



**Beaumont Hospital
Dublin**

**Department of Histopathology
incorporating Neuropathology,
Cytopathology and Renal Pathology**

USER MANUAL

Written By: S. Macken / M. Burke / J. Heffernan / R. Howley

Approved By: Pauline McGrath/ Dr. Christian Gulmann

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Disclaimer

The information provided in this user manual is correct at the time of writing, however as Histopathology / Neuropathology / Cytology are developing specialties, techniques, equipment and details of investigations may change.

The information provided is a broad guideline to the use of the most common requests. However medical and scientific staff in each specialty (Histopathology, Neuropathology, Cytopathology and Renal) are available to discuss any aspect of the service and individual patients in more detail.

Feedback

The User manual, including comments and suggestions. Any correspondence should be addressed to:

Chief Medical Scientist,
Histopathology Department,
Pathology Department,
Beaumont Road,
Dublin 9.
Phone: 01-8092353 / 314
Email: paulinemcgrath@beaumont.ie

Updates of User Manual

The Histopathology / Neuropathology / Cytology departments User Manual is also available on the Beaumont Hospital website at:

www.beaumont.ie

The User Manual will be updated on a biannual, basis and only the current Version is valid for use.

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1 INTRODUCTION

The Histopathology Department provides an extensive Histopathology service, including supporting the symptomatic breast service, urology and gastrointestinal units. The department provides a diagnostic Renal Pathology service in addition to supporting the renal transplant service, including an Out of Hours service. Electron Microscopy, Cytopathology (Gynae and Non-Gynae) and an Autopsy service are also provided by the Histopathology laboratory. The Non-Gynae Cytopathology service includes provision of assistance and support for the Fine Needle Aspirate service.

The Neuropathology section provides a diagnostic service for Neurosurgery and Neurology (including paediatric neurology and paediatric neurosurgery). A rapid intra-operative service is provided for the diagnosis of intracranial and spinal lesions including brain tumour. A range of investigations is available for the interpretation of muscle and nerve biopsies. In addition Neuropathology is the national centre for the CJD Surveillance Unit. A Neuropathology autopsy service is also available and provides pathologic diagnosis in a variety of conditions including dementia and other neurodegenerative disorders. A CSF cytology service is also provided.

Other diagnostic services are provided on a consultative basis and include CSF analysis for 14.3.3 protein and mitochondrial genetic studies.

2 HOURS OF SERVICE

2.1 Routine Hours of Service

The Laboratory hours Monday to Friday are **9.00am to 5.00pm**. The deadline for receipt of specimens is 5.00pm. The laboratory opens Saturday from **9.00am to 1.00pm**, with a deadline for receipt of specimens of 1.00pm.

2.2 Urgent Services

2.2.1 *Frozen Sections*

A frozen section service is offered between 09.00 – 17.00. Twenty Four hours notice should be given to the laboratory, prior to a frozen section. Frozen sections outside usual working hours may be provided by prior arrangement with the Consultant Pathologist – see Section 2.4 below on out of hours Service.

Specimens from patients with TB, HIV or Hepatitis B or C infection should not be sent for frozen section. If such a suspicion is present, the medical staff concerned must inform laboratory personnel in order to safeguard the laboratory staff from risk of infection.

In addition, if the laboratory inadvertently processes such specimens, a decontamination procedure of the equipment required for frozen sections must be carried out. Decontamination of this equipment takes 12 hours. During this time no further frozen sections can be performed.

Frozen section reports are delivered to theatre, usually via the intercom. A written report is available following subsequent routine processing of the specimen.

2.2.2 Other Urgent Specimens

Other **urgent specimens** are dealt with on an individual basis. The laboratory should be contacted directly with these requests in order to ensure that they are handled appropriately.

2.3 Out-of-Hours Service

The Histopathology Department provides an out-of-hours service for the Histopathology, Renal and Neuropathology services within the hospital. Arrangements must be made with the Consultant Histopathologist / Renal Pathologist / Neuropathologist on-call, who can be contacted through the switch at Beaumont hospital. A Medical Scientist on-call carries a long range bleep and can also be contacted via the switch. The services covered out of hours are:

- Baseline Renal Biopsies – assessment for Transplant suitability.
- Rapid Renal Biopsy.
- Histopathology Frozen Section.
- Histopathology Fresh Specimen - freezing for diagnostic and research purposes.
- Neuropathology Frozen Section.
- Neuropathology urgent specimen:
 - (a) for freezing e.g. muscle biopsy
 - or
 - (b) preparation of nerve biopsy for processing.
- Neuropathology CSF for 14.3.3 protein – freezing of sample.
- Neuropathology CSF preparation.

