NHS
National Institute for Health and Clinical Excellence

Understanding NICE guidance

Information for people who use NHS services

Tonsillectomy using ultrasonic scalpel

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 ultrasonic scalpel tonsillectomy can be performed 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 ultrasonic scalpel tonsillectomy in detail – a member of your healthcare team should also give you full information and advice about this. The leaflet includes some questions you may want to ask your doctor to help you reach a decision.

Tonsillectomy using ultrasonic scalpel

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

Tonsillectomy is surgery to remove the tonsils. It may be recommended to help patients who repeatedly get tonsillitis, or abscess (a collection of pus in the body, caused by infection) on the tonsils. It may also be offered to patients when the tonsils block the pharynx (back of the throat) or cause difficulty with breathing when sleeping (this condition is called obstructive sleep apnoea, and occurs when the throat narrows or closes repeatedly).

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What has NICE said?

This procedure can be offered routinely as a treatment option for people who need their tonsils removed 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.

Secondary bleeding – that is, bleeding 24 hours after tonsillectomy using ultrasonic scalpel – may be more common than for other procedures to remove tonsils. Surgeons should be specifically trained in this procedure before carrying it out.

Surgeons should also ensure patients understand the risk of bleeding after this procedure.

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

The standard operation involves cutting the tonsils out using a surgical blade (known as cold-steel surgery) and then stopping any bleeding by applying pressure to the area. Sometimes the blood vessels are tied to stop them bleeding, and sometimes the blood vessels are sealed using heat generated by diathermy.

Diathermy is another way of carrying out a tonsillectomy. It uses heat from a high-frequency electric current to 'cut' away the tonsils. The heat can also be used to seal the blood vessels to stop any bleeding. There are two types of diathermy: monopolar and bipolar. In monopolar diathermy, the electric current passes between the tips of the diathermy instrument and a plate that's attached to the patient's skin. In bipolar diathermy, the current passes between the two tips of the diathermy forceps.

The ultrasonic scalpel uses very high energy waves (called ultrasonic waves) to cut the tonsils and seal blood vessels (to stop bleeding) at the same time.

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 nine studies on this procedure.

How well does the procedure work?

Pain was assessed in six studies. Pain after surgery with ultrasonic scalpel was generally similar to other methods. Pain for 7 days after tonsillectomy was similar whether the surgery was done with ultrasonic scalpel, cold-steel surgery or diathermy. In one study in which patients had one tonsil removed by ultrasonic scalpel and the other by cold-steel surgery, pain was worse on the ultrasonic scalpel side 2 weeks after surgery. Another study found that only patients who had had tonsillectomy using diathermy had pain in the second week after surgery.

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 ultrasonic scalpel tonsillectomy 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?

Patients who had had ultrasonic scalpel tonsillectomy could return to eating normal food sooner or at a similar time to those who had had cold-steel surgery or diathermy.

Expert advisers said that there were no concerns about how effective this procedure is, although it has been performed on relatively few patients.

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

Risks and possible problems

Bleeding is an important problem with tonsillectomy. It can occur during the operation, during the first 24 hours after the operation (described as primary haemorrhage) or later than this (referred to as secondary haemorrhage). A patient may have to be readmitted to hospital because of haemorrhage, and may occasionally need another operation.

In studies, primary haemorrhage occurred less often after ultrasonic scalpel than with diathermy or cold-steel surgery, although bleeding was often controlled using other techniques in addition to ultrasonic scalpel.

The number of people who experienced secondary bleeding varied between the studies. In one study in which patients had one tonsil removed by ultrasonic scalpel and the other by cold-steel surgery, delayed bleeding occurred only on the ultrasonic-scalpel side in 3 out of 28 patients. In another similar study, however, bleeding occurred in two patients – one with each method. Another study showed that the number of children who had secondary haemorrhage was similar with ultrasonic scalpel (5 out of 61; 8%) or diathermy (3 out of 59; 5%).

The National Prospective Tonsillectomy Audit has reported that the lowest rates of secondary haemorrhage occurred with cold-steel surgery with stitches to control bleeding and that higher rates were associated with other techniques.

The expert advisers commented that safety is similar with ultrasonic scalpel as with other methods for tonsillectomy but that there is a slightly higher risk of haemorrhage after surgery with ultrasonic scalpel compared with cold-steel surgery.

More information about tonsillectomy

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/about guidance

This leaflet and the full guidance aimed at healthcare professionals are available at www.nice.org.uk/IPG178

You can order printed copies of this leaflet from the NHS Response Line (phone 0870 1555 455 and quote reference N1061).

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