



Queen Victoria Hospital  
NHS Foundation Trust

# Sentinel Node Biopsy in the Treatment of Oral Cancer

Patient Information Leaflet



## Introduction

Please read carefully through this information sheet, which describes a new procedure we are providing at this hospital called 'sentinel node biopsy'.

This leaflet explains the procedure and aims to answer some of the questions you may have.

The same technique has been used safely for many years in cancers that occur in other areas of the body.

However, this is relatively new in oral cancer and we would like to make sure that you are happy for us to perform a sentinel node biopsy during your forthcoming operation.

Permission to offer this procedure in this hospital has been granted by the new procedure committee and outcomes of the procedure will be fed back to committee.

After you have read this information please ask us if there is anything that is not clear or if you would like more information.

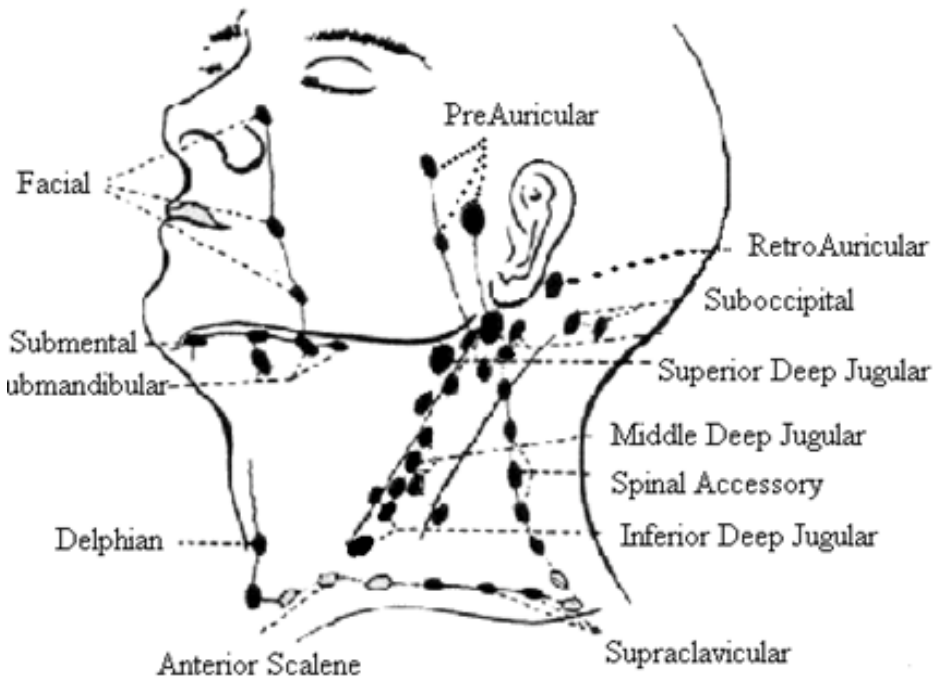
If you do not want to have a sentinel node biopsy, you can discuss alternative options with your surgeon so that we can continue to look after you and remove the cancer safely. If you do decide to go ahead we will ask you to sign a consent form to confirm this.

You are, of course, free to change your mind at any time.

## What is a lymph node?

A lymph node is part of the body's lymphatic system. In the lymphatic system, a network of lymph vessels carries clear fluid called lymph. Lymph vessels lead to lymph nodes, which are small, round organs that trap cancer cells, bacteria or other harmful substances that may be in the lymph.

Groups of lymph nodes are found in the neck, underarms, chest, abdomen and groin.



The image shows the location of lymph nodes in the neck

The most common way that cancer cells spread round the body is by tiny lymphatic channels that drain fluid from the cancer to the lymph nodes around the tumour (regional nodes).

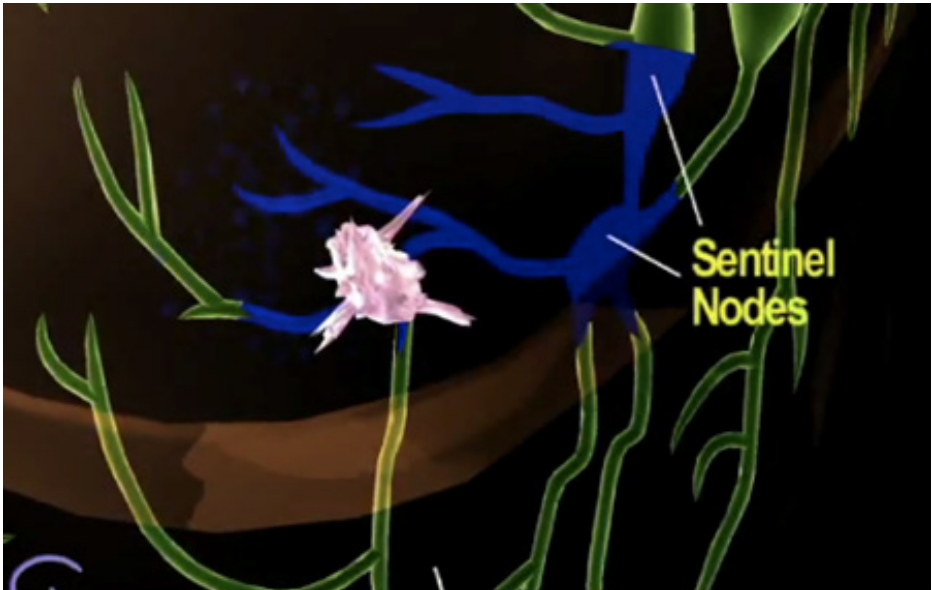
The lymph nodes act as a form of filter and catch the tumour cells.

