

## Welcome to the pediatric radiation oncology department at Inova Schar Cancer Institute.

A skilled interdisciplinary team of radiation oncologists, radiation therapists, medical physicists, dosimetrists, nurses and a child life specialist will be supporting you and your child throughout the therapy process. Inova's Life with Cancer<sup>®</sup> pediatric program also provides support services to help manage the challenges of cancer in your family. We want the experience to be as positive as possible. As a parent, you are an important part of the team, so please share any information that you think will help us best support your child's needs. Below you will find some helpful information about the radiation oncology consultation and treatment process.



### Radiation Therapy

- **Radiation therapy** is the careful use of high-energy X-rays, protons, electrons or other sources of radiation to treat diseases, like cancer. Radiation therapy works by damaging the genetic material within cancer cells as a treatment to try to prevent them from growing, replicating and spreading. When these damaged cells die, the body naturally removes them.
- **Radiation therapy palliation** is radiation therapy that is used to reduce the symptoms caused by growing tumors to improve quality of life. Radiation therapy palliation may be used to relieve pain by reducing the size of the tumor or shrink tumors that harm quality of life.



## You child's journey is a multistep process.

### Consultation

After being referred to the radiation oncology department, you will meet with the radiation oncologist in charge of planning your child's treatment. In this meeting, you will discuss details of the radiation therapy process, including the risks, benefits and possible side effects. Here, you will also discuss whether your child may need anesthesia for the sessions.

The radiation oncologist will plan the treatment in conjunction with your child's protocol and may need to be very specific with start days if your child is enrolled in a clinical study. If your child is admitted to the inpatient unit and a referral is made, this consultation may take place on the inpatient unit. If your child is not admitted, the consultation will take place in the radiation oncology department as an outpatient. You will meet the child life specialist during the consultation appointment or by phone before or after the consultation.



### Simulation

After your consultation, the next step is radiation simulation. It is important for your child to hold still and remain in the same position each day during treatment. For simulation, your child will have a CT scan (sometimes called a CAT scan), which serves as the baseline scan on which radiation is planned. If treatment involves the brain, head and neck, or upper chest, a special mask (immobilization mask) will be made to help with positioning for daily treatments.

Depending on the area of treatment, the radiation therapist may need to place purple markings on your child's body with semipermanent marker (Sharpie) to ensure correct positioning for the first treatment. These markings will be covered with a special clear tape

(called Tegaderm™), to preserve the markings and will be removed during the first treatment. When bathing, the water can run over your Tegaderm marks, but avoid scrubbing or applying lotions or cream to the area. If your child is very young, has difficulty staying still or is anxious, anesthesia may be ordered to complete the simulation successfully. If your child can complete the simulation without anesthesia, a child life specialist may be available to provide preparation and support during the process.

### Treatments

Children will not feel the radiation treatment but may hear the machine make a slight humming or buzzing noise during sessions. The treatments last 5 to 45 minutes, depending on what part of the body is being treated. It is very important that your child holds still for the whole treatment. Parents are always welcome to help their child get into proper position for their treatment, but everyone must exit the treatment room before the treatment begins.

If your child will not be receiving anesthesia and needs continued support to cope, the child life specialist may remain present in the machine control area to speak to the child over an intercom. This will be determined on a case-by-case basis. If your child will be getting anesthesia, parents are typically present as anesthesia is given. Then, they will wait in the waiting area. Parents will reunite with their child when the treatment is finished and the child is waking up.

Anesthesia is typically given through a central line. If your child has a Mediport®, you may have the option of leaving the Mediport accessed all week instead of having to access and deaccess every day. This is something that you will need to discuss with the team.

The number of treatments your child will be getting will determine the number of times you meet with your radiation oncologist. During these meetings, the physician will examine your child and answer any of your questions. If you are not scheduled to meet with your child's physician but you have a question or concern, please speak to one of the nurses. They will address your needs or ask the physician to see or call you.



### Prepare Your Child

Children benefit from age-appropriate preparation for procedures. This gives children a sense of control and lets them know what to expect. For very young children, you will want to prepare them just before the procedure. School-age children can be prepared about a week before procedures, allowing them to plan a coping strategy and practice that strategy, if needed. Adolescents can be prepared several weeks before procedures and should be involved in all parts of the process, to encourage independence and provide chances to ask specific questions. You may schedule a practice-session tour of the treatment area for your child with the child life specialist.



### Practice at Home

Have your child lie still on the floor or bed, refraining from talking, while you, the parent, leave the room for a designated amount of time. For younger children, you will want to begin with very short periods of time and then extend them as the child becomes more comfortable and compliant. This exercise can be done with any age child ahead of time or throughout the treatment.

### Develop a Coping Plan

Children of all ages can benefit from a coping plan to help decrease their anxiety. Coping plans can include listening to music or a book on CD, having a familiar voice talk the child through the treatment, deep breathing and guided imagery exercises, or having a favorite item to hold or lay on a part of the child's body not involved with treatment. A child life specialist can help create a customized coping plan for your child before and during treatment.

### Be Encouraging

Radiation therapy can be very stressful for not only the patients, but the parents, too. Children feed off their parents' anxiety, especially in new situations. Please validate your child's feelings, but try to remain as positive as possible throughout the experience to promote positive coping. Reassure them that the physicians and therapists who will be working with them are highly trained to keep them safe and comfortable.

## Reminders

### One Parent

Due to space limitations and need for the therapists' precision and concentration, one parent may be allowed to remain present in the treatment machine control area if the child is in need of continued support. It is very important that the parent stay in the location designated by the therapists in the control area in order for support and treatments to be successful.

### HIPAA

There will be other patients and patient information in the treatment areas. Please respect patient privacy at all times.

### No Videos or Pictures

Please do not take video or still pictures of the treatment control area. This can serve as a distraction for the therapists during the treatment session. If you would like to take a picture of your child in the treatment room or with the treatment team, just ask.

