

## A SIMPLE GUIDE TO A POST MORTEM EXAMINATION

This leaflet explains why you may be asked to give your consent to a post mortem examination at such a distressing time, and outlines the procedure.

Please accept our sympathies for your loss. We hope this leaflet will assist you during this difficult time. Staff will go through the consent process with you and answer any questions you may have.

### What is a post mortem?

A post mortem, also known as an autopsy, is an important medical examination that aims to find out more about a person's last illness and the cause of their death. It cannot take place without the agreement of the next-of-kin, unless the coroner is involved. By law, the coroner can order a post mortem examination in some circumstances, such as accidental death. The coroner's officer will contact you directly about this, if it is necessary.

### Why are post mortems carried out?

Post mortems are carried out mainly to find out exactly how or why the person died, particularly when this was unexpected or if there are public health concerns. But post mortems also have far wider implications for medical education and research generally. Examining tissue is one of the most important ways in which doctors learn about illness and how to treat it. Tissue from post mortems can be 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.

New medical conditions are recognised all the time. If tissue samples have been retained, it is sometimes possible at a later date to diagnose these new conditions in cases in which they were previously undiagnosed, or given a different diagnosis.

With your permission, an organ (or part of an organ) might also be retained for use in medical research or education. If the organ shows a particularly clear example of a specific illness, it may play an important role in the education of medical students, doctors, and nurses.

Donating organs for transplant is handled separately from the post mortem procedure. Please ask if you want to know more.

### **When do post mortems take place?**

The post mortem will be carried out as soon as possible, usually within two to three working days. It may be possible to arrange it within 24 hours, if necessary.

### **Who carries out post mortems?**

Post mortem examinations are done by pathologists, who are specially-trained doctors, with help from technical staff. They take place in a mortuary.

### **What is involved?**

A full post mortem examination involves examination of each of the main body systems, including the brain, and all the contents of the chest and abdomen. It can include the removal and retention of small tissue samples for examination under a microscope. Sometimes whole organs may be retained for closer examination.

Small blocks of tissue and corresponding microscope slides can be kept permanently in the hospital's pathology laboratory and can form part of a person's medical records. In some cases, organs and tissues may need to be temporarily retained for the preparation of blocks and slides – you will be told if this is the case.

You will be asked to give written agreement for any specified tissues or organs to be retained for diagnostic purposes by the pathologist.

If you stipulate it, a hospital post mortem can be limited to one body cavity (for example, the chest) or organ system (for example, the lungs), but this may not provide all possible information about the disease or cause of death.

### **What happens afterwards?**

If you wish, you will be able to see your child's, partner's, or relative's body again after the post mortem, before proceeding with your funeral arrangements.

Normally, the results of the examination will be available within a matter of weeks (this depends on local circumstances).

A copy of the report will usually be sent to your child's, partner's, or relative's GP, and you may wish to make an appointment to discuss the results with the hospital consultant.

If any organs or tissue had to be retained after the post mortem for further examination, these can be returned to you or the funeral director once they are no longer needed, or disposed of by the hospital, whichever you prefer. Or you may choose to donate these for use in medical education or research.

### **Explanation of terms**

The most common words and terms used to describe what happens in a post mortem examination are explained here. Some of the terms also explain words used in the consent form. It is important that you understand exactly what is involved before you give your consent to a post mortem. So if there is anything you're not sure of or don't understand, please don't hesitate to ask.

### **Audit**

Audit means checking standards of care and service. Some separate testing of tissue is needed to make sure that the standards of testing are of a high quality. Some tissue samples are needed as a control against diagnostic tests, or to check on standards in a hospital pathology service. We carry out regular audit of our pathology service.

### **Coroner**

The coroner is an independent judicial officer responsible for the investigation of unexpected deaths. He or she is either an experienced lawyer, or an experienced doctor, who has also had legal training. In this area, there are coroners in Bassetlaw and Doncaster.

### **Diagnosis; diagnostic use of tissue; and diagnostic tests**

This is when tissue samples are examined to find out as clearly as possible what was wrong with the person before they died. Looking at tissue with a microscope can identify diseases that could not be seen any other way, including those caused by genetic disorders. New medical conditions are recognised all the time. If tissue samples have been retained, it is sometimes possible at a later date to diagnose these new conditions in cases in which they were previously undiagnosed, or given a different diagnosis.

### **Education (medical education, teaching and training)**

Examining tissue is one of the most important ways in which doctors learn about illness and how to treat it. Sharing information between doctors is important in maintaining high standards of care. Students and doctors in training need to observe and learn about post mortem examinations, and to discuss the procedure and findings with an experienced doctor.

### **Fixing**

Fixing means preparation of tissue or whole organs for further testing by preserving with chemicals.

### **'Full' post mortem examination**

A full post mortem examination involves examination of each of the main body systems, including the brain and all of the chest and abdomen. It will normally include the removal and retention of small tissue samples for examination with a microscope. Sometimes whole organs may be retained for closer examination.

### **'Limited' post mortem examination**

If you wish, a hospital post mortem can be limited to one body cavity (for example, the chest) or organ system (for example, the lungs). This may not provide all possible information about the disease or cause of death.

### **Organ**

An organ is a part of the body, composed of more than one tissue, that forms a structural unit responsible for a particular function (or functions). The body contains many organs, such as the brain, heart, lungs, kidneys, and liver.

### **Post mortem**

This Latin phrase literally means 'after death'. A post mortem examination is a medical examination after someone's death. It is also called an autopsy, which means 'to see for oneself'.

Post mortem examinations are done by pathologists, who are specially trained doctors, with help from technical staff.

### **Retaining/retention of tissue and/or organs**

Sometimes one or more whole organs, part of an organ, or tissue samples are retained (kept) after the post mortem examination in order to reach a diagnosis.

The reasons for this are:

- the organ or part of it may need to be examined with a microscope
- the organ may show signs of a complex abnormality that requires a more detailed examination, perhaps by another specialist
- the tissue or organ may need to undergo preparation before it can be examined
- preparation may take several days and sometimes many weeks.

With your permission, an organ (or part of an organ) might also be retained for use in medical research or education. If the organ shows a particularly clear example of a specific illness, it may play an important role in the education of medical students, doctors and nurses.

### **Tissue**

A collection of human cells specialised to perform a particular function. Organs contain tissues. For example, the heart contains a muscle tissue composed of cells that contract to pump the blood around the body. In addition, it also includes blood vessels, fat and nerves.

### **Tissue samples; blocks and slides**

To understand an illness or cause of death properly, the doctor needs to look at part of the affected organ under the microscope. To do this, small samples of tissue are taken from the organ (usually about 1 cm across and about 5 mm thick).

These samples are made into hard blocks using wax. From these, very thin sections, 10 times thinner than a human hair, can be cut off. They are placed on glass slides so that they can be examined under a microscope. More than one section can be cut from one block.

### **Further information**

For further information, we recommend the Human Tissue Authority's website: [www.hta.gov.uk](http://www.hta.gov.uk). The HTA licenses and inspects organisations that store and use human tissue for purposes such as research, patient treatment, post mortem examination, and teaching and public exhibitions.

The HTA also gives approval for organ and bone marrow donations from living people.