

Department of plastic surgery

# Sentinel node biopsy for melanoma

## Introduction

Sentinel node biopsy is a surgical technique for finding out how far some types of cancer have spread (staging).

Cancer can spread in its early stages to the lymph nodes. These are small round fleshy structures which usually lie in groups in the neck, axilla (armpit), groin, abdomen and chest. These nodes receive lymph, a clear or whitish fluid, from every part of the body through a network of fine tubes called lymph vessels.

The first lymph node in a group that receives the lymph from a particular area of body is called the sentinel node. Any cancer cell that becomes loose moves through the lymph vessels to the sentinel node where it gets trapped and may start growing. This is usually the earliest spread or metastasis of the cancer from its original (primary) site. As the cancer grows in the lymph node, it becomes larger and the node can then be felt by the doctor or the patient. In the early stage, when there are relatively few cancer cells, the lymph nodes cannot be felt through the skin making it impossible to tell whether the cancer has spread or not.

If we can find the sentinel node that drains the primary cancer area, remove it by surgery and examine it under microscope, this early spread can be identified or ruled out. **This is a sentinel node biopsy.** The surgery to remove the sentinel node is carried out at the same time as the surgery for the wider local excision of the melanoma.

## Agreeing to treatment

### Consent to treatment

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given an opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you.

Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent then a member of your treating team will discuss the possible consequences with you.

### What is the benefit of doing a sentinel node biopsy in melanoma?

Biopsy of the sentinel node is the only reliable method for finding out if the melanoma has spread to the lymph nodes when melanoma is first detected. If the biopsy does not show any cancer in the sentinel node, it usually means that the cancer has not spread from its primary site and the chance of it coming



back is very low. This knowledge gives most people a sense of relief and reassurance.

If the sentinel node shows any presence of cancer, it means the cancer has spread and the chance of it coming back is higher. You will then have a staging CT scan and MRI head, to check if there is any further spread of the melanoma, and be referred to the medical oncology team to discuss ongoing treatment.

### **Are there any alternatives to a sentinel node biopsy?**

At present, a sentinel node biopsy is not an essential procedure; however, it does give useful information. You may wish to decline the offer to have this done based on the information provided in this leaflet.

### **How is the sentinel node biopsy done?**

There are three steps in a sentinel node biopsy.

#### **Step 1**

To find out where the sentinel node is located, a small amount of radioactive tracer is injected near the primary site of the cancer. You are then positioned under a scanner. The tracer moves from this primary site through the lymph vessels to the lymph nodes. This is seen on the scanner and recorded. The first node/nodes to take up the tracer are the sentinel node/s. The approximate position of the nodes is marked on the skin surface. This test is done in the nuclear medicine department (department 31) of The Christie usually a day before surgery. The radiation dose from the procedure is very low (similar to a spine X-ray). This scan normally takes about 90 minutes, or sometimes longer, depending on where the melanoma is and where the lymph nodes involved are.

#### **Step 2**

The surgery to remove the sentinel node/s is done in the operating room under general anaesthesia. When you are asleep, a blue dye is injected in the area of the primary cancer. This dye travels through the lymph vessels and is taken up by the sentinel node/s making them blue. The blue colour of the node helps in locating them. The sentinel lymph node/s is located through a small cut in the skin at the area marked during the scan in Step 1. These lymph nodes are then removed and sent for microscopic examination.

Sometimes (rarely) we are unable to identify the sentinel lymph node during the procedure, or it may not be possible to adequately analyse the node which has been removed.

The surgeon stitches the wound. Sometimes a thin plastic tube or drain may be put into the wound to remove any fluid that may collect. This is usually removed after 24 hours. **The removal of the primary cancer is also done at the same time.**

#### **Step 3**

The removed node/s is thoroughly examined under microscope by the histo-pathologist. If any cancer is found in the node/s, its size and site are noted and reported to the surgeon. This usually takes 2 to 4 weeks.