If cancer has been 'caught' by a lymph node it can grow and multiply there and in time it can spread to the next node down the chain and so on.

## What is a sentinel lymph node?

The spread of cancer is not random but goes first to a single node and then later on to other nodes.

A sentinel lymph node (SLN) is the first lymph node to which cancer is likely to spread from the primary tumour. In some cases, there can be more than one sentinel lymph node.



Tumour (pink) and sentinel lymph nodes (blue)

## What is sentinel node biopsy?

To prevent the spread of cancer cells it has been customary when removing the main cancer (tumour) to remove the surrounding regional nodes at the same time.

This practice has now changed and with some types of cancer (breast and skin) lymph nodes are sampled for cancer rather than all the lymph nodes being removed (this is called a sentinel node biopsy). Once removed the nodes are examined under a microscope to determine whether cancer cells are present.

Evidence built-up over the last 10 years from multiple studies in hundreds of patients have shown that there is a reliable technique to identify the sentinel node in oral cancer and the practice has been used in the UK since 2005.

## What is the purpose of this procedure?

The sentinel node biopsy is based on the understanding that cancer cells spread (metastasize) in an orderly way from the primary tumour to the sentinel lymph node(s) and then to other nearby lymph nodes. A negative biopsy result suggests that cancer has not spread to the surrounding regional nodes. A positive result indicates that cancer is present in the sentinel node and therefore may be present in other lymph nodes in the same area (regional lymph nodes).

The aim of the procedure is to remove the lymph nodes which drain from your tumour. This will vary between individuals but is usually between one and three nodes. The nodes are identified through a scan we perform on the day before your operation.

Once removed, we can look at the nodes in greater detail in the laboratory to make sure there is no cancer in them. Because they are examined so thoroughly we can pick up any microscopic deposits of cancer (micro-metastases), which may otherwise be missed, and this will help us to determine the stage of cancer (extent of the disease within the body) and decide if you need any extra treatment after your operation, such as further surgery or radiotherapy.

## Why have I been chosen for a sentinel node biopsy?

You have been recently diagnosed with an early cancer and are due to undergo surgery for this. We do not believe the cancer has spread to the lymph nodes from all the tests you have already had done. However, because it is so important to establish the spread of the cancer we either remove all the lymph nodes in the same side of the neck as the tumour or we could identify the sentinel node using the technology we have described above.

## Do I have to have a sentinel node biopsy?

No, it is your choice whether to proceed with this treatment. However, there is good evidence to support this treatment being offered to patients with early oral cancer and, as such, the National Institute

for Health and Care Excellence (NICE) now recommends we should offer it to all patients that we think would benefit from it. We are trying to refine our treatment regimes so that patients get exactly the treatment needed to eradicate the cancer and nothing more or less.

## What can I expect to happen if I agree to a sentinel node biopsy?

You will be asked to attend the nuclear medicine department at Maidstone Hospital on the day before your surgery for a special scan using a radioactive tracer which enables us to identify the relevant sentinel lymph node(s).

The surgeon will inject a very low dose of a \*radioactive substance and/or blue dye near the tumour and then use a scanner to locate the nodes(s) containing the radioactive substance. The scans are quick and not painful, although sometimes they need to be done up to two hours after the injection.

\*Please note that the amount of radioactivity from this tracer is lower than you would get from a head CT scan or a transatlantic flight. It is completely removed by the body and not associated with side-effects.

On the following day you will have surgery to remove the tumour and the sentinel lymph node(s) at Queen Victoria Hospital, East Grinstead. You will have been advised when to arrive at the hospital. This may be on the day before surgery (after your scans) or you may be asked to report to Main Theatres on the day of surgery.

During your operation, whilst you are under general anaesthetic, the surgeon will inject the area with blue dye and, using the markings from the scans taken the day before, remove the nodes by making a small incision (about 1 inch) in the skin overlying them node(s). Once successfully removed we will proceed with the removal of the tumour.

The sentinel node(s) will be checked for the presence of cancer cells by a pathologist (a doctor who identifies diseases by studying cells and

tissue under a microscope). This will take 2-3 weeks and your surgeon will let you know the result at your follow-up appointment.

## What are the side-effects and disadvantages of SLN biopsy?

Sentinel node biopsy has been performed for several years and there are very few side-effects associated with it, but they include:

- Pain and bruising at the biopsy site.
- Blue dye may stain your urine - we inject blue dye into the tissues around your tumour, and since the dye is removed by your kidneys, for about one day after your operation, your urine will be stained blue.
- Hypersensitivity – although rare, there have been a few reports of people being allergic to the blue dye used to find the sentinel node. This is more common in people who suffer allergies to other things. If you tend to suffer from allergies, please let us know.

## What are the possible disadvantages and risks of sentinel node biopsy?

Sentinel node biopsy has been shown to be very safe and has a very low complication rate.

## What are the possible benefits to having a sentinel node biopsy?

Should the biopsy results show no spread to the regional lymph nodes we will not need to carry out the standard lymph node removal. This will result in a speedier recovery.

## Further information

If you or your family have any questions or require any further information, please do not hesitate to contact our Macmillan head and neck clinical nurse specialists:

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