MRI-guided laser interstitial thermal therapy for drug-resistant epilepsy

Information for the public
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There is not much good evidence about how well this procedure works for drug-resistant epilepsy. This procedure can be used but only when patients are having regular checks to see how well it is working or if it has caused problems.

Epilepsy causes seizures due to abnormal electrical activity in the brain. Patients whose epilepsy does not respond to medications (drug-resistant epilepsy) have other treatment options to control seizures. In this procedure, a small hole is made in the skull and a laser is directly inserted into the area of the brain causing the seizures (interstitial). The laser heats up and destroys this area. The patient lies inside an MRI scanner during the procedure, to make sure the laser is put in the correct place and to monitor the treatment. The aim is to destroy the part of the brain that is causing seizures.

The NHS website may be a good place to find out more. NICE’s information on interventional procedures guidance has more about what a procedure is and how we assess them.
Is this procedure right for me?

If you’ve been offered this procedure, your healthcare professionals should discuss with you what is involved and tell you about the risks and benefits. They should talk with you about your options, and listen carefully to your views and concerns. Your family can be involved too, if you wish. All of this should happen before you agree (consent) to have the procedure. You should also be told how to find more information about the procedure. Read more about making decisions about your care.

Some questions to think about

- What does the procedure involve?
- What are the possible benefits? How likely am I to get them?
- What are the risks or side effects? How likely are they?
- What happens if the procedure doesn’t work or something goes wrong?
- What happens if I don’t want the procedure? Are there other treatments available?