### **Are there any side effects/drawbacks of this procedure?**

- Yes. As it involves surgery there is a small risk of bleeding, collection of fluid in the wound and wound infection.
- There will be a scar from surgery which can become itchy and lumpy in a few patients.
- A small number of patients may have an allergic reaction to the dyes used.
- There is a small risk (1 in 100) of developing lymphoedema or swelling due to poor drainage of lymph in the leg or arm.
- The urine may be coloured blue or green after surgery due to the dye used. It is harmless and clears up in a day.

- The surgery is done under general anaesthesia and although it is very safe, complications may happen. You may need a pre-operative assessment and discussion with an anaesthetist if you have any other medical conditions.

## **Who decides whether I should have a sentinel node biopsy?**

The decision is yours. The specialist surgeon looking after you will decide whether this test is applicable for the type of cancer you have. If it is, then they will discuss the procedure and its side effects with you in detail. As this is mainly a diagnostic test with no proven survival benefit, you have to make an informed decision whether you would like to have this done. Take your time to get as much information as you need from your doctor.

## **Before the surgery**

If you decide to go ahead with the sentinel node biopsy, we will give you a date for admission and surgery. You should receive a letter from nuclear medicine with the date and time of your appointment as an outpatient to locate the sentinel node. This is usually a day before your surgery. The staff will put ink marks on the skin at the site of sentinel node/s. Please do not remove these marks. This procedure usually takes a couple of hours and then you are returned to the ward. Later on, the surgeon will see you and discuss the surgery again in detail. Please do not hesitate to discuss any concerns you have. You may be seen by the anaesthetist who will also let you know how long you have to fast before surgery.

## **After the surgery**

- Following the surgery, there is usually some slight discomfort and pain in the operated area which can easily be controlled with mild painkillers.
- If a drain was put in the wound during surgery, it is usually removed the next day unless there is lot of fluid still draining.
- After removal of the drain and inspection of the wound, you will be discharged home.
- If no drain is put in the wound, you can normally be discharged home the same day. As you will have had a general anaesthetic you will need a responsible adult to take you home and stay with you for 24 hours after the surgery.
- If you have any problems or concerns after the operation when you are at home, please contact the doctor on call at The Christie on the number given to you at the time of your discharge.
- You will usually be seen in the dressing clinic either at The Christie or at your GP surgery about a week after your surgery.
- Once the histology report is available, we will send you an outpatient appointment to discuss the findings with the surgeon. If no cancer was found in the sentinel node, then you will not need any further treatment at this stage. However, there is still a small risk of cancer coming back and we will give you a follow-up appointment at The Christie and advice about self-examination.
- If there is cancer present in the sentinel node/s, you will come back to clinic for this information to be discussed with you. A CT and MRI scan will be arranged and a referral on to the medical oncology team,  
for discussions of the possibility of systemic treatment (immune-therapy/ targeted therapy)

## Contacting the hospital

If you have any further questions, you can contact:

Dressing clinic - **0161 918 7310**

Skin cancer clinical nurse specialist - **0161 918 7587**

### Consultant plastic surgeons (secretaries):

Mr D Mowatt - **0161 446 3368**

Mr D Oudit - **0161 446 3375**

Mr G Lambe - **0161 918 7455**

Mr Kosutic - **0161 918 7054**

After 5pm and at weekends: Call The Christie Hotline on **0161 446 3658** for advice.

## Where can I get further information?

- From the specialist surgeon looking after you.
  - Macmillan Cancer Support has information on all aspects of cancer.
- Freephone **0808 808 00 00** (Monday - Friday 9am to 8pm). Calls are answered by specialist nurses, or visit [www.macmillan.org.uk](http://www.macmillan.org.uk)
- [www.cancerhelp.org.uk](http://www.cancerhelp.org.uk)

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact [patient.information@christie.nhs.uk](mailto:patient.information@christie.nhs.uk)

For information and advice visit the cancer information centres at Withington, Oldham or Salford. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for  
urgent support and specialist advice  
**The Christie Hotline: 0161 446 3658**  
Open 24 hours a day, 7 days a week