131-I-MIBG Treatment for Neuroblastoma

What is 131-I MIBG?

Metaiodobenzylguanidine (MIBG) is a treatment for neuroblastoma tumors. It is a type of radioactive iodine (131-I). The radioactive iodine is in a compound which is infused into the patient through an IV. It is a clear liquid that looks like water.

What to Expect Before Your Child Receives 131-I MIBG

Parents who are thinking about MIBG treatment will be asked to provide us with recent scans, lab work, etc, so we can decide if the treatment will be right for your child. You will have a clinic visit at AFCH Pediatric Hematology/Oncology Clinic, where you will meet our MIBG doctor, nurse practitioner, and other members of the team. We will discuss the treatment with you in detail. We will assess your child to decide if the treatment will help.

You will be asked to bring as little with you as you can. Do not bring any special toys or clothes. If they become contaminated with radioactive body fluids, they would need to be thrown away. We cannot return contaminated items to you. It is suggested that you bring disposable toys, etc for your child to play with during the treatment.

What to Expect When Your Child Receives 131-I MIBG

A week or 2 before
• Scans and other records will be sent to (or performed by) AFCH.
• Your child will have a clinic visit at AFCH.
• You will have a chance to ask questions.

The day before 131-I MIBG treatment
• Your child will be admitted to AFCH into our special MIBG room on P4.
• Your child will meet with a Child Life therapist to discuss a plan for distraction and comfort while having the treatment.

The day of the MIBG treatment

Your child will be sedated. A Foley catheter will be placed to drain the urine from the bladder. A small amount of the radioactivity is absorbed by the tumor. Most of the radiation is eliminated via the urine. The Foley helps to decrease exposure of the healthy tissues, especially the bladder,
to the radiation. Once the MIBG treatment has started, the urine will be pumped into the toilet with a special pump.

An IV pump will be hooked up to your child’s IV line. IV fluids will be started.

Your child’s room will be prepared by the Radiation Safety staff. They will cover many of the surfaces in the room, so that they do not become contaminated with radioactive fluids.

When the 131-I MIBG is ready, the radiation pharmacist will bring the dose to your child’s room in a syringe. The syringe, and the pump that will infuse it, will be brought in on a cart, with a lead shield around it.

**After the MIBG Infusion is Finished**

You may care for your child and help him with taking medicines, eating, and other activities. Most of your time should be spent in the parent room, attached to your child’s room, or behind the lead shield in his room. There is a video set up so that you can see and talk to him even when you are in the parent room.

Your child may play video games, watch TV or play with toys, but must stay in or near the bed until cleared by radiation safety. Your child will not be able to leave the room until his radiation level is below the level that is safe. Young children may find staying in bed hard, and the MIBG team can discuss with you the option of using medicines to help the child relax.

You will be asked to

- Not eat or drink while in the child’s room.
- Wear the protective clothing.
- Remove the protective clothing when leaving the room.
- Follow other radiation safety precautions.
- Wear a dosimeter to track your radiation exposure.
- Do not use the toilet or shower in the room.
- Only one parent is allowed in the room at a time, except for brief amounts of time.

**Guidelines for Home Care after Treatment**

The radioactive iodine used to treat your child does not evaporate into the air, so there is no risk of breathing in the radioactivity.

During the first eight hours, about 20-25% will be excreted. Within twenty-four hours, 23-57% will be excreted.

The greater the distance you are away from the MIBG treated patient, the less radioactive exposure you will have. By doubling your distance from the patient, you will reduce your radiation exposure to a quarter of the original amount.
After Going Home
1. Keep giving your child potassium iodide (SSKI) and Potassium perchlorate until the stop date.

2. Flush the toilet twice after your child urinated for the next 7 days.

3. Use disposable diapers. Be sure to place them in an outdoor garbage can at least once a day.

4. Use disposable gloves while changing diapers.

5. Wash your hands carefully with soap and water after changing diapers or handling urine, vomit or stool even though you wore gloves.


7. Avoid close contact (closer than arm’s length) for longer than fifteen minutes per day for the first week after treatment. Do not nap with or hold your child on your lap if you can.

8. Your child may not hold a baby for one month after the treatment, to prevent undue radiation exposure to the baby.

Information for Medical Providers

Patient Name __________________

Date of MIBG treatment___________

Date of discharge after MIBG treatment _____________

NOTE: This patient has been released according to the regulatory requirements under Wisconsin Department of Health Services, DHS 157.62(8). Instructions have been provided to the patient and his/her caregivers on how to keep public radiation exposure from the patient as low as reasonably achievable, i.e. maintain a prudent distance (~1-meter) and minimal time. This patient may have trace amounts of radioactivity in the body fluids. Standard Precautions when handling blood or body fluids are required. Contact your institutional Radiation Safety Department should clinical samples be needed or if patient is admitted within one week of discharge date above.

American Family Children's Hospital Pediatric Oncology Office (608) 263-6200
UW Hospital Radiation Health Physicist (608) 890-6485

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright ©2015. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7047.