

## **Treating cataracts with implantable accommodating lenses**

*NICE 'interventional procedures 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 the implantation of accommodating lenses can be used to treat people with cataracts in the NHS in England, Wales, Scotland and Northern Ireland. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

NICE has produced this guidance because the procedure is quite new. 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 cataracts 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. Some sources of further information and support are on page 7.

Interventional procedures guidance makes recommendations on the safety of a procedure and how well it works. 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.



### **What has NICE said?**

There are no major concerns about the safety of this procedure, but there are still uncertainties about how well it works. If a doctor wants to use implantable accommodating lenses for cataracts, he or she should make sure that extra steps are taken to explain the uncertainty and the likely benefits and potential risks of the procedure. 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.

There should also be special arrangements for monitoring what happens after the procedure.

### **Other comments from NICE**

The evidence considered when developing this guidance does not relate to the treatment of presbyopia, a common eye condition that can also be corrected using accommodating lenses. These lenses are at a relatively early stage in development and technological advances are rapidly being made.

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

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

## **Implantation of accommodating lenses**

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

A cataract is an eye condition in which the lens becomes cloudy over time. It may lead to blindness if untreated. The clouded lens can be surgically removed and replaced with a plastic artificial lens, which may be either fixed strength (monofocal) or of two or more different strengths (multifocal).

Cataract surgery is usually performed under a local anaesthetic. The clouded lens is broken into tiny pieces using concentrated sound waves. These pieces are then removed through a small cut in the cornea. An accommodating lens is then inserted in its place.

‘Accommodation’ is the process by which the lens adapts to regulate the focus of images on the retina (the light sensitive lining at the back of the eye). Once the lens is in place, the eye should be able to focus on near as well as distant objects, reducing the need for glasses.

### **What does this mean for me?**

If your doctor has offered you an implantable accommodating lens for a cataract, he or she should tell you that NICE has decided that the benefits and risks are uncertain. This does not mean that the procedure should not be done, but that your doctor should fully explain what is involved in having the procedure and discuss the possible benefits and risks with you. 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 care will I need after the operation?
- 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 nine studies on this procedure.

### **How well does the procedure work?**

There is evidence that the implantation of accommodating lenses improves the clearness of vision. This is also known as ‘visual acuity’. However, more evidence is needed that this procedure improves accommodation. Four studies reported significantly better visual acuity at near distances with accommodating lenses compared with monofocal lenses. Two studies reported significantly better accommodation with accommodating lenses than with monofocal lenses.

The expert advisers considered that this procedure is only slightly different from an existing procedure already in use. However, they agreed that the technology of accommodating lenses is advancing and that it is not yet fully understood how the lenses work.

## **Risks and possible problems**

In one study, 3 out of 24 eyes fitted with an accommodating lens required another operation to correct clouding of the lens within 1 year, compared with 8 out of 32 eyes fitted with a multifocal lens and 7 out of 24 eyes fitted with a bifocal lens. In two other studies, 14–18% of eyes fitted with accommodating lenses required a second operation. The reported rate of clouding of the lens varied between studies.

In one study, persistent swelling of the central part of the retina occurred in 3 out of 304 eyes treated. Serious bleeding during the procedure is rare. In one small study, non-serious visual disturbances such as halos, flare, flashes and glare were less common in eyes with an accommodating lens than a multifocal or bifocal lens.

The expert advisers stated that other potential risks include a loss of quality of vision, lens buckling and movement and a condition known as 'capsular contraction syndrome' in which the shape and size of the lens is affected.

## More information about cataracts

NHS Direct online ([www.nhsdirect.nhs.uk](http://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](http://www.nice.org.uk/aboutguidance)*

*This leaflet and the full guidance aimed at healthcare professionals are available at [www.nice.org.uk/IPG209](http://www.nice.org.uk/IPG209)*

*You can order printed copies of this leaflet from the NHS Response Line (phone 0870 1555 455 and quote reference N1208).*

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ISBN 1-84629-372-3

N1208 1P Feb 07

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ISBN: 978-1-4731-9181-5