3 HOW TO CONTACT THE DEPARTMENT

Both the Histopathology / Cytopathology and Neuropathology departments are located on the ground floor past the out patient clinics.

The postal address of the Laboratory is:

Histopathology Department
Pathology
Beaumont Hospital
Beaumont Road
Dublin 9

Tel: 01 8092636 / 8092353

Fax: 01 8092955

Departmental e-mail address: histologydept@beaumont.ie

Neuropathology Department
Pathology

Beaumont Hospital
 Beaumont Road
 Dublin 9
Tel: 01 8092633
Fax: 01 8092955
Departmental e-mail address: neurodept@beaumont.ie

3.1 Histopathology Personnel

| Contact | Position | Telephone No. |
|---------------------------------------|------------------------------|---|
| Prof. Mary Leader | Consultant Histopathologist | 2628/ Bleep 246 |
| Dr. Derval Royston | Consultant Histopathologist | 2642 |
| Prof. Elaine Kay | Consultant Histopathologist | 2641/ Bleep 327 |
| Dr. Antoinette Grace | Consultant Histopathologist | 3705/ Bleep 798 |
| Dr. Anthony Dorman | Consultant Renal Pathologist | 2644/ Bleep 322 |
| Dr. Christian Gulmann | Consultant Histopathologist | 2078 |
| Registrars Office | | 2638/3435/ Bleep 448 |
| Ms. Pauline M^cGrath | Chief Medical Scientist | 3134 /Email: paulinemcgrath@beaumont.ie |
| Main Laboratory | | 2353 |
| Specimen Reception | | 2659 |
| Cytology Laboratory | | 2640 |
| Cytoscreeners' Room | | 3133 |
| Histopathology Office | | 2636/2632 |
| Dr. Eileen Campbell | Electron Microscopist /Renal | 2634 |

3.2 Neuropathology Personnel

| Contact | Position | Telephone No. |
|--------------------------------|-----------------------------------|------------------------|
| Prof. Michael Farrell | Consultant Neuropathologist | 2643/ Bleep 244 |
| Dr. Francesca Brett | Consultant Neuropathologist | 3143/ Bleep 324 |
| Ms. Maureen Burke | Senior Medical Scientist | 2633 |
| Ms. Josephine Heffernan | Senior Medical Scientist (CJD) | 2633 |
| Ms. Rachel Howley | Research Scientist | 2706/ 3798 |
| Neuropathology Office | | 2631 |

3.3 Reports

Printed reports are sent to the Clinical Consultant, source (wards / OPD) or requesting GP. Reports are available by phoning the Histopathology Office at 2632/2636 or the Neuropathology Office at 2631. Reports are not available in the laboratory. Unauthorized reports and any issues of clinical concern can be discussed with the registrar or consultant involved in the case.

4 SPECIMEN REQUIREMENTS FOR HISTOPATHOLOGY

The following is a guideline on the requirements of the various specimen types and the appropriate manner in which they should be delivered to the laboratory. This ensures the integrity of the specimen for laboratory investigations.

| Tissue Type | Fixative Required | Comment |
|--|--|---|
| Specimen for Frozen Section. | Send fresh to the laboratory - immediately. | 24 hours notice of Frozen sections should be given where possible. Contact the Histopathology Lab Ext 2353. Details supplied with the specimen must include a bleep number or theatre intercom to deliver report to. |
| Renal biopsies | Send in saline | Please inform Dr. Eileen Campbell - Renal Laboratory Ext. 3634 of specimen. The Main Lab can be contacted @ 2353 |
| Lymph nodes (for lymphoma diagnostics) | Send fresh to the laboratory - immediately. | Please supply all relevant clinical details. |
| Solid Tumours (Colon, Breast, Lung etc.) | Send fresh to the laboratory - immediately. | Please supply all relevant clinical details. |
| Liver biopsies | Where possible, send two specimens – one in 10% Neutral Buffered Formalin and one wrapped in saline moistened gauze. | Please supply relevant clinical details. |
| All other tissue | Send in 10% Neutral Buffered Formalin. | An adequate volume of formalin in a specimen container of suitable size is essential for proper fixation. The volume of formalin used should be at least twice the volume of the tissue to be fixed. Small specimens should be placed in biohazard bags. |

4.1 Factors Affecting Fresh/Unfixed Tissue Specimens

The techniques that are performed on fresh tissue are affected by the length of time that the tissue is removed from the patient before it is received for analysis. Therefore it is imperative that all tissue samples required to be sent fresh should be done so immediately. Fresh samples should be sent during normal working hours and the department must be informed in advance if a fresh sample is to arrive out of hours.

