

Department of
**Health, Social Services
and Public Safety**

An Roinn

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

www.dhsspsni.gov.uk

Information for Relatives:
Hospital Post Mortem
Examination of an Adult

A post mortem examination

There are two types of post mortem examination. A hospital post mortem which is not required by law and can only be carried out with your consent and a Coroner's post mortem examination which is legally required and for which consent is not required.

A post mortem is an external and internal examination of a body after death. It is also called an autopsy.

Post mortems are carried out by pathologists – doctors who specialise in the diagnosis of disease and the identification of the cause of death. It is the final step in the investigation of your relative's illness.

The importance of a post mortem examination

A post mortem examination can provide information about the illness or other cause of your relative's death. An examination will only be carried out with the permission of the next of kin, unless the Coroner has ordered it (see below).

Post mortem examinations can provide information about illness and health that would not be discovered in any other way and help you to understand why your relative died.

Much of what we know about illness today came from such examinations. They help to:

- Identify the cause of death.
- Confirm the nature of the illness and/or the extent of the disease.
- Identify other conditions that may not have been diagnosed.
- Identify complications or side-effects of treatments and drugs.

Sometimes families ask questions that can only be answered with information obtained from a post mortem examination. It is also possible that the information gained may benefit future children in the family, or other patients who suffer similar problems. Unfortunately it is possible that a post mortem examination will not always provide a reason for the death.

A post mortem examination ordered by the Coroner

A Coroner does not need the family's consent to order a post mortem examination to be done or to retain organs or tissue samples from it for further investigation. There are three main reasons why a death is referred to the Coroner and a post mortem is required by law:

- A death has been sudden and unexpected.
- A person has been ill but the doctor confirming the death is not certain why it happened at that particular time.

- A death has been the result of an industrial disease, accident or unusual circumstances (which would include deaths following a medical procedure such as surgery).

You can still donate tissue or organs for medical research following a Coroner's post mortem examination, if you sign a consent form for this and with the agreement of the Coroner.

Different options

- Full post mortem examination.
- Limited post mortem examination.
- No post mortem examination.

If you do not want to agree to a full post mortem examination, you might consider a **limited examination**. The doctor or other health professional who discusses the post mortem with you will be able to explain what the options are. Usually it means that only certain parts of the body are examined. **Blocks and slides** will be made from **tissue samples** in the same way as for a full post mortem examination. Sometimes such examinations can be very useful. It is possible that something important may be missed, or you may wish the examination to be limited to such an extent that the procedure is not worthwhile. In such circumstances, the person explaining the procedure will discuss the limitations and implications with you.

However, you may not wish to have a post mortem carried out on your relative and you should not feel under any pressure to do so against your wishes or what you know to be the wishes of your deceased relative.

When is a post mortem examination done?

Post mortem examinations are usually carried out within 1–2 working days of death. They take place in the mortuary. If, because of your religion, the funeral must take place within 24 hours, please let us know; we will try to do the post mortem examination within this time.

About a post mortem examination

The pathologist, working to standards set by the Royal College of Pathologists, will make incisions (cuts) in the body to remove and examine the major internal organs and will take various samples of tissue and fluid (such as blood) for later inspection in detail. If the brain needs to be examined, an incision is made in the back of the head around the hairline. It takes six to eight weeks to properly examine the brain because special

processes (fixation) need to be carried out. Sometimes it becomes essential to retain an organ such as brain or heart for a further detailed examination. All organs are usually returned to the body afterwards but they cannot be placed in their original position. However, this will only be done if you have agreed beforehand.

The samples of tissue taken for testing are usually retained as part of your relative's medical records in case they are needed to answer further questions about the cause of death, or to help answer questions regarding illnesses of other family members in the future.

Tissue samples, blocks and slides

Although some information can be obtained from looking directly at organs in a post mortem examination, often the only way to understand properly what has happened is to look at part of an organ with a microscope.

- Small pieces of tissue are removed and placed in plastic containers (cassettes).
- These **samples** are usually less than 1.5 x 1.5cm in size (less than the size of a postage stamp) and up to 5 mm thick (often samples from the brain may be larger: about 2 x 2cms).
- The tissue is chemically treated to remove water, which is replaced with wax.
- These **tissue blocks** become hard, so that very thin sections can be cut from them. These sections are ten times thinner than a human hair.
- They are placed on glass **slides** so that they can be examined with a microscope.
- More than one section can be cut from one block.
- Most blocks and slides are kept in special cabinets designed for this purpose, which are kept securely in hospitals or research laboratories.

Ways of examining tissue improve each year. In cases of genetic disorders, looking back to the tissues of deceased family members may help to make a diagnosis in other living members of the family so that they then receive the correct treatment.

