Instructions for Receiving Radioactive Iodine Therapy for Hyperthyroidism

This handout gives instructions for patients who will receive radioactive iodine therapy after a thyroid uptake and scan for hyperthyroid.

What is radioactive iodine?

You and your doctor have made the decision to treat your thyroid condition with radioactive iodine, specifically the isotope Iodine-131 (represented as I-131). Treatment with radioactive iodine will selectively destroy thyroid tissue so that your thyroid will not continue to over-produce thyroid hormone.

In most cases, just enough thyroid tissue will be destroyed so that, eventually, your thyroid will produce the correct amount of thyroid hormone. Once in a while, not enough thyroid tissue will be damaged, and a second treatment will be required.

If too much thyroid tissue is destroyed, a thyroid hormone supplement pill, levothyroxine, will be prescribed. This medicine is a synthetic version of the thyroid hormone that your body produces, and it is safe, effective, and inexpensive. (It is taken by over 10 million Americans).

In any case, because your thyroid condition will be changing, you will need to see your doctor after treatment, even if the treatment is completely successful.

How does radioactive iodine work?

I-131 is absorbed rapidly in your intestines and travels through the blood stream to your thyroid, where it is taken up. What isn't taken up by your thyroid is mostly passed in the urine over the first 24 hours after your iodine dose.

The iodine taken up by your thyroid is retained for a longer period of time. The radioactive particles emitted by the I-131 in your thyroid come to rest within about a millimeter of where they are emitted,

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damaging thyroid tissue along the way. This damage will cause your thyroid cells to decrease their production of thyroid hormone, in most cases permanently. The change in your thyroid condition will become noticeable 6 to 12 weeks after the therapy.

I-131 also releases gamma rays, which are similar to X-rays. These gamma rays can be detected by special detectors and are useful for diagnosis.

These gamma rays can be a source of unwanted radiation for those physically close to you in the first 48 hours after your treatment. Follow the precautions below to prevent others from absorbing some of the I-131 that is contained in your urine and saliva, and to minimize the radiation exposure they will get from you after treatment.

The radiation dose you receive is concentrated in your thyroid. To minimize radiation to other parts of your body, especially your bladder, we suggest that you drink plenty of fluids and empty your bladder often during the first 24 hours after your dose.

What is involved in radioactive iodine treatment?

You will have a thyroid uptake and scan. Once we have reviewed the results of your test dose in order to calculate the strength of your therapeutic dose, we will obtain your therapeutic iodine dose. After your dose is ordered, it will take about 1 hour to get here.

You will need to fast for 2 hours before and after receiving your therapy dose. While fasting, you are allowed to drink water.

Specific Iodine-131 Treatment Instructions

Before your treatment:

Pregnant women cannot receive the therapeutic radioactive iodine, as it might be harmful to the fetus. Women of childbearing age may be asked to get a pregnancy test (blood test) on the day before therapy. You must alert us if you are pregnant, even if you are not planning on completing the pregnancy.

Stop thyroid hormone medication (synthroid, cytomel, levothyroxine, lithyroini) 4 weeks before your treatment. Talk with your doctor before you stop taking this medication.

Stop your Propothyouracil (PTU) or Methimazole thyroid medication 4 days prior to your treatment visit. Talk with your doctor before you stop taking this medication. Most other medications can be taken as usual before treatment, including propranolol.

Do not eat any solid foods on the morning of your treatment visit.

After your treatment:

First 48 hours:

- Don't eat any solid foods until 2 hours after your treatment. Drink plenty of clear fluids (water, juice, etc).
- Empty your bladder every hour during the first 8 to 12 hours. Get up at least once during the night on the first night after your treatment to empty your bladder. Flush the toilet twice to get rid of leftover radioactivity from your urine.
- Do not spend more than a few minutes near other adults. Stay at least 3 feet away. Do not go into the same room with any infants or children. Do not share a bed with anyone for those first 48 hours after treatment.
- If you were taking PTU or Methimazole thyroid medications prior to your treatment, resume these at the same dose at the end of the 48 hour period after your treatment. Use the same dose you were taking before the treatment. For example, if you are treated with radioactive iodine on a Tuesday, you can start taking your thyroid medications again on Friday morning.

First 7 days (including the first 48 hours):

- Don't share silverware, glassware, plates, food, etc. with anyone, because of possible radioactivity in your saliva. Your plates, silverware, glassware, etc. may be safely reused if washed carefully.
- Don't kiss anyone.
- Avoid sexual activities.
- Flush the toilet twice.
- Wash your hands carefully.

Long-term:

- By the end of 1 week, no significant radioactivity is left in your body, and no further precautions are needed.
- Rarely, people have neck soreness or a sore throat about 1 week after the radioactive iodine dose. This is not serious. Take Tylenol, aspirin, or ibuprofen to relieve the symptoms. If the pain becomes severe and does not respond to these medications, call your doctor or contact the Nuclear Medicine clinic.

Questions?

Call 206-598-6200

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Clinic staff are also available to help at any time.

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206-598-6200

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- You will need to schedule a follow-up visit with your doctor about 4 to 6 weeks after your treatment to check your thyroid function. This is the soonest we would expect changes as a result of your treatment.

In most cases, treatment with radioactive iodine is safe and effective and has almost no side effects.

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