

PATIENT INFORMATION STEREOTACTIC ABLATIVE RADIOTHERAPY FOR SMALL LUNG NODULES

What is STEREOTACTIC ABLATIVE RADIOTHERAPY (SABR)?

Stereotactic Ablative Radiotherapy or Stereotactic Body Radiotherapy (SBRT) is a precise way of delivering a high dose of radiation therapy to a small, localised lesion within the lung. This type of treatment requires a high degree of accuracy.

The treatment uses a standard linear accelerator (linac) with specialised accessories and immobilisation. The machine produces very small and accurate beams designed to deliver the dose of radiation therapy to the small treatment targets. The Linac will move around the patient to deliver the treatment.



Generally this type of radiation therapy requires one CT-Simulation appointment and then 4 to 5 treatment appointments. The first treatment appointment will be a trial run to check patient positioning and the accuracy of the imaging of the treatment site during a treatment course.

What is involved in the CT-SIMULATION procedure?

CT-Simulation: This is the first step in the treatment planning process. This session generally will take 60 minutes and involves:

- **Immobilisation:** This is important to help keep patients still, due to the high degree of accuracy required for this type of treatment. (See photo below)



- **Recording the set-up instructions;** this is again important for the treatment set-up accuracy.
- **CT scanning** of the treatment region, incorporating the motion of the tumour.
- Finally, an **Education Session** with the nursing staff. Nurses will discuss any treatment side-effects and the management of these. A separate Information Sheet will be provided.

The next appointment after CT-Simulation is the Verification appointment; this appointment is given at the time of CT-simulation. During the period of time, usually 2 weeks, between the CT-Simulation and the Verification appointment, the Radiation Oncology staff will prepare the treatment plan.

What happens on the VERIFICATION DAY?

Verification: This appointment is used to verify that the treatment plan can be delivered accurately. The appointment will be the same length as a typical treatment appointment (45-60minutes). The verification procedure is as follows:

- The patient is set up in the same position as CT-Simulation
- The Linac is then carefully rotated around the patient
- X-rays are taken to verify the treatment accuracy
- It is important to note NO treatment is delivered on this day; it is purely for quality assurance purposes.

Any adjustments to the planned treatment can then be made prior to the first treatment appointment, ensuring no delay in the treatment delivery process.

What happens on the TREATMENT DAY?

The duration of this appointment depends on the treatment plan. Generally, the appointment is 45-60 minutes in duration. Treatment involves multiple 'arcs' which involves the machine rotating around the patient whilst the treatment is delivered.

The treatment procedure will involve:

- Set up with immobilisation equipment.
- Recording and verifying the set-up measurements.
- Taking X-rays to verify treatment accuracy.
- Delivery of the treatment.

The staff will inform you when they are ready to commence:

- Staff exit the treatment room during the verification X-rays and treatment; however, patients are monitored by cameras and microphones.
- X-rays will be taken prior to and after each treatment fraction.
- Each arc will take approximately six to ten minutes to deliver.
- Patients do not feel anything during treatment; a buzzing noise will be heard while the treatment arc is delivered.
- Patients need to ensure they lie still during the treatment process.

After Treatment Care

- Patients will be observed by nursing staff for 30 minutes after treatment.
- Patients are given instructions regarding medications, follow-up appointments, and whom to contact in case of problems/emergencies.

**If you have any concerns or for further information,
please contact the Radiation Oncology Department
Tel: 02 4014 3125 Monday-Fridays between 8.00am-4.30pm**