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NUCLEAR REGULATORY COMMISSION  
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University Hospital

Health Alliance

234 Goodman Street  
Cincinnati, Ohio 45219-2316

Name: Edward B Silberstein, MD

Address:

City:

Date: 4/7/16

Rx Using the Society of Nuclear Medicine  
Guidelines (enclosed), plus our safety  
sheet and out patient treatment  
summary (enclosed) we have no  
adverse events from using up to  
220 mCi 1-131I

(Signature Required)

Edward B. Silberstein, M.D.

AS 284 2450

Nuclear Medicine

513-584-9032

NPI #

1831205889

REFILL X

PHARMACY LABEL

Patient Name: \_\_\_\_\_

Date: \_\_\_\_\_

You have received radioiodine to treat your thyroid condition. Most of the radioiodine will be eliminated from the body during the first week after treatment. The radioiodine will leave through your urine and stool.

After your discharge precautions are necessary to keep the level of radiation which the radioiodine in your body gives to members of your family below the level the Nuclear Regulatory Commission (NRC) has set. Time and distance determine the very small amount of radiation you could give others. Please follow the specific instructions below **for one week** (unless a lesser time period is designated) to keep radiation dose to your family well within NRC regulations.

Take the anti-vomiting pills, one of each, every 12 hours for 5 days, including the day of treatment.

Drink at least ten 8-ounce glasses of any liquid daily for the next week. Never let your mouth feel dry. Drink enough to make you urinate hourly.

Chew gum, suck candy (all sugar-free) for a week, constantly when awake.

Wash your mouth out with water for one week every 3 hours, *using only water* (twice each time as it takes 30 seconds), and brush your gums and tongue, inside of your cheeks, roof and floor of your mouth with a soft toothbrush. Gargle with water each time you brush your mouth out to clear your throat of radioactive saliva. Throw the toothbrush away after this week. Remove dentures each time you do this.

At night, every 3 hours, for only 4 days:

1. Urinate
2. Suck candy or chew gum for 5 minutes
3. Brush your mouth
4. Repeat in 3 hours

Sleep alone for the next one week and also avoid any sexual activity or exchange of saliva in kissing. Not only partners but also children and pets must not sleep in/on your bed for a week.

Use stringent contraceptive measures for 12 months after treatment to avoid pregnancy.

If you have been breast-feeding a baby, **you must stop now**, before treatment, as the radioiodine can destroy the baby's thyroid. You may breast-feed the next baby you have.

For 7 days, including the day of treatment, you may hug each child for up to 10 minutes a day. (This is 80% more restrictive than NRC guidelines). Otherwise you may be in the same room with infants, children 17 and under, pregnant women and pets for the next seven days after your treatment but at least 3-feet away.

You have no restrictions in going out or being around adults (including meals) except for your partner/spouse for sleeping arrangements. For just the first 24 hours after treatment please sit 3 feet or more from anyone in a theatre, stadium, or any form of public transportation, and limit your time in the same public area, where you are 3 feet or less from the same person, to 2 hours.

After using the toilet, flush it twice for the next week. You don't need to use a separate toilet and your partner/spouse can still share the bathroom. Men should urinate sitting down. Wash your hands for 20 seconds with soap and water each time after you go to the toilet.

For spills of urine, saliva or mucus, pick this up with tissue and flush down the toilet, then wash your hands for 20 seconds.

You do not need to use separate plates and utensils or to wash anything (including clothes) separately.

Where you sit and what you touch or cook do not become in any way a hazard to you or your family, nor does perspiration.

Stay away from work for just the first day after treatment, unless you work alone or at a distance of over 6 feet from coworkers or children.

Do not travel in an automobile, plane or bus with others for times over one hour for the first 24 hours after treatment. Just during this time, if you are in a car, sit in the back right side of the car if you are a passenger, or have your passenger sit there if you are driving the car.

There is no risk of hair loss.

If you feel worse or develop a sore throat or mouth, neck pain, increased nervousness or shakiness, a rapid heartbeat, or fever, call your primary care physician and the Division of Nuclear Medicine at 513-584-9024.

If any questions arise regarding these instructions, please feel free to call us at 513-584-9024 and ask to discuss your concern with the staff doctor on duty. If after hours or on a holiday, call 513-584-7243 and ask the operator to page the Nuclear Medicine staff physician on call.

