RADIATION THERAPY TO THE BREAST  
(Pre-treatment patient education sheet)

Radiation can be used to treat cancers of the breast and/or the lymph glands that drain from the breast. The treatment is not to the full body. It is aimed at the breast and chest wall where the cancer was located. After surgery, radiation is often given to decrease the risk of cancer returning to the area.

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). You may be asked to have an intravenous line placed temporarily in your arm/hand so that dye (contrast) can be given during the scan. This will help improve the quality of the scan. The planning CT scan appointment will last between 30 to 40 minutes. The scan is painless and only takes a couple of minutes to complete. Most of the appointment time is used to explain the procedure and making sure you are well positioned for the scan. Some patients require a custom plastic shell to ensure proper positioning of the breast/chest wall for the scan and the treatments. After the scan, the radiation therapist will place small tattoos on your skin. These permanent marks are necessary to make sure you are in the right 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 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 five days a week (Monday to Friday) over a period of 3 to 5 weeks
- They usually take a few minutes, but you may be in the treatment room for about 15-20 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 on a regular basis during 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 sometime during 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. The side effects that you may experience will depend mainly on the dose given. But you should be aware that even patients who receive the same dose of radiation to the same area of the body may have different side effects.

**Possible early side effects of radiation therapy to the breast:**
- skin reaction much like a sunburn (skin reaction can be worse if you have had chemotherapy)
- fatigue
- some patients experience shoulder discomfort or a sore throat
- blistering in the skin folds of the underarm and breast
- ‘shooting’ pains in the breast that last a few seconds
- lymphedema of the arm. (Lymphedema is caused by swelling that slows the flow of lymph fluid. Prevention is best, so you may want to ask your doctor if you should seek advice from a lymphedema specialist).

**Possible late side effects of radiation therapy to the breast:**
- darkening and/or thickening of the skin covering the breast on the treated side
- scarring of a small portion of lung on the treated side (rarely causes any symptoms)
- small risk of thinning of the ribs in the treated area (increases your risk of rib fracture)
- small risk of damage to the heart when treated on the left side
- development of a new cancer in the treated area many years after treatment (rare)

Your Radiation Oncologist will explain these side effects and the risks for your particular situation.

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

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The Ottawa Hospital
Radiation Medicine Program

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