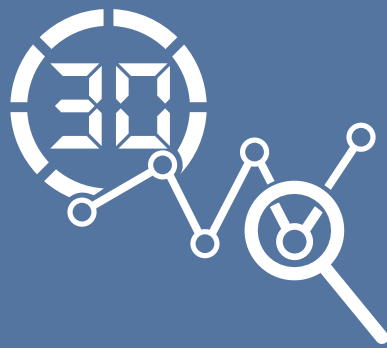




Above: Professor Owen Ung, with patient Glennis Legg, said the OSNA machine enabled surgeons to learn whether the cancer had spread and make a decision about continued surgery.

Australian-first breast tumour analysis

Royal Brisbane and Women's Hospital (RBWH) and Pathology Queensland are leading the nation with the installation of state-of-the-art technology able to detect the spread of breast cancer to the sentinel lymph nodes with 96 per cent accuracy.



Women undergoing breast cancer surgery can now have results within 30 minutes that show the extent of their cancer, enabling doctors to decide whether further surgery is needed before the patient wakes up.

One Step Nucleic Acid Amplification (OSNA) has revolutionised breast cancer surgery, helping surgeons determine whether the lymph nodes need to be removed.

About 300 women undergo breast cancer surgery at the RBWH each year. Thirty per cent of those will have cancer that has spread to the lymph nodes in the armpit and as many as 20 per cent of those cases will require further surgery.

“During surgery, the breast cancer is removed and a sentinel lymph node, which is the first node that drains the tumour, is sent to the pathology laboratory for testing while the patient is still under anaesthetic,” RBWH Director of Breast Health Professor Owen Ung said.

The lymph nodes in the armpit (axilla) are often the first place that breast cancer will spread outside the breast. The need for surgery to the armpit and further treatment will be influenced by whether there are cancer cells in the lymph nodes.

OSNA allows results to be obtained while the patient is still asleep in surgery, avoiding unnecessary axillary dissections and enabling additional surgery when required.

Director of Anatomical Pathology at Pathology Queensland, Professor Sunil Lakhani said the speed and accuracy of the testing means results can be relayed to the theatre in as little as 30 minutes with no follow-up analysis required.

Patients diagnosed early benefit greatly from the minimally invasive sentinel node biopsy and accurate OSNA method,

experiencing fewer complications, less stress and less time away from work, family and everyday life.

In 2010, Glennis Legg underwent treatment for cancer in her left breast. At her five year follow-up, Glennis was diagnosed with breast cancer on the right side.

The second diagnosis came as a huge shock to Glennis, husband Ivan and their family.

Glennis said her second experience with breast cancer was vastly different to her previous diagnosis in 2010, when she endured an agonising month-long wait for results.

“The waiting, when you don’t know, it’s a long time,” Glennis said.

Glennis underwent a wide excision of her tumour and sentinel node procedure at RBWH in November 2014. During the operation, OSNA determined that the sentinel node had a significant number of cancer cells and an immediate decision was made to remove the remaining lymph nodes.

“When I woke up from surgery, they were able to tell me everything,” said Glennis, adding that she felt well informed and better able to consider further treatment options.

Following her surgery, further treatment recommendations were made based on the outcome from her surgery and subsequent pathology results.

After completing radiation treatment in March, Glennis, now aged 71, is doing well. “I feel really good,” she said.