If you give your permission, these tissue blocks and slides can also be used in research, which may benefit other patients in the future. When a new disease or health problem emerges, examination of tissue on a wide scale may provide clues about how and why the disease emerged – and how to respond.

Special committees must approve any research, to make sure it is ethical, and that valid consent has been given. Tissue must not be used for research without your agreement.

What is residual tissue?

After the blocks have been prepared the hospital needs to know how you want any unused or “residual” tissue to be disposed of by cremation/incineration/burial or returned to you.

X-rays and other images

Often the pathologist will take x-rays or other images (including photographs) of part of the body or of an organ during the examination, to be studied again later. These images are usually retained indefinitely as part of the medical records.

They may also be used for teaching, training, audit or research, in which case any information which would allow your relative to be identified will be removed. If you object to images being used in this way, you must say so.

Organ retention/disposal

Some tests may take several days or weeks. Hospital staff can advise if this is likely, and how long tests may take. You may wish to have the funeral during this time.

The consent form asks you about four options:

- You can ask for any organs and tissues that have been retained to be returned to the funeral director once the tests are complete, and you will then need to arrange a separate cremation or burial service for these. Agreed costs for the re-interment or cremation will be met by the relevant Trust.
- You can choose to delay the funeral so that organs and tissue may be returned to the body for burial or cremation. But please note that it is not possible to place all the organs back into their original position in the body.
- You can choose to donate tissue samples or organs from your relative’s body for use in medical education or research.
- If you have not donated the organs or tissue or asked for them to be returned, the hospital will dispose of them in a lawful way. This is by incineration.

Any tissue, blocks and slides, and photographs, x-rays or other images taken will usually be kept with the medical records. Alternatively, except where the Coroner has ordered the examination, they may be returned, if you ask for this to happen.

Your relative's body after the post mortem examination

After the post mortem examination the mortuary staff will prepare the body for you to see again, if you wish, and for the undertaker to prepare it for the funeral. We want to assure you that the body of your loved one is treated with respect and dignity. Evidence of the post mortem examination is not usually visible when the body is dressed.

The results of the post mortem examination

A copy of the post mortem report will be sent to your relative's Consultant Clinician and Family Doctor (GP). If you want one, you can be given an appointment to discuss the findings of the post mortem with the GP or doctor in charge of your relative's care at the hospital. This will be a minimum of twelve weeks later, after all the tests are complete, but in some cases considerably longer. Where your relative has asked prior to death for confidentiality of his/her medical reports this will also apply to the post mortem report.

The consent form

Unless it has been ordered by the Coroner, the doctors need to get consent before they can carry out the post mortem examination. A written record of the decision makes it clear to everyone what has and has not been agreed to. Copies will be placed in your relative's medical record, given to the pathologist and to you. If you change your mind before the post mortem examination has taken place you can withdraw your consent – even after signing. The hospital staff will tell you how much time you have in which to do this.

Who can consent?

Before their death an adult can consent to a post mortem examination or they can identify a "nominated representative" who has the authority to make decisions for them before and/or after death. If your relative has not made their wishes known or nominated someone to make these decisions it is for the "next of kin" to give their consent.

Next of kin are ranked in order of authorisation as:

1. Husband, wife or civil partner
2. Parent or child
3. Full brother or sister
4. Children of full brother or sister
5. Stepmother or stepfather
6. Half brother or half sister
7. Friend of long standing

Relationships which appear in the same rank of the provision have equal rights to consent but those with the highest ranking order are designated “next of kin”. Where there is disagreement or objection among those of equal ranking the post mortem should not be done.

Medical education/research and quality standards.

The consent form asks you about whether you want to donate tissue, organs, blocks or images for use in medical education or ethically approved research.

Medical education: includes teaching, training and educating all types of doctors, nurses and health professionals.

Research: examining tissue, organs or blocks is one of the most important ways in which doctors learn about illness and how to treat it.

Tissue blocks and slides are used to train medical students and new doctors, to help experienced doctors continue to learn about new conditions or treatments, or to teach specialist knowledge.

Sharing information between doctors is important in maintaining high standards of care. Medical audit means checking the quality of care, procedures and tests.

Doctors training to be Pathologists need to observe and learn about post mortem examinations, and to discuss the procedures and findings with an experienced Pathologist.

Sharing information between doctors and hospitals is also very important for public health surveillance – making sure that infectious diseases (such as hepatitis, measles or tuberculosis) do not spread throughout the population. If you donate organs or tissue, they will not usually be returned to you. After they have been used, they may eventually be disposed of in a lawful and ethical way.

Checking quality standards: includes audit, quality assurance, public health, and performance management.

What should I know before deciding?

