

Understanding NICE guidance

Information for people who use NHS services

Palliative treatment of bony malignancies with percutaneous cementoplasty

NICE 'interventional procedure guidance' advises the NHS on when and how new surgical procedures or procedures that use electromagnetic radiation (such as X-rays, lasers and gamma rays) can be used.

This leaflet is about when and how **percutaneous cementoplasty** can be used for people with bony malignancies (bone cancer) in the NHS in England, Wales and Scotland. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

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 bony malignancies or 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.

Percutaneous cementoplasty

The procedure is not described in detail here – please talk to your specialist for a full description.

Bony malignancies are tumours or growths in the bones. They are usually metastases – tumours that have spread from another (primary) tumour somewhere else in the body. Occasionally a bone tumour is the primary tumour (sarcoma). Bone tumours can cause the bone to become unstable and painful.

What has NICE said?

This procedure can be offered as a treatment option for people who need palliative treatment (that is, to relieve pain) for painful bony malignancies 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.

The procedure should only be used when other treatments have not worked.

The decision to use the procedure for a patient should be made by a team of doctors specialising in different types of medicine.

Other comments from NICE

The procedure has also been used to treat benign lesions.

This procedure may not be the only possible treatment for painful bony malignancies. Your healthcare team should talk to you about whether it is suitable for you and about any other treatment options available.

Treatment of bony malignancies is largely palliative – it aims to relieve the pain but does not treat the tumour that is causing the pain.

Radiotherapy is commonly used to treat painful bony malignancies but pain may not be relieved for up to 2 weeks. Other treatments include pain relief medications (often with narcotic drugs such as morphine) and bed rest. However, these options do not reduce the pain in some patients.

Cementoplasty involves the injection of a special cement into the bone cavity in order to stabilise the bone, to reduce pain, or both. If injection of the cement is into the vertebrae of the spine, the procedure is called vertebroplasty. If injection is into the sacrum (where the spine joins the pelvis), it is called sacroplasty.

Percutaneous (which means through the skin) cementoplasty is performed under local anaesthesia and sedation, or sometimes under general anaesthesia. A small incision is made in the skin, and a needle is passed into the bone. Cement is then injected into the bone cavity. The cement contains a substance that allows the surgeon to follow what is happening using an X-ray technique called fluoroscopy.

After the procedure is finished, the patient must stay lying down and must not bear weight until the cement has hardened.

Summary of possible risks and benefits

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

How well does the procedure work?

Studies have shown that percutaneous cementoplasty provides good pain relief for people with painful bone tumours. One study of 14 patients showed that, on a scale from 0 to 10, the average pain score described by the patients improved from 8.8 points before the procedure to 1.9 points afterwards. Two other studies reported 'good' pain relief in 82% (9 out of 11) and 93% (13 out of 14) of patients. Another study reported that four out of 18 patients (22%) had no pain and seven (39%) had an improvement in pain 3 days after the procedure.

Studies have also looked at how the procedure affects patients' mobility (ability to move about). One study reported overall improvement in mobility in 93% (13 out of 14) of patients 1 week after the procedure. Another study reported improvements in patients' ability to walk 1 month after the procedure.

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

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 that percutaneous cementoplasty is a suitable treatment option for you, he or she should still make sure you understand the benefits and risks before asking you to agree to it.

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 care will I need after the operation?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

Risks and possible problems

Two of the problems associated with this procedure are leakage of cement from the intended site, and pain.

Among four studies, leakage of cement occurred in between 6% and 50% of cases, although the definition of leakage varied. Between 6% and 11% of patients had symptoms related to the leakage. One patient needed a hip replacement 12 weeks after the procedure because of a serious cement leakage.

Temporary worsening of pain occurred in 8 out of 11 patients (73%) in one study.

Other problems reported were fever, in 5 out of 11 patients (45%), and an increase in serum creatinine levels (which may indicate a decrease in kidney function), in 1 out of 11 patients (9%).

Expert advisers said that there is a risk that cement leakage might cause blockage of a vein (which could be fatal) or damage to nerves or blood vessels. Other concerns were pathological fractures (fracture in a bone that has been weakened by disease), infection, bleeding, and nerve damage caused by heat produced by the cement as it hardens.

More information about bony malignancies

NHS Direct online (www.nhsdirect.nhs.uk) 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. 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 the full guidance aimed at healthcare professionals are available at www.nice.org.uk/IPG179

You can order printed copies of this leaflet from the NHS Response Line (phone 0870 1555 455 and quote reference N1063).