ultrasound and cytopathology assessment request form



Lab. Ref. no.

THYROID FNA ULTRASOUND AND CYTOPATHOLOGY ASSESSMENT FORM

Patient name..... H&C no.....
Hospital no..... Consultant/ward.....
Date of Birth..... Aspirator.....
Address..... Signature.....
Date.....

General clinical impressions

Clinically suspicious Yes [] No [] If Yes give details.....

Previous thyroid FNA Yes [] No [] Not known []

If yes give reference number and diagnosis.....

Table with 3 columns: Type of nodule, Site, Nature. Rows include Solitary, Dominant nodule in MNG, Other nodule in MNG with checkboxes for Right lobe, Left lobe, Isthmus, Solid, Cystic, Mixed solid and cystic.

Maximum diameter (mm).....

US features

Microcalcification Yes [] No [] Not sure []

Level of ultrasound suspicion Low [] High [] Not sure []

U1 [] U2 [] U3 [] U4 [] U5 []

Comments.....

Enlarged cervical nodes Yes [] No []

FNA technique 23G [] 25G []

Number of passes.....

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Lab use only

Cytopathology Report Classification

- THY1
- THY1c
- THY2
- THY2c
- THY3a
- THY3f
- THY4
- THY5

Comments.....

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