

Insertion of an epiretinal prosthesis for retinitis pigmentosa

Information for the public

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What has NICE said?

There is not enough evidence to be sure about how well this procedure works or how safe it is. For this reason, it should only be done as part of a research study.

What does this mean for me?

Your health professional can only offer you this procedure as part of a research study. Details of your procedure will be collected.

Other comments from NICE

NICE said that this procedure is intended for people who have no useful sight and no other treatment options. It noted that even small improvements in sight may help these people. NICE also noted the importance of psychological counselling for patients, so that they

have realistic expectations about the procedure.

The condition

Retinitis pigmentosa is a disease that affects the layer of light-sensitive cells in the back of the eye (the retina). It leads to sight loss, which can be severe.

Surgical procedures are being developed that help to restore basic sight. NICE has looked at epiretinal prosthesis systems as a treatment option.

The procedure

An epiretinal prosthesis is an implant that is put into the eye, with the patient under general anaesthetic. The implant is attached to the retina and held in place with tiny staples. The person also has to wear a small camera on their glasses and carry a pocket-size computer. The camera sends images to the computer. The computer converts the images into data. It sends the data wirelessly to small electrodes in the implant. The electrodes stimulate healthy cells in the retina, which helps the person to see basic images.

Benefits and risks

When NICE looked at the evidence, it decided that there was not enough evidence to know how well this procedure works or how safe it is. The 7 studies that NICE looked at involved a total of 129 patients but some patients may have taken part in more than 1 study.

Generally, the studies showed small improvements in vision. Some people were better able to recognise objects, light, or direction of movement.

The studies showed that the risks of the procedure included:

- damage to the retina during or after the procedure, that needed more surgery to repair
- the staples holding the implant in place needing replacing within a few days of the procedure

- problems with the conjunctiva (a thin membrane that covers the white part of the eye) after the procedure, that were successfully treated
- infection in the eye, that was treated with antibiotics
- low pressure in the eye that needed more surgery. 1 person had to have the implant removed.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

Questions to ask your health professional

- 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 my sight 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 procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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Accreditation

