STEREOTACTIC ABLATIVE RADIATION THERAPY TO THE LUNG  
(Pre-treatment patient education sheet)

Stereotactic ablative radiation therapy treatments are used to treat small lung cancers. Advances in technology allow your health care team to be very precise in the delivery of a focused, high dose of radiation. The treatment is only aimed at the area of the chest where the cancer is located. This leads to a very effective treatment given in just a few days (3 - 8 treatments) with few side effects.

This technique is only available at the General site of The Ottawa Hospital.

**Before Treatment**

**First appointment:** You will meet with your radiation oncologist, who will explain the benefits and risks of radiation treatments. You will also meet with your patient designated nurse (PDN), who will provide you with the information needed to contact your treatment team.

**Treatment planning appointment:** You will have a planning CT scan (computed tomography scan). The planning CT scan appointment will last between 45 minutes to an hour. The scan is painless and only takes about 10 minutes to complete. Most of the appointment time is used to explain the procedure, making sure you are well positioned for the scan and that your breathing is regular. After the scan, the radiation therapist will place small tattoos on your skin using a small needle. These permanent marks are necessary to make sure you are in the correct position during your radiation therapy treatments.

**While preparing you for your scan, the radiation therapist will need to touch you in order to adjust your body position. In addition, you will need to be partially undressed as the area to be treated will need to be visible to the therapist.**

Once your planning CT scan is done, it usually takes 1 to 2 weeks to prepare your radiation therapy treatment plan. These planning processes, along with many quality and safety checks, are needed to make sure you receive the best and safest treatment available.

**Treatment**

Once your treatment plan is ready you will start your treatments. On your first day a radiation therapist or nurse will meet with you. He or she will review possible side effects and answer any questions you may have about the treatment. Plan to be at the Cancer Centre for up to 1 hour every day; sometimes delays occur.

**Radiation treatments:**

- Treatments are given on weekdays (Monday to Friday). The time interval between your treatments will be decided by your radiation oncologist. One or two days between treatments is common.
- They usually take a few minutes, but you may be in the treatment room for about 15-30 minutes each day. Most of the appointment time is used to make sure the radiation is given to the exact area where the treatment is needed.
You will have an appointment with your radiation oncologist during the course of your radiation treatments. Each radiation oncologist has a set day and time when they meet their patients in a “drop-in” clinic format.

Side effects from radiation treatment

There are two types of side effects: early side effects and late side effects. **Early side effects** happen during or soon after your radiation treatment. Most early side effects are mild. They typically start to get better two weeks after your last treatment but they can continue for a few weeks or months after the last treatment. **Late side effects** usually happen a few months after your last treatment; sometimes they develop years after the treatment.

Possible early side effects of stereotactic ablative radiation therapy to the lung:

- fatigue
- cough
- soreness with swallowing

Possible late side effects of stereotactic ablative radiation therapy to the lung:

- chest wall pain
- weakening of the ribs (increases your risk of rib fracture)
- inflammation of the lung (cough, shortness of breath and fever treatable with steroids)
- damage to the nerves leading to the arm or nerves within the spinal cord (extremely rare. Great care is taken to avoid this from happening)

Your radiation oncologist will explain these side effects and the risks for your particular situation, as they will vary depending on the location of the tumor.

For more information please ask a member of your radiation treatment team.

2015-03-30

The Ottawa Hospital
Radiation Medicine Program