4.2 The following may be obtained from the Histopathology laboratory.

- Specimen containers – various sizes.
- 10% Neutral Buffered Formalin (in polycubes with taps).
- Pre-filled 60ml 10% Neutral Buffered Formalin containers.
- Histopathology/ Cytopathology/ Neuropathology / Renal Request Cards
- Slides and slide containers with fixative for Fine Needle Aspirates (FNAs).
- EM fixative.
- Liquid nitrogen for the Dermatology clinics.

SAFETY: Formalin is a potent eye and nasal irritant and can cause respiratory distress and allergic dermatitis. Gloves, goggles and aprons should be used when dealing with formalin. Contact the Histopathology Laboratory for any additional information that may be required and if a formalin spillage should occur.

Liquid nitrogen can cause cold burns and is dangerous to use in confined spaces as it is an asphyxiant. It can also shatter receptacles that are unsuitable for its storage. Subsequently it will only be given to Beaumont Hospital personnel and transferred into a suitable receptacle. Information on safety on any of the above may be obtained from Histopathology on request @ ext. 2353

4.3 Details Required for Each Specimen.

Regardless of the tissue type, the following essential information must be supplied **LEGIBLY**

On the BODY of the specimen container

- Name of patient.
- Date of Birth / Medical Record Number.
- If multiple specimens on the patient are taken, the specimen containers must be individually labelled as to the site of origin.

On the request form

- Name of patient (as per specimen container).
- Date of Birth / Medical Record Number (as per specimen container).
- Address of the patient
- Name of consultant of care or requesting GP.
- Source of origin (Ward/OPD).
- Date sample taken.
- Relevant clinical details.

All specimens received in the laboratory must be labelled with anatomical location of specimen as well as a minimum of two unique patient identifiers on both request form and specimen container. Unique patient identifiers include name, date of birth and hospital number.

The requesting clinician is responsible for the correct labelling of specimens and request cards. **Incorrectly or inadequately labelled specimens are not accepted by the laboratory and will be returned to the source of origin.**

4.4 Diagnostic Specimens Sent from GP's

These can be delivered directly to Pathology Specimen Reception or posted to the Histopathology Department. If diagnostic specimens in 10% formalin are **posted** the following guidelines and instructions must be adhered to:

These guidelines are applicable to the transport of infectious substances and diagnostic specimens both nationally and internationally. They provide information for identifying and classifying the material to be transported and for its safe packaging and transport.

The international regulations for the transport of infectious materials by any mode of transport are based upon the recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (UN), The Universal Postal Union (UPU), the International Civil Aviation Organisation (ICAO) and the International Air Transport Association (IATA) have also incorporated the UN Recommendations in their respective regulations.

1. The specimen should be placed in watertight containers containing 10% Neutral Buffered Formalin (volumes larger than 125ml should not be transported by post but hand delivered to the laboratory), the lid must be securely closed to avoid leakages. Patient's details entered on container and request form as above. Specimens must be packaged in a UN-approved packaging system (UN3373/4GU/**Class 6.2**/ 05 GB) which consists of three layers:
 - a) **Primary Receptacle:** a labeled primary watertight, leak-proof receptacle containing the specimen. The receptacle is wrapped in enough absorbent material to absorb all fluid in case of breakage.
 - b) **Secondary Receptacle:** A second durable, watertight leak-proof container to enclose and protect the primary receptacle(s). Several wrapped primary receptacles may be placed in one secondary receptacle. Sufficient additional absorbent material must be used to cushion multiple primary receptacles
 - c) **Outer Packaging:** The secondary container is placed in an outer shipping package which protects its contents from outside influences such as physical damage and water while in transit.
2. Both the recipient's and the sender's name and address must be shown on the packaging so that contact can be made in the event of a leakage.

