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Understanding NICE guidance

Information for people who use NHS services

National Institute for Health and Clinical Excellence

Collecting and re-using blood lost during radical surgery to remove the prostate gland or bladder

NICE 'HealthTech guidance' advises the NHS on when and how new procedures can be used in clinical practice.

This leaflet is about when and how blood lost during radical surgery to remove the prostate gland or bladder can be collected and transfused into the patient in the NHS. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

This HealthTech guidance makes recommendations on the safety of a procedure and how well it works. An interventional procedure is a test, treatment or surgery that involves a cut or puncture of the skin, or an endoscope to look inside the body, or energy sources such as X-rays, heat or ultrasound. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering how well the procedure works and whether it represents value for money for the NHS.

NICE has produced this guidance because the procedure is not generally used during prostate or bladder surgery. This means that there is not a lot of information yet about how well it works, how safe it is and which patients will benefit most from it.

This leaflet is written to help people who have been offered this procedure to decide whether to agree (consent) to it or not. It does not describe the procedure in detail – a member of your healthcare team should also give you full information and advice about these. The leaflet includes some questions you may want to ask your doctor to help you reach a decision. Some sources of further information and support are on page 7.

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What has NICE said?

This procedure can be offered routinely to collect and re-use blood lost during radical surgery to remove the prostate gland or bladder, provided that doctors are sure that:

- the patient understands what is involved and agrees to the treatment, and
- the results of the procedure are monitored.

Doctors should make sure that extra steps are taken to explain the risks and benefits of this procedure compared with a blood transfusion using blood from a donor. This should happen before the patient agrees (or doesn't agree) to the procedure. The patient should be given this leaflet and other written information as part of the discussion.

Other comments from NICE

There was concern that in theory there may be a risk that cancerous cells could be transferred in the replaced blood. However there was no evidence about this happening in any of the studies that NICE looked at. In addition, it was felt that this potential risk needs to be balanced against the potential risks of using blood from a donor.

This procedure may not be the only possible option for replacing blood lost during surgery. Your healthcare team should talk to you about whether it is suitable for you and about any other options available.

Collecting and re-using blood lost during radical surgery to remove the prostate gland or bladder

The medical name for this procedure is 'intraoperative red blood cell salvage during radical prostatectomy or radical cystectomy'. The procedure is not described in detail here – please talk to your specialist for a full description.

During an operation to remove the prostate gland or bladder, patients sometimes lose a large amount of blood. If this happens, patients usually receive a transfusion of blood from a donor. In some circumstances patients can pre-donate their own blood before the operation so it can be transfused back during or after the operation if necessary. The potential advantages of having a transfusion of a person's own blood are that there should be fewer allergic reactions and infections, and the blood is known to be the correct type. This procedure is a method of collecting a patient's own blood lost during the operation and then putting it back in the patient's blood system. This treatment may be helpful for patients who object to being transfused with donated blood on religious or other grounds.

What does this mean for me?

NICE has said that this procedure is safe enough and works well enough for use in the NHS. If your doctor thinks it is suitable for you, he or she should still make sure you understand the benefits and risks of this procedure compared with a blood transfusion using donated blood before asking you to agree to it. You should only be asked if you want to agree to this procedure after this discussion has taken place. You should be given written information, including this leaflet, and have the opportunity to discuss it with your doctor before making your decision.

You may want to ask the questions below

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

You might decide to have this procedure, to have a different procedure, or not to have a procedure at all.

Summary of possible benefits and risks

Some of the benefits and risks seen in the studies considered by NICE are briefly described below. NICE looked at five studies on this procedure.

How well does the procedure work?

In a study of 49 patients who had this procedure during radical bladder surgery to remove the bladder as treatment for bladder cancer, after 2 years 43 patients were alive and 39 patients were free of cancer. There were no studies available that looked at the success of this procedure during radical prostate surgery.

As well as looking at this study, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. The advisers said that success factors include reducing the need for blood transfusions using donated blood, maintaining the level of haemoglobin (a substance in red blood cells that carries oxygen) and avoiding complications in the immune system.

Risks and possible problems

Two studies looked at this procedure during radical bladder surgery. In the first there was no difference in survival (64% vs 66%) or cancer recurrence (72% vs 73%) at 3 years, between 65 patients who had their lost blood collected and re-used compared with 313 patients who did not. The second study of 49 patients showed that there were no problems linked to the procedure at 2 years afterwards.

Three studies looked at this procedure during radical prostate surgery. In the first, 265 patients had their lost blood collected and re-used. After 5 years the cancer had come back in 15% of the patients. There were 773 patients who did not need a blood transfusion; after 5 years the cancer had come back in 18% of these patients. In the

second study, 62 patients had their lost blood collected and re-used. After 7 months the cancer had come back in 5% of the patients. There were 101 patients who received pre-donated blood; after nearly 4 years the cancer had come back in 24% of the patients. However it should be noted that the monitoring period was different for the two groups. In the third study, 47 patients had their lost blood collected and re-used. After nearly 4 years the cancer had come back in 19% of the patients. There were 53 patients who did not need a blood transfusion; after nearly 4 years the cancer had come back in 32% of these patients.

As well as looking at these studies, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. The advisers said that safety issues to consider include temporary high blood pressure, infection, blood clot and bleeding, as well as the length of hospital stay and the need for intensive care. The advisers said that in theory there may be a risk that cancer cells could be transferred in the re-used blood.

More information about blood transfusions, radical prostate surgery or radical bladder surgery

NHS Direct online may be a good starting point for finding out more. Your local Patient Advice and Liaison Service (PALS) may also be able to give you further advice and support.

About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating different medical conditions. The guidance is written by independent experts including healthcare professionals and people representing patients and carers. They consider how well an interventional procedure works and how safe it is, and ask the opinions of expert advisers. This guidance applies to the whole of the NHS in England, Wales, Scotland and Northern Ireland. 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 is about 'Intraoperative red blood cell salvage during radical prostatectomy or radical cystectomy'. This leaflet and the full guidance aimed at healthcare professionals are also available at www.nice.org.uk/guidance/HTG167

You can order printed copies of this leaflet from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N1552).

We encourage voluntary sector organisations, NHS organisations and clinicians to use text from this booklet in their own information about this procedure.

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