

Understanding NICE guidance

Information for people who use NHS services

Machine perfusion and cold static storage of kidneys from donors who have died

NICE 'technology appraisal guidance' advises on when and how drugs and other treatments should be used in the NHS.

This leaflet is about using **machine perfusion systems and cold static storage** to store kidneys from people who have died before they are used for transplants in the NHS. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence) but it does not describe kidney donation and transplants in detail. Some sources of further information and support are on page 3.



What has NICE said?

The following methods are recommended for storing kidneys from donors who have died:

- machine perfusion using the LifePort kidney transporter
- cold static storage using Belzer UW storage solution or Marshall's hypertonic citrate solution.

The choice of storage method should be based on:

- the expertise and equipment available to the teams collecting the kidney
- how the teams are organised, and
- the distances involved.

If more than one of the storage methods are equally suitable the least costly should be used.

Kidney transplants

If a person's kidneys have stopped working, it may be possible for them to have a new kidney transplanted. This will often be from a person who has died. If a kidney is to be used for a kidney transplant, it needs to be kept in good condition from the time it is taken out of the donor until the time it is transplanted into the recipient.

Cold static storage and machine perfusion

There are two main ways to keep a kidney healthy while it is transported: cold static storage, and machine perfusion. In cold static storage, the kidney is filled with a sterile preservation solution (usually either a solution called Marshall's hypertonic citrate or one called Belzer UW) and is kept on ice in a box. In machine perfusion, the preservation solution is actively pumped through the kidney while it is being transported.

More information

The organisations below can provide more information and support for people who are having a kidney transplant. NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.

- British Organ Donor Society (BODY), 01223 893636
<http://body.orpheusweb.co.uk>
- The Transplant Trust, 0117 931 4638
www.thetransplanttrust.org.uk

NHS Choices (www.nhs.uk) may be a good place to find out more. Your local patient advice and liaison service (usually known as 'PALS') may also be able to give you more information and support.

About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating medical conditions. The guidance is written by independent experts, including healthcare professionals and people representing patients and carers. They consider the evidence on the disease and treatments, the views of patients and carers and the experiences of doctors, and consider the costs involved. Staff working in the NHS are expected to follow this guidance.

To find out more about NICE, its work and how it reaches decisions, see www.nice.org.uk/aboutguidance

This leaflet and other versions of the guidance aimed at healthcare professionals are available at www.nice.org.uk/ITA165

You can order printed copies of this leaflet from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N1784).

We encourage NHS and voluntary sector organisations to use text from this leaflet in their own information about kidney transplants.