

- **During Admission:**

Your blood pressure will be checked and blood withdrawn for testing on the day of admission. You may also need a repeat electrocardiogram if ordered by the anaesthetist. The team of surgeons and anaesthetists will then meet with you in ward to explain regarding the operation and written consent will be taken. You will be guided by nurses regarding the pre-operative preparation for example, whole body shower and hair clipping techniques. The doctors will then mark the site of the operation to avoid wrong site surgery. You are expected to fast from 2 am in the morning on the day of the operation. You need to be fasted for at least 6 hours. If you are a diabetic patient, a branula will be inserted prior to the surgery with intravenous drips given. On the morning of the operation, you will be ushered to respective departments if you are planned for a hookwire procedure or a sentinel lymph node biopsy (dual methods).

- **Operation**

- i. Anaesthesia
- ii. Surgery
 - Breast conserving Surgery
 - Intraoperative Radiotherapy (IORT)

- **After Surgery**

Your wound will either be inspected before your discharge and you will be given date for wound inspection at our Breast Cancer Research Centre. A protective permeable dressing will be sprayed onto your wound after it is inspected. There is no need for removal of stitches as your wound will be sutured using an absorbable suture. You are allowed to shower on the second day after operation, but try not to soak the dressing. Avoid rubbing soap or shower gel directly onto your wound. Scars may be raised, red or swollen at first, but should gradually settle and will fade over time.

Before the discharge, most of the time, you will expect a visit by our breast care nurse, lymphoedema physiotherapist, occupational therapist and breast cancer survivor team (BCWA) whom will advise you on the wound care, basic physiotherapy for post operative patients and expectations after discharge. Generally, it takes about 4 to 6 weeks for complete healing process.

- **Follow Up**

For any emergency during office hour, you can visit the centre at 6th Floor, Menara Utama or call 03-79493642 to speak to one of our breast care nurses.

CONTACT NUMBER

Breast Cancer Resource Center (6C) UMMC

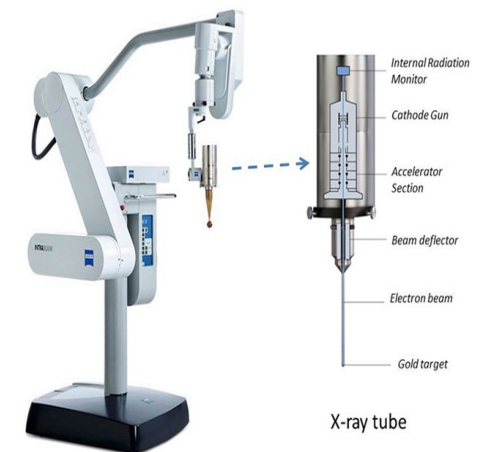
Monday - Friday - 8:00 am - 5:00pm

Tel: 03- 79493642 or 03-79492639



**UNIVERSITY
OF MALAYA**
MEDICAL CENTRE

Patient information For IORT Treatment for Breast Cancer



Intrabeam Floor Stand

Figure 1 : IORT Machine - Intrabeam system with XRS

What is IORT?

IORT stands for IntraOperative RadioTherapy and TARGIT stands for **TAR**geted IntraOpera-tive RadioTherapy. IORT is a technique of delivering radiotherapy directly to the tissues surrounding a cancer (also known as the tumour bed) after its surgical removal.

* INDICATION *

Many women with early breast cancer would require radiotherapy after surgery and few criterias need to be fulfilled. There are 2 types of indication and treatment using IORT:

1. Low Risk Group (Single Dose)

2. High Risk Group (As Boost dose)

A. Criteria for LOW RISK PATIENT:

INCLUSION CRITERIA

- Age > 50 years old
- Histology: Invasive Ductal Carcinoma or other favourable subtypes.
- Grade 1 or 2
- Tumour size less than 3cm
- ER positive
- No Lymphovascular invasion (LVI)
- Lymph node negative on imaging

EXCLUSION CRITERIA

- Invasive lobular carcinoma.
- Multicentric and multifocal carcinoma.
- Previous history of neoadjuvant chemotherapy.
- Pregnancy.
- Connective tissue disease e.g. scleroderma.