Specimens should be addressed to the Histopathology Department.

4.5 Specimen Collection and Transportation

Porters transport specimens to the laboratory from the clinics and theatres. A logbook should accompany specimens and laboratory staff signs for the receipt of the specimen in the logbook. If no logbook accompanies the specimen(s), the Histopathology Specimen Reception holds a logbook to enter the patient/specimen details and both the person delivering and the laboratory staff must sign the logbook to record receipt of the specimen.

GP's can deliver specimens directly to the Histopathology Specimen Reception or the main Pathology Reception on the lower ground floor or can be added to the courier run for Beaumont Pathology department. Alternatively specimens can be posted to the laboratory, regulations for the packaging/postage of clinical specimens must be adhered to see Section 4.4 above.

Cervical smears are delivered from the family planning clinics by courier on Tuesday afternoons. The porters or nursing staff deliver cervical smears from in-house clinics. GP's can either deliver or post cervical smears to the Cytopathology laboratory in accordance with guidelines in the kit.

4.6 Turn Around Time for Results

The turn around time of specimens for Histopathology will vary depending on the nature of the specimen. The following is an outline of estimated turn around time for different specimen types from time of receipt in the laboratory:

Biopsies – 2-4 working days

Resections – 5-10 working days

Post Mortem Cases – 3-4 months

This is only a guideline and the complexity of a case and the requirement for further investigations may lengthen the turn around time. Results can be obtained from the Histopathology office, ext. 2636. The Consultant / NCHDs can be contacted to discuss individual patients.

5 CYTOPATHOLOGY

| Specimen | Specimen requirements |
|-----------------------------|---|
| Cervical smears ThinPrep | <ul style="list-style-type: none"> - Obtain an adequate sample from the cervix using the broom like device. - Rinse the broom as quickly as possible into the vial containing the PreserveCyt solution. Push the broom into the bottom of the vial 10 times forcing the bristles apart. Finally swirl the broom vigorously to further release material. Discard the collection device. - Tighten the cap until the torque line on the cap passes the torque line on the vial. - Record the patient's name and ID number/DOB on the vial. Record the patient information and medical history on the cytology request card. - Place the vial and request form in the specimen bag/box for transport to the laboratory. If specimens are to be posted follow guidelines given in the kit. <p>Training video available on request from the Cytopathology Laboratory by telephoning 01- 8093133.</p> |

| Specimen | Specimen requirements |
|--|---|
| Bronchial brushings | - Place material in a sterile container labelled with patient and specimen details, including the time of specimen collection. |
| Sputum | - Take a deeply coughed early morning specimen into a sterile container labelled with patient and specimen details. |
| Fluids (Pleural, Ascitic etc.) | - Place material in a sterile container labelled with patient and specimen details, including the time of specimen collection. - At least 20 mls of fluid is required for diagnosis. |
| Urine | - Total voided specimen is required for cytology. - The first morning specimen is not suitable. - Place in a container labelled with patient and specimen details. |
| Fine Needle Aspiration Cytology | - Laboratory personnel are available to help in the preparation of FNA samples. - Contact the laboratory to arrange this service (Ext. 2660). - Smears received from clinics made from FNA material must be labelled clearly with patient name and at least one other form of ID (MRN / DOB) with accompanying request form. Pencil must always be used when labelling slides. - Pathologists will perform FNA's on request. Contact Histopathology office at ext. 2636. |
| Cerebrospinal Fluid for Cytology. | - Specimen must be collected in a sterile container labelled with patient and specimen details and delivered to the Neuropathology laboratory. |

5.1 Items that can be Obtained from the Cytology laboratory

- Slides
- Slide holders
- Spray fixative
- Coplin jars of alcohol (Fixing FNA smears)
- Cervical cytology request forms
- ThinPrep kits for cervical smears
- Biohazard bags

