WHAT IS A SENTINEL LYMPH NODE?
A sentinel lymph node is defined as the first lymph node to which cancer cells are most likely to spread from a primary tumour.

WHAT IS A SENTINEL LYMPH NODE BIOPSY?
A sentinel lymph node biopsy is a procedure in which the sentinel lymph node is identified, removed and examined to determine whether cancer cells are present.

A positive sentinel lymph node biopsy result suggests cancer is present in the sentinel lymph node, indicating that the cancer has started to spread and may be present in other nearby lymph nodes (called regional lymph nodes), and possibly other organs.

WHAT ARE LYMPH NODES?
Lymph nodes are small organs that are part of the body’s lymphatic system. They are found throughout the body and are connected by lymph vessels. Lymph nodes are organised in groups and are located in a number of locations, including:

- the neck
- underarms
- chest
- abdomen
- groin

Lymph nodes are important in helping to determine whether cancer cells have developed the ability to spread to other parts of the body.

Many types of cancer spread through the lymphatic system, and one of the earliest signs that the cancer has spread, is its presence in the nearest lymph nodes.
Potential to offer patients an alternative to more extensive surgical solutions.

Estimate the risk of tumour cells having developed the ability to spread to other parts of the body.

Sentinel lymph node biopsy is a minimally invasive surgical procedure that takes less theatre time, and results in patients having quicker recovery. It can also lead to patients being discharged much earlier compared to elective neck dissection, which is invasive surgery with significant morbidity and risks.

Currently accepted management policies are that patients with a greater than 20% chance of subclinical metastases, based on the size of the primary tumour, should undergo elective neck dissection (END).

However, such a policy can lead to up to 80% of patients, receiving the END procedure and not benefitting, but still be subjected to the risks of the procedure.

WHAT ARE THE BENEFITS OF PERFORMING A SENTINEL LYMPH NODE BIOPSY IN HEAD AND NECK CANCER PATIENTS?

1. Confirm the presence of regional metastases to determine treatment and prognosis of head and neck cancer patients.

2. Identify the stage of cancer.

3. Estimate the risk of tumour cells having developed the ability to spread to other parts of the body.

4. Potential to offer patients an alternative to more extensive surgical solutions.

5. Sentinel lymph node biopsy is a minimally invasive surgical procedure that takes less theatre time, and results in patients having quicker recovery. It can also lead to patients being discharged much earlier compared to elective neck dissection, which is invasive surgery with significant morbidity and risks.

WHICH PATIENTS COMMONLY RECEIVE A SENTINEL LYMPH NODE BIOPSY?

Patients with head and neck cancer can undergo a sentinel lymph node biopsy. Additionally, other sites can also be targeted depending on the type and site of the cancer.

CURRENT PERCEPTIONS OF SENTINEL LYMPH NODE BIOPSIES

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WHO PERFORMS THE SENTINEL LYMPH NODE BIOPSY?

Surgeons often perform sentinel lymph node biopsies in head and neck cancer patients. In some locations, specialist surgeons such as plastics or surgical oncologists will perform the procedure. This procedure is multidisciplinary, and surgeons must ensure that nuclear medicine specialists, radiologists, and pathologists are actively involved with the successful implementation of this procedure.

RECOMMENDATIONS

A multidisciplinary team (MDT) approach, whereby clinicians from different specialties collaborate and interact as a team, has become increasingly important in the treatment of head and neck cancer in order to provide effective, timely, and evidence-based management of these complex and diverse tumours.

Members of the MDT may vary per institution, depending on available resources and clinicians, but a team typically includes head and neck surgeons, radiation and medical oncologists, specialists in medical imaging, nurses, and social workers. One of the benefits of a multidisciplinary approach to head and neck cancer is that it allows for patients to be offered an increasing array of treatment options from a team of specialists who keep abreast of the latest developments within their respective fields.

HCPs working in head and neck cancer should be aware of the latest techniques that are available to assess the staging of their patients. Determining whether the cancer has spread is crucial for patient’s prognosis and ensuring they receive optimum treatment.