Sentinel Node Biopsy

Breast cancer can spread along small lymph channels to the lymph nodes in the armpit. During your breast cancer surgery the surgeon will remove a small number of lymph glands from your armpit to check if cancer cells have moved there. This information helps the doctors decide what further treatment you require for your breast cancer.

The sentinel node is the first lymph node in the armpit to which breast cancer can spread. The aim of sentinel node biopsy is to find this node and remove it. If it is free from cancer cells you will need no further surgery to the lymph glands, your recovery will be quicker and the risk of developing side effects is significantly reduced.

Recent studies have shown that the removal of the sentinel node is a safe and accurate procedure which is now being offered by consultant surgeons as standard treatment. However, some women may have a clear sentinel node when other lymph nodes in the armpit are affected, but this happens in less than 5% of cases.

By removing just the sentinel node, the risk of developing shoulder stiffness, pain and lymphoedema associated with removing all the lymph glands is greatly reduced. Women do not usually require a drain in their armpit, and their recovery is quicker.

Sometimes there is more than one sentinel node and so more than one will be removed. When the node/nodes are examined under the microscope by the pathologist, if they are clear nothing further will be required. However if the node/nodes are affected you will require more treatment. This will involve either surgically removing more lymph nodes or receiving radiotherapy to them, or you may be offered to enter a research trial. You will normally have the results of the sentinel node biopsy 10-14 days after your operation.

Sometimes, it is not possible to find the sentinel node, and it may be necessary to remove some or all of the lymph nodes. You will be asked to sign a consent form giving your permission for this if it happens. Rarely during your operation the Surgeon may find that the lymph nodes look as if they have cancer in them They may then remove all of them, again, having obtained your permission to do so.

In order to identify the sentinel node a small injection of a radioactive fluid is given close to the nipple before your operation. (The radioactivity contained in the injection is very small, about 1/10 -1/20th of background radiation from natural sources that a person would receive in a year). A scan will be performed before surgery to see if the injected fluid has shown up a sentinel node. During your operation a blue dye will be injected into your breast to help identify the sentinel node. The radioactivity and the blue dye together give the most accurate assessment of the lymph glands.

This blue dye will temporarily discolour the skin of your breast, urine and stools and the discolouration of your breast may last for several months. It may also make you look rather grey and ill but you will not feel ill. Very rarely an allergic reaction to the dye may occur (in less than 1% of women) but this can be treated while you are under the general anaesthetic. If you wear contact lenses you may notice that they will have a blue tinge to them so it is recommended that you don’t wear them during your hospital admission.
The Benefits of Sentinel Node Biopsy

1. Quicker recovery.
2. Shorter hospital stay.
3. No drain in the armpit.
4. Less arm discomfort and shoulder stiffness.
5. Better arm mobility.

The Disadvantages of Sentinel Node Biopsy

1. Temporary discolouration of skin, urine and stools.
2. Injection of radioactivity may be a little sore.
3. If node/nodes positive, more treatment, either surgery or radiotherapy to the armpit.
4. May not be able to locate sentinel node and further surgery will be needed to remove all lymph glands.
5. If lymph nodes are large and hard, an axillary clearance is performed.
6. In less than 5% of cases the sentinel node is falsely negative.