# Edward B. Silberstein, M.D.

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## University of Cincinnati Medical Center

Department of Nuclear Medicine  
234 Goodman Street  
Cincinnati, OH 45219-2316

### Outpatient Treatment with Iodine-131 for Thyroid Cancer

#### *Summary of Patient Instructions to Avoid Side Effects*

1. Take the antiemetic drugs you are given 2 hours before we treat you to reduce the chance of any mild stomach irritation or nausea, then every 12 hours for 5 days, including the day of treatment.
2. Eat and drink nothing (including candy and gum) for 2 hours after we treat you. Then resume the low iodine diet for 24 hours more and begin drinking 10 8-ounce glasses of fluid per day. Tomorrow you may have a normal diet for lunch and resume your thyroid hormone.
3. When you are awake for the next week, you must be sucking sugar-free candy or chewing gum at all times to avoid mouth ulcers, a permanently dry mouth or pain in your salivary glands.
4. Brush your tongue, inside of your cheeks and hard palate and wash your mouth out with water every 3 hours for a week. If you have dentures, remove them first.
5. For the first four nights set your alarm, if necessary, to awaken you every 3 hours to:  
1) urinate, 2) chew a stick of gum or suck on a hard candy for 5 minutes, and 3) brush out your mouth.
6. You must drink at least ten 8-ounce glasses of any liquid daily (but no milk for the first 24 hours) for the next week in order to wash the iodine out of your system.
7. Empty your bladder hourly for the next week when awake.
8. You must have at least one, preferably two, bowel movements a day for the next 7 days. Take whatever medication works for you as a laxative: 2 tablets of Dulcolax or Correctol or 2 tablespoons of Milk of Magnesia are recommended. Stool softeners will not work.
9. Please follow all the safety precautions on the Outpatient Safety Instructions sheet. If you have any questions, please call me at 584-9032.
10. Return in 4-7 days for a final scan (using today's iodine dosage). The technologist will give you a date and time. No special diet is needed. However, please bathe or shower the morning of this appointment and wear a clean set of clothing.

Edward B. Silberstein, M.D.  
513-584-9032



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CONSENT FOR THYROID CANCER  
WITH RADIOIODINE-131

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Patient name and medical record number must  
be complete here when faxed.

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PATIENT NAME: \_\_\_\_\_ of \_\_\_\_\_ (town) hereby states that my birth date is \_\_\_\_/\_\_\_\_/\_\_\_\_ and that I am currently \_\_\_\_\_ years old. Furthermore, I state that to the best of my knowledge I am of sound mind and am capable of making a decision regarding my treatment.

**(FOR WOMEN):** I further state that my last menstrual period began \_\_\_\_/\_\_\_\_/\_\_\_\_ and that to the best of my knowledge I am not pregnant. I have been told that the amount of radioiodine-131 which I will be given could result in **severe damage or death to an unborn child if I am now pregnant.** I have been told that I shall have a pregnancy test before treatment unless I am beyond childbearing age or have had a documented hysterectomy.

**(FOR NURSING WOMEN):** I have been told that **I cannot nurse a child** after radioiodine-131 treatment as the child's thyroid gland may be harmed. The child's thyroid gland could be exposed to radioiodine-131, have a cancer grow in it, or nodules from which a cancer could arise. The child's thyroid could become underactive along with a danger of mental retardation.

I authorize \_\_\_\_\_ (lead practitioner/surgeon performing the procedure) and the associates or assistants of his/her choice to treat the following condition(s) (pre procedure diagnosis):

\_\_\_\_\_

My physician/practitioner \_\_\_\_\_ has explained the procedure necessary to treat my condition as follows: **TREATMENT OF THYROID CANCER WITH RADIOIODINE-131 AND/OR ABLATION OF THYROID TISSUE LEFT AFTER SURGERY**

I have been told that the purpose of the radioiodine-131 treatment is to destroy any remaining thyroid tissue following surgery and/or thyroid cancer cells which take up radioiodine-131, and that this may require one or more treatments over a period of months to years. The doctor has also told me that, although there is evidence that some of the thyroid cells remaining in my body take up radioiodine-131, there is no guarantee that all of these cells will do so. I have been told that this means that there is a possibility that some of the thyroid cancer cells could remain in my body in spite of the radioiodine-131 treatment. If this proves to be the case on future examinations, additional therapy with radioiodine-131 and/or surgery and/or external x-ray therapy, and/or anti-cancer drugs may be required. Even then, I have been told that there is no guarantee that my thyroid cancer will be completely destroyed and will not reappear or progress in the future.

**It is also important that I follow written radiation safety instructions and I acknowledge that I have been given this information.**

**I have been told that the side effects of the radioiodine-131 therapy may include the following:**

1. An inflammation of excessive residual (left over) thyroid or thyroid cancer tissues which take up the radioiodine-131 may result in moderate to severe neck swelling and pain. Although it is quite rare, occasionally swelling (in my neck or elsewhere) could be severe enough to cause difficulties with speaking, swallowing, or breathing or other bodily functions which may require medical or surgical treatment. This would be caused by excessive thyroid tissue left after surgery.