5.2 Turn Around Times for Cytology Samples

Gynae Cytology Samples – 3-5 weeks

Non-Gynae Cytology Samples – 3-4 Days

6 NEUROPATHOLOGY

6.1 Specimen Requirements for Neuropathology

| Tissue Type | Means of Delivery to Neuropathology | Comment |
|--|--|--|
| Specimen for urgent frozen section | Send fresh. Hand deliver immediately. | The Neuropathology consultation form must include a bleep number or intercom number to deliver the report |
| Muscle Biopsy | Send on gauze that is <u>barely</u> dampened in saline. Do <u>not</u> fix in formalin. Hand deliver immediately. See Section 6.1.1 for requirements from external centres. | Must be received during normal working hours unless previously arranged. See Section 6.2 for further details. |
| Nerve Biopsy | Send on gauze that is <u>barely</u> dampened in saline. Do <u>not</u> fix in formalin. Hand deliver immediately. See Section 6.1.1 for requirements from external centres. | Must be received during normal working hours unless previously arranged. |
| Hippocampus & Amygdala | Send fresh. Hand deliver immediately to the laboratory. | |
| Temporal Lobe (Epilepsy) | Send fresh. Hand deliver immediately to the laboratory. | |
| Temporal Artery | Send in 10% Neutral Buffered Formalin. | |
| Skin Biopsy (CADASIL) | Send on gauze that is <u>barely</u> dampened in saline. Do <u>not</u> fix in formalin. Hand deliver immediately. | Must be received during normal working hours unless previously arranged. |
| Laminectomy/Disc | Send in 10% Neutral Buffered Formalin. | |
| Tumour fluid for cytology | Hand delivery immediately. | Must be received during normal working hours. |
| CSF for cytology | Hand delivery immediately. | Must be received during normal working hours. |
| CSF for 14.3.3 Protein | Hand deliver immediately in a biohazard bag. See Section 6.1.1 for requirements from external centres. | Must be received during normal working hours unless previously arranged. See Section 6.3 for further details. |
| Blood for Mitochondrial Disease Analysis | 10mls in EDTA tubes | See Section 6.4 for further details. Must be received during normal working hours. |

6.1.1 Requirements for External Centres

The responsibility for sending specimens lies with the external centre (Sender). Specimens must be pre-booked with the Neuropathology department (Tel. 8092633) in advance to enable the department to make arrangements should the sample arrive after hours. Ensure that packaging and transportation comply with current UN legislation.

Address the package to:
Neuropathology,
Beaumont Hospital,
Dublin 9

Include the Consignee address and telephone number. Record that the sample is an 'Urgent sample for Neuropathology'.

Confirm by contacting the Neuropathology department when the sample has been collected.

6.1.2 Results

Muscle Biopsies:

Laboratory tests on muscle biopsies are performed on a weekly basis due to the complexity of the techniques involved. Results are generally available in the Neuropathology office on the Friday or Monday following receipt of the sample.

CSF Samples for 14.3.3 Protein Analysis:

There is an approximate turn around of 10 days from receipt of the sample to results.

Blood and Tissues for Mitochondrial DNA Analysis:

Results are posted out to the relevant consultant within six weeks of receiving the sample.

Nerve Biopsies:

Results are available 3 – 4 weeks from specimen receipt.

Post Mortem Brains:

Results are available 4-6 weeks from specimen receipt.

6.2 Requirements / Factors Affecting Muscle Biopsies

6.2.1 Requirements

All investigations are performed on unfixed frozen tissue. Samples must be delivered to the lab on gauze that is barely dampened with saline as excess causes swelling and separation of fibres. This makes interpretation difficult. A muscle having grade 3/5 on MRC strength scale is best. A fatty muscle ('end-stage' biopsy) may have insufficient fibres for diagnosis.

The department must be informed in advance if a sample is being delivered after hours. Ensure a requisition form is properly completed to include clinical details

6.2.2 Specimen Size

An open biopsy is preferable to a needle biopsy especially if mitochondrial DNA (mtDNA) and protein analysis be required. A biopsy of at least 1.5 x 1x 1cm is ideal. This allows extra samples to be banked in case it is necessary to forward any to an external centre for further studies. Biopsies less than 0.5cu cm are insufficient for this purpose.

6.3 CSF Samples for 14.3.3 Protein Analysis

6.3.1 Requirements

The sample should be sent to the Neuropathology lab immediately after aspiration for freezing as sub optimal sample storage may give unpredictable results.

The sample volume should be between 2-5mls and be clear and colourless. The sample should have a **low white cell count**. Samples with a high white cell count i.e. greater than 20 are unsuitable as patients with CJD rarely have increased number of CSF white cells. **Please rethink the diagnosis if CSF white cell count is high.** Blood samples are not suitable for analysis. Blood stained samples will increase the chance of a false positive result as 14.3.3 protein is found in red blood cells.

