



## **MIBG treatment**

Your child will receive treatment with radioactive iodine.

### **How long does the examination take?**

Radioactive iodine destroys tumor cells. By attaching the radioactive iodine to a protein (MIBG), we make sure it reaches the tumor and does its job there. Your child will be hospitalized for five to seven days for this treatment. As your child gives off radiation to the environment (people and things) for some time during and after treatment, they are nursed in isolation. During the hospitalization, you can always see and talk to each other via equipment and you look after your child yourself.

### **Beforehand**

- Some time before admission, you will have a lengthy talk with a nurse, radiation expert, and nuclear medicine specialist.
- You may take a look at your child's room and your room across from your child's.
- You can then also see how the equipment works to interact during the hospitalization.
- Please note that your child's clothes and toys must not be taken home immediately afterwards.
- You will be given medication to protect the thyroid gland to take home with an administration schedule.

### **The treatment**

On **day 1** your child will be admitted. You can then get used to the new environment and equipment. If your child has a laptop or tablet at

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with them, we will wrap it in cling film. After hospitalization, you can simply take it home with you.

On **day 2** the actual treatment will be performed. Your child will first have a light breakfast. Blood will be drawn from the VIT or line and your child may be given a relaxing medication. You will then go to your own room and the radioactive iodine will be administered via the VIT or line in 1 to 2.5 hours maximum. Some of the radioactive iodine will be retained in the body, particularly in the tumor and any metastases. The rest will leave the body in the urine, feces and sweat. Your child will be given plenty of fluids (self-drinking or via nasogastric tube) for the first 24 hours to speed this up. Your child's pediatric oncologist, along with nuclear medicine physicians, is responsible for treatment. A ward-duty physician visits every day. For the days following the administration, the nurse will measure every morning how much radiation your child is emitting. Your child may receive chemotherapy ON those days according to the treatment schedule. A scan is taken two or three days after the radioactive iodine has been administered. This takes about 45 minutes.

## Care

You may look after your child yourself, except if you are pregnant. The nurse will explain everything to you the first time. It is advisable to have two people involved besides the parents. Minimize your own exposure to radiation and only enter the room when your child needs you. In the lock, put on an overcoat, gloves and slippers. Your child's urine is radioactive. Diapers are therefore collected in a special waste bin and if your child is potty trained, they should always sit down on the toilet to urinate. Try to stay in the room as briefly as possible and keep as much distance from your child as possible. When you leave the room, please put the slippers and gloves in the garbage can in the lock and hang the overcoat on a hook. Each caregiver is given a radiation meter that measures how much radiation you have received. There is no legal limit for

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this, but the less the better.

### **Visitors**

In consultation with the nurse, adults (not pregnant) may visit (i.e. no children). They may take over some of the care.

### **Afterward**

If the radiation emitted by your child is below the legal limit, you should be allowed to go home. You will be given a regimen to take home. Clothing and toys can also absorb radioactivity and are not allowed to be taken home immediately. You must have them stored in the department until they are no longer radioactive. This may take up to three months.

### **Questions**

If you have any questions about this treatment, please feel free to contact the UMCU Radiology Desk: 088-755 88 18.

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