**Attempt to reduce risk:** We check the amount of tissue left in the neck using a thyroid scan before treating.

2. The radiation dose to my testes (male) or ovaries (female) is such that if I am the parent of a fetus in the future, then I may have an increased chance of having an abnormal child. I also have been told that I may not be able to have children (if a man). No effect on female fertility has been found. I should not attempt to have a child for 6-12 months.

**STRINGENT PRECAUTIONS MUST BE TAKEN TO PREVENT PREGNANCY.**

**Attempt to reduce risk:** For women, a pregnancy test. For men, sperm storage.



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3. I could have low blood counts (which, if severe, could cause infection, bleeding, or rarely, death) in the first few months after treatment.

**Attempt to reduce risk:** For high dose radioiodine-131 therapy we measure the dose to your blood first and keep the amount of radioiodine-131 given below the level that might cause this risk.

I may experience nausea or vomiting.

**Attempt to reduce risk:** We will premedicate you with anti-vomiting medicines.

5. I have been told that I may experience pain and swelling of my salivary glands and/or a salty taste in my mouth, or loss of taste in the first 2 to 3 months after treatment. These are usually, but not always, reversible. A dry mouth may persist in 10-15% of patients and may be associated with serious tooth and gum problems as well as difficulty eating dry foods. Rarely, I may experience damage to my salivary glands and tear ducts that may require surgery.

**Attempt to reduce risk:** We recommend chewing gum and/or sucking hard candy consistently for the one week after your treatment to make your mouth "water," and thus wash out saliva.

6. The radioactive saliva sitting on my tongue and mouth can cause small ulcers.

**Attempt to reduce risk:** Brush both the top and bottom of your tongue, hard pallet and cheeks with a soft toothbrush every 3 hours when awake for one week, and every three hours for the first 3 nights. If you wear dentures, take them out first. Then wash out your mouth and spit out the water each time for one week.

7. If I have thyroid cancer in my lungs, radioiodine-131 treatment may result in temporary or permanent inflammation and scarring in my lungs that could interfere with my breathing or potentially lead to death (if I have over 120 mCi of radioiodine-131 in my body after 2 days or 80 mCi if I have tumor in my lungs).

**Attempt to reduce risk:** We will measure the radioiodine-131 in your lungs if you have cancer there and adjust the radioiodine-131 dose, if necessary.

8. The amount of radiation that my body will receive from the radioiodine-131 may increase slightly my chances of getting leukemia or a cancer of the bladder, intestines, or salivary glands over what they would be if I did not receive the radioiodine-131.

**Attempt to reduce risk:** We recommend hourly urination for one week, plus urination every three hours at night for the first 4 days, and having at least one bowel movement per day, to reduce radiation to the bladder and bowel.

9. There have been rare reports of dry eyes following radioiodine-131 therapy, or increased tearing due to a narrowed tear duct.

10. About 1 in 1000 times or less the small amount of neck tissue left after surgery could ache. You can take over the counter acetaminophen (Tylenol) per the bottle's instructions. Contact your family or treating nuclear medicine doctor if pain persists.

My physician has discussed appropriate alternatives and their associated benefits and risks. This includes the possible results from not receiving the recommended care, treatment, and services.

The likelihood of achieving the goals of this procedure is:  Poor  Fair  Good  Unknown due to:

I understand that physicians and other practitioners in addition to the lead practitioner/surgeon may be involved in my treatment, including Resident physicians and other trainees. They may perform such tasks only within their scope of practice and license, and as set forth in the privileges granted by the hospital. Residents may participate under the oversight of the Attending physician/surgeon, depending on their level of education and skills, and the patient's condition. The names of these individuals will be identified in the Nuclear Medicine record.



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Additional comments: \_\_\_\_\_

All information concerning this procedure and necessary for my informed consent, including alternative or no treatment has been disclosed to me. I have been told that there is no absolute guarantee of either a cure of my thyroid cancer or that I will not develop side effects, including other malignancies, in the future. Also, all my questions about the procedure, including the expected involvement of other practitioners and trainees, have been answered.

I acknowledge I am satisfied that I have been given sufficient information to make the decision to have the treatment with radioiodine-131.

I explained the risks, benefits and alternatives of this procedure, including the above, with the patient, or the patient's representative (Physician or other individual practitioner)

\_\_\_\_\_  
(Physician's/Credentialed Provider's Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Date and Time)

I give my permission and consent to the treatment or procedure specified above:

\_\_\_\_\_  
(Patient's Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Date and Time)

Patient is unable to consent, I therefore consent for this patient.

\_\_\_\_\_  
(Signature of Surrogate Decision-maker)

\_\_\_\_\_  
(Printed Name/Relationship)

\_\_\_\_\_  
(Date and Time)

\_\_\_\_\_  
(Signature of Witness if consent by telephone or otherwise not obtained at the time of the initial explanation)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Date and Time)

Check if telephone consent     Check if interpreter involved \_\_\_\_\_ (Name)