6.3.2 Safety Precautions

TREAT ALL CSFs FOR 14-3-3 protein AS POTENTIALLY INFECTIOUS.
[See www.cjd.ed.ac.uk]

In the event of accidental leakage of the sample please contact the Neuropathology laboratory. There is **no immediate hazard to health** unless the sample is ingested or injected into the body. **Disposable gloves must be worn before attempting to handle the material.**

6.4 Requirements / Factors Affecting Blood / Tissue for Mitochondrial Analysis

6.4.1 Requirements

Clinical and family history MUST accompany each sample. Blood (in EDTA tubes) approximately 10mls or muscle tissue (see section 6.2 Muscle Biopsy) is required for the extraction of mitochondrial DNA (mtDNA).

Blood (in EDTA tubes) or muscle tissue (see section 6.1 Muscle Biopsy) is required for the extraction of mitochondrial DNA (mtDNA). All mtDNA mutation analysis can be performed on blood specimens, however, mtDNA rearrangements (deletions / duplications / depletions) are preferably performed on muscle tissue (see table below)

6.4.2 Specimen Size

| Abbreviation | Mitochondrial Disease | Blood | Muscle |
|--------------|--|-------|---------------|
| LHON | Leber's Hereditary Optic Neuropathy | *** | Not Necessary |
| Pearsons | Pearson's Syndrome | *** | Not Necessary |
| KSS | Kearns Sayre Syndrome | * | *** |
| CPEO | Chronic Progressive External Ophthalmoplegia | * | *** |
| Depletion | mtDNA Depletion | * | *** |
| MELAS | Mitochondrial Encephalopathy with Lactic Acidosis and Stroke-like Episodes | * | *** |
| MIDD | Maternally Inherited Diabetes Mellitus | * | *** |
| MERRF | Myoclonic Epilepsy with Ragged Red Fibres | *** | *** |
| MILS | Maternally Inherited Leighs Syndrome | *** | Not Necessary |
| NARP | Neurogenic weakness, Ataxia and Retinitis Pigmentosa | *** | Not Necessary |
| POLG1 | Alper's Syndrome, Epilepsy, PEO, Myopathy | *** | Not Necessary |

*** = preferable sample type; * = analysis can be performed

6.4.3 Factors affecting test performance / interpretation of results

- Sample Type is very important (see table above)
- Clinical and family history must accompany each sample.
- Blood MUST be stored in EDTA tubes. Specimens sent in any other tubes can not be analysed.
- Blood samples of patients older than 30 years will not be screened for MELAS / mtDNA rearrangements.

7 AUTOPSY SERVICES (POST MORTEM)

The Histopathology and Neuropathology Department provide an autopsy service. Autopsies may be performed at the request of the clinical staff responsible for the care of the patient or under the direction of the Coroner.

Written consent from the next of kin on the appropriate post-mortem examination consent form is required for non-Coroner cases (ie "Hospital" or "House" cases) before an autopsy is performed.

In Coroner's cases the Post Mortem Information form detailing the nature of the procedure and giving the name and number of a family member must be completed.

Circumstances where a death should be reported to the Coroner are listed below. If an autopsy is required, the clinical staff must inform the Anatomical Pathology Technician at extension 2701/Bleep 641. Policies relating to obtaining consent for autopsy are outlined in the Mortuary Policies document. For "consented" autopsies (so called non-Coroners or "House Cases") it is the responsibility of the individual who requests the autopsy to ensure the completed consent form, patient case notes and a concise clinical summary are delivered to the Mortuary in order for the autopsy to be performed.

In the case of deaths outside normal working hours, the individual who obtained consent for autopsy must ensure that the relevant documentation is given to the Anatomical Pathology Technician the following morning.

In Coroner's cases it is the responsibility of the clinical team to notify the Coroner and to ensure that the "Information Form" is completed.

Deaths which must be reported to the coroner.