B. Criteria for HIGH RISK PATIENT:

TARGET B (TARGETed Intraoperative radio Therapy – Boost)

TARGET-B: An International Randomised Controlled Trial to compare targeted intra-operative radiotherapy boost with conventional external beam radiotherapy boost after lumpectomy for breast cancer in women with a high risk of local recurrence

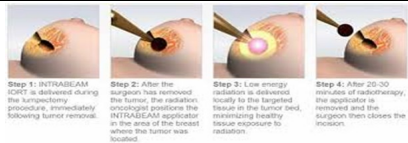
INCLUSION CRITERIA

- < 46 years of age
- > 45 years of age and with one or more of the following poor prognostic factors:
 - a. Grade 3
 - b. ER and/or PgR negative
 - c. Invasive Lobular carcinoma
 - d. Extensive intraductal component (EIC)
 - e. Lymphovascular invasion
 - f. Axillary nodal involvement
- Large tumour which has responded to neo-adjuvant chemo or hormone and now suitable for breast conserving surgery

EXCLUSION CRITERIA

- Bilateral breast cancer at the time of diagnosis
- Patients with any severe concomitant disease that may limit their life expectancy
- Previous history of malignant disease does not preclude entry if the expectation of relapse-free survival at 10 years is 90% or greater (e.g., non-melanoma skin cancer, CIN etc.) or relapse-free survival at 10 years is 90% or greater (e.g., non-melanoma skin cancer, CIN etc.)

* RISKS *



- Redness and soreness of the skin
- Tiredness
- Possible effect on wound healing (firmness of the scar)
- Serious wound complications are rare

* ADVANTAGES *

- It allows direct radiation to the affected area therefore reducing some of the treatment side effects.
- It avoids gap between surgery and external beam breast radiotherapy as it is given during surgery. This may improve treatment efficacy.
- IORT is given as a single dose, while EBRT is given on a daily basis for a 3-5 weeks after surgery. Therefore the IORT treatment time is shorter and avoids prolonged daily visits to hospital.
- Some patients may require IORT as the sole radiation treatment while others may also need EBRT in addition to IORT. If EBRT is required, it is delivered after surgery and the total duration is limited to 3 weeks only as opposed to full EBRT course which involved approximately 5 weeks of therapy. Therefore, it is as good as EBRT in reducing risk of cancer recurrence.

* PROCEDURE*

Pre admission preparation and admission:
 Procedure will be done in operation theater during surgery requiring general anaesthesia. You will need pre-operative assessment by the anesthetist in Anaesthetic Clinic prior to the operation date. The Anaesthetic Clinic is located at 3rd floor, Menara Timur. Your fitness to undergo surgery under general anaesthesia will be assessed by the anaesthetist and pre-operative blood test, x-ray

* PROCEDURE*

- investigations will be done during your visit to the clinic. Admission is required before surgery in general surgical ward. You will also be requested to purchase several items upon admission for the surgery (based on the necessity after discussion with your managing surgeon):
 - A) **Patent Blue V** – for patient undergoing sentinel lymph node biopsy
 - B) **Hook Wires** – for patient indicated for removal of non palpable lump in the opposite breast during the same operation
 - C) **Surgibath solution (2 bottles)** – head to toe wash to reduce the risk of infection. Patients are advised to follow the given instruction on the usage by the ward nurses upon admission to the ward.
 - D) **Axillary hair clipper** – We do not encourage hair shaving before admission and thus, any armpit hair needs to be clipped on the morning prior to the surgery.

• Arrival to UMMC

You will need to register at the admission counter on Level 1, Menara Selatan (South Tower), UMMC. You will then be directed to the relevant ward.