

# Magseed® marker used in breast lumpectomy

This leaflet explains how Magseed® markers are used during breast cancer surgery to help you decide whether you want to take part in this pilot study, which aims to improve the process and patient experience of breast lump removal.

## What is Magseed®?

The Magseed® is about the size of a grain of rice (*see picture right*) and made of sterile surgical grade steel. It is inserted before surgery next to a breast cancer to help guide surgeons during a breast lumpectomy. In the operation the surgeon uses a handheld probe called Sentimag® to find the location of the Magseed® in the breast. Sentimag® works like a metal detector. From the skin surface, the surgeon can detect the location of the Magseed® next to the cancer and then plan the incision and operation accurately. The seed is not radioactive.



## Why are markers needed for breast cancers?

While some tumours can be felt easily, the ones detected through breast screening are not always so easy to feel (palpable). Approximately one third of all breast cancers present in this way (non-palpable).

During surgery our aim is to remove the cancer as accurately as possible. In order to do this we need the position of the cancer in the breast marked by our radiologists (X-ray doctors), using mammography or ultrasound. Traditionally, we have used a rigid wire as a marker, which requires a procedure a few hours before the operation. However, a Magseed® can be placed into the breast up to 30 days in advance, allowing patients to go about their daily lives in the lead-up to their operation. The wire marker is not always easy for surgeons to feel in the breast, but Magseed® takes us directly to the tumour.

## How is a Magseed® placed into a patient?

Like the wire, it is placed with the help of either ultrasound or a mammogram. It is simpler than having a biopsy – a needle is inserted into the tumour within the breast under local anaesthetic, and the Magseed® is placed. This is done in the Radiology (Main X-ray) Department.

## How is a Magseed® removed?

At the time of surgery, a magnetic Sentimag® probe is used to locate the marker. The probe makes sounds of different pitches and gives a reading to let the surgeon know how close

he/she is to it. The seed is then removed at the same time as the tumour.

### **What are the benefits of Magseed®?**

The seed can be placed in the breast days or weeks before surgery therefore avoiding a local anaesthetic procedure on the day of surgery. In addition, it avoids the patients having to sit on the ward waiting for surgery with the wire protruding from their breast surrounded by a bulking protective dressing. It is also anticipated that Magseed® will allow more efficient operating list timings as we will not have to wait for the Radiology (X-ray) Department to put the wires in. Some studies have shown patient satisfaction is higher using Magseed® than wires.

### **Are there any risks?**

The main risk is that the Magseed® seed moves from its original position leading to the wrong piece of tissue being removed but this is the same risk as when a wire is used.

### **Who will be doing the procedure?**

This is a pilot study of 10 Magseeds®, which have been donated by the suppliers, Sysmex UK and EndoMag. The pilot is being led by two consultant oncoplastic breast surgeons, Mr Brendan Smith and Miss Nicola Dunne, alongside our specialist breast consultant radiologists. All consultants have received training in the procedure and both breast surgeons have attended other units to watch this procedure being undertaken.

### **What happens if I don't want to take part?**

If you decide you do not wish to be part of this pilot study then you will be offered the standard treatment of using a guide wire localisation to remove your breast cancer.

For further information please discuss with your surgeon or contact your breast care nurse.

### **Breast Care Nurses**

Can be contacted on: 0118 322 7420.

Our clinical teams can be contacted via Clinical Administration Team 3 (CAT 3) on 0118 322 6890, then press the option for 'breast'.

### **More information**

If you have any questions about the procedure or this information, please speak to your surgeon or breast care nurse.

To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

RBFT Breast Unit, September 2021. Next review due: September 2023

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