- (a) **Deaths occurring at home or other place of residence:**
Where the deceased was not attended by a doctor during the last illness;
Where the deceased was not seen and treated by a doctor within one month prior to the date of death;
Where death was sudden or unexpected;
Where death may have resulted from an accident (regardless of length of time between injury and death), suicide or homicide;
Where the cause of death is unknown or uncertain;
Where concerns are expressed by any person in relation to a death.
- (b) **Deaths occurring in hospital:**
Deaths occurring in the accident and emergency department and individuals dead on arrival at hospital;
Deaths occurring within 24 hours of admission;
Where a patient dies before a diagnosis is made and the general practitioner is also unable to certify the cause;
When death occurred while a patient was undergoing an operation or under anaesthesia or within 24 hours of same;
Where death occurred during or as a result of any procedure;
Where any question of negligence or misadventure arises in relation to the treatment of the deceased;
Where death resulted from an industrial disease;
Where death was due to neglect or lack of care (including self neglect);
Where death occurred in a Mental Hospital;
Where death may have resulted from an accident (regardless of length of time between injury and death), suicide or homicide.
Where a patient has MRSA, C. Diff. or VRE
Where a patient is resident in a long stay unit or nursing home (e.g. Rockfield Unit)
- (c) **A death is reported to the coroner by a member of the Garda Siochana:**
Where death may have resulted from an accident, suicide or homicide;
Where death occurred in suspicious circumstances;
Where death is unexpected or unexplained;
Where a dead body is found;
Where there is no doctor who can certify the cause of death.

(d) Other Circumstances

Sudden infant deaths;

Where a body is to be removed out of Ireland.

A detailed list of reportable deaths is available in the "The Role of the Coroner in Death Investigation".

It is the responsibility of the most senior member of the medical staff attending the patient to ensure that the death is reported to the Coroner.

8 PROCEDURES FOR CONFERENCES

Details are outlined below of the conferences, their frequency, where they are held and the procedure to be followed to place a patient on the list for each conference.

8.1 Weekly:

Oncology clinicopathological meeting: Monday 7.30-8.30am in radiology conference room. Names for oncology conference must be entered on the Beaumont Hospital Conference System (access through Mozilla), before 12 noon on the Wednesday before conference.

Respiratory multi-disciplinary meeting: Monday 1-2pm in radiology conference room. Pathology list to be phoned to the pathology office (Ext. 3150) by previous Friday noon.

Renal biopsy clinicopathological meeting: Tuesday 1.00-2.00pm the pathology conference room. Renal biopsies from Beaumont, Crumlin and Temple Street Hospitals are discussed.

Bone marrow haematology-pathology meeting: Wednesday 8.15-9.00am in Dept. of Pathology, RCSI's Smurfit Building. Names for the conference are put into bone marrow tray in the registrar's office in the Histopathology department. The Pathology secretary takes out the cases and retrieves any relevant slides and types up the conference list, which is then faxed to Coleman K. Byrnes Unit (CKB).

Dermatology clinicopathological meeting: Thursday 4.15-5.15pm in Dept. of Pathology, RCSI's Smurfit Building. List is to be given to the pathology secretary by dermatology team on Wednesday morning.

Breast multidisciplinary meeting: Friday 8.00-9.00am, first floor in RCSI's Smurfit Building. Names for breast meeting must be entered on the Beaumont Hospital Conference System (access through Mozilla), before 2pm on the Wednesday before conference.

Clinical Neuroscience Conference: 9.00-10.00am in the Robert Adams lecture theatre.

GI clinicopathological meeting: Friday 1.00-2.00pm in the pathology conference room. List to be phoned to the pathology office (Ext. 3150) by previous Friday by 2pm.

8.2 Fortnightly:

Urology multidisciplinary meeting: Tuesday 8.00-9.00am in the pathology conference room. List should be phoned or brought to the pathology office (Ext. 3150) by the previous Thursday.

Neuroscience research meeting: Wednesday 8.45am in the Smurfit Building.

8.3 Monthly:

ENT multidisciplinary meeting: Last Thursday of the month 1.00-2.00pm in the radiology conference room. List should be phoned or brought to the pathology office (Ext. 3150) by the previous Thursday.

Lymphoma meeting: First Wednesday of each month 8.00-9.00am in the pathology conference room. List from Beaumont Hospital patients should be phoned or brought to the pathology office by the previous Wednesday. For patients outside of the hospital, slides and reports should reach the pathology department also by the previous Wednesday.

9 RETENTION TIMES FOR SPECIMENS

The Histopathology / Neuropathology / Cytopathology departments retain Specimens / Blocks / Slides in accordance with the Royal College of Pathologists Guidelines (Royal College of Pathologists and Institute of Biomedical Science. *The retention and storage of pathological records and archives*. Third edition 2005. Available from: <www.rcpath.org>).