

Mechanical clot retrieval for treating acute ischaemic stroke

Information for the public

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What has NICE said?

Mechanical clot retrieval for treating acute ischaemic stroke is safe enough and works well enough for use in the NHS.

What does this mean for me?

Your health professional should fully explain what is involved in having this procedure, and discuss the possible benefits and risks with you. You should also be told how to find more information about the procedure. All of this should happen before you decide whether you want to have this procedure or not.

Other comments from NICE

NICE noted that this procedure has better results the sooner after the onset of stroke symptoms it is done. In the studies NICE looked at, patients mostly had treatment within 8 hours of their symptoms starting.

In an emergency, healthcare professionals may give treatment immediately, without obtaining your informed consent, when it is in your best interests.

Your healthcare team

A healthcare team experienced in managing acute ischaemic stroke should decide which patients should be offered this procedure. The team should include specialists with specific training and regular experience in doing the procedure, and who have the appropriate facilities and support.

The condition

Ischaemic stroke is the most common type of stroke. It happens when an artery (blood vessel) is blocked by a blood clot, cutting off blood flow to part of the brain. Without a blood supply, brain cells can be damaged or destroyed because they may not receive enough oxygen. Symptoms may include numbness or weakness on one side of the body and problems with balance, speech and swallowing. Treatment usually involves drug treatment as soon as possible after the stroke to dissolve the blood clot (thrombolysis).

NICE has looked at using [mechanical clot retrieval](#) as another treatment option.

[NHS Choices](#) may be a good place to find out more.

The procedure

Mechanical clot retrieval aims to restore normal blood flow, using a device to remove the blood clot from the artery. The patient first has cerebral angiography (a procedure using dye and X-rays that shows how blood flows through the arteries in the neck and brain) to see where the blood clot is.

The procedure is usually done with the patient under sedation, but sometimes general anaesthetic is used. A thin tube called a catheter is inserted into an artery, usually in the groin, and moved towards the site of the clot. The clot retrieval device is inserted through the catheter. Different devices and methods have been used to remove blood clots. The most commonly used device is called a stent retriever, which traps and removes the clot. The aim is to remove the clot as soon as possible, within a few hours of the stroke.

Benefits and risks

When NICE looked at the evidence, it decided that there was enough evidence to know how well this procedure works and how safe it is. The 12 studies that NICE looked at involved a total of 2648 patients.

The studies showed that 90 days after the procedure patients treated by mechanical clot retrieval had better function, compared with patients treated by thrombolysis alone.

The studies showed that there are some serious risks of mechanical clot retrieval. These include bleeding in the brain, but this can also happen when patients are treated by thrombolysis. Some patients had another stroke after mechanical clot retrieval.

NICE was also told about some other possible risks including making the stroke worse, occasionally with a fatal outcome.

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 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 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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