The staff should make sure you know enough about the post mortem examination to decide if you wish to give your consent. They will discuss the alternatives with you. They may recommend a particular option, but it is important that you understand and come to your own decision. They will ask you to say whether you have understood the information you have been given. If you are not sure, say so.

Questions

You can ask as many questions as you like. You may also want to discuss the decision about a post mortem examination with other family members.

People vary as to how much information they want about what will happen during a post mortem examination. If you would rather not know about certain aspects, please say so. If, on the other hand, you would like more detail or would like to discuss the matter with another health professional please ask.

Key things to remember

- Ask as many questions as you like and if you would rather not hear details that you find upsetting, just say so.
- Hospital staff are aware that this is not an easy subject for you to deal with.
- They are able to give you help to make the decision that is right for you and your family.

What some of the words mean

Archiving

Archiving is the long-term preservation of tissue or organs.

Archives are important and useful because:

- The tissue/organ can be examined if new techniques or knowledge become available. This gives a clearer explanation of an illness.
- The education and training of medical students and doctors is easier if

they can see for themselves what happens inside the body in disease.

- Research using archived tissues and organs can help in the diagnosis and treatment of future patients.

Tissue and Organ Banks

Rare diseases can be investigated properly only when a number of cases have been studied. This means that tissues/organs from post mortems may be stored safely and securely until enough cases have been collected and then the research can begin. Tissues/organs are only stored with the family's permission.

Body Parts

Body parts are groups of organs, a limb or part of a limb.

Cassette

A small plastic container, usually measuring 2.5 x 1.5 x 0.5 cms, in which tissue samples are placed at post mortem. Each cassette is marked with the patient's identifying number. The tissue samples remain in the cassettes from the time of the post mortem, through processing and slide cutting, and are stored in them.

Consented post mortem examination

A post mortem examination carried out with the agreement of relatives, not one required by law.

Coroner

The Coroner is an independent lawyer who investigates deaths due to unnatural, suspicious or unknown causes. The Coroner may hold an inquest in a small number of cases.

Coroner's post mortem examination

This is a post mortem examination that has been asked for by a Coroner. The agreement of relatives is not needed as the post mortem is required by law but the tissue or organs cannot be used for other purposes without your consent and the agreement of the Coroner.

Death Certificate

A death certificate is required to allow the death of the person to be registered, along with the cause of death. It lets the Registrar of Deaths issue the form allowing the funeral to take place.

Fixation

Before organs or tissues can be examined in detail, they have to be hardened by soaking them in a chemical, usually formaldehyde. This is known as fixation or fixing. The complete process may take several weeks, especially for the brain.

Full post mortem examination

The full post mortem involves examination of all the organs in the chest and abdomen, and the brain.

Inquest

A Coroner may hold an inquest into any death that is reported to him. This may be when a death is known or suspected to be due to anything other than natural disease. Sometimes it is held in the presence of a jury. An inquest considers all the evidence about the death and gives relatives or their legal representative an opportunity to question witnesses.

Incision

An incision is a cut in the skin to allow the internal organs to be examined. It is made in the same way as for a surgical operation. The incision is closed with stitches at the end of the post mortem and may then be bandaged.

Limited post mortem examination

This is a post mortem where only some organs are examined. This may only provide some of the possible information about the illness.

Microscope

This is a machine with special lenses that allows the pathologist to look at the tissue on a glass slide, and see the cells magnified. Changes in the tissue that are not normal indicate the type of disease.

Mortuary

The mortuary is a group of rooms where bodies are kept in refrigerators before being collected by the funeral directors. The mortuary also includes the post mortem room where the examinations are performed.

Organ(s)

The body contains many organs such as the brain, heart, kidneys, lungs and liver. Each organ carries out different functions. The organs are connected in the body by nerves, blood vessels and fibres.

Pathologist

A pathologist is a medical doctor trained in the diagnosis and study of disease. Pathologists who perform post mortem examinations usually work in hospitals, and are also involved in the diagnosis of disease in live patients. Some pathologists have further specialist training:

- Neuropathologists study diseases of the brain.
- Paediatric pathologists study diseases of babies and children.
- Forensic pathologists study sudden, suspicious or unnatural deaths.

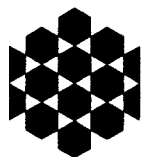
Pathologists work to standards laid down by the Royal College of Pathologists.

Regional centre for specialist post mortem examination

Sometimes it is necessary for a body to be moved to another hospital for the post mortem examination where there are special facilities and pathologists skilled in dealing with particular cases (for example, deaths in infancy and childhood and diseases of the brain).

Tissue

Organs are made up of tissue, which is a collection of cells that give organs their special functions. For example, the heart contains muscle tissue composed of cells that contract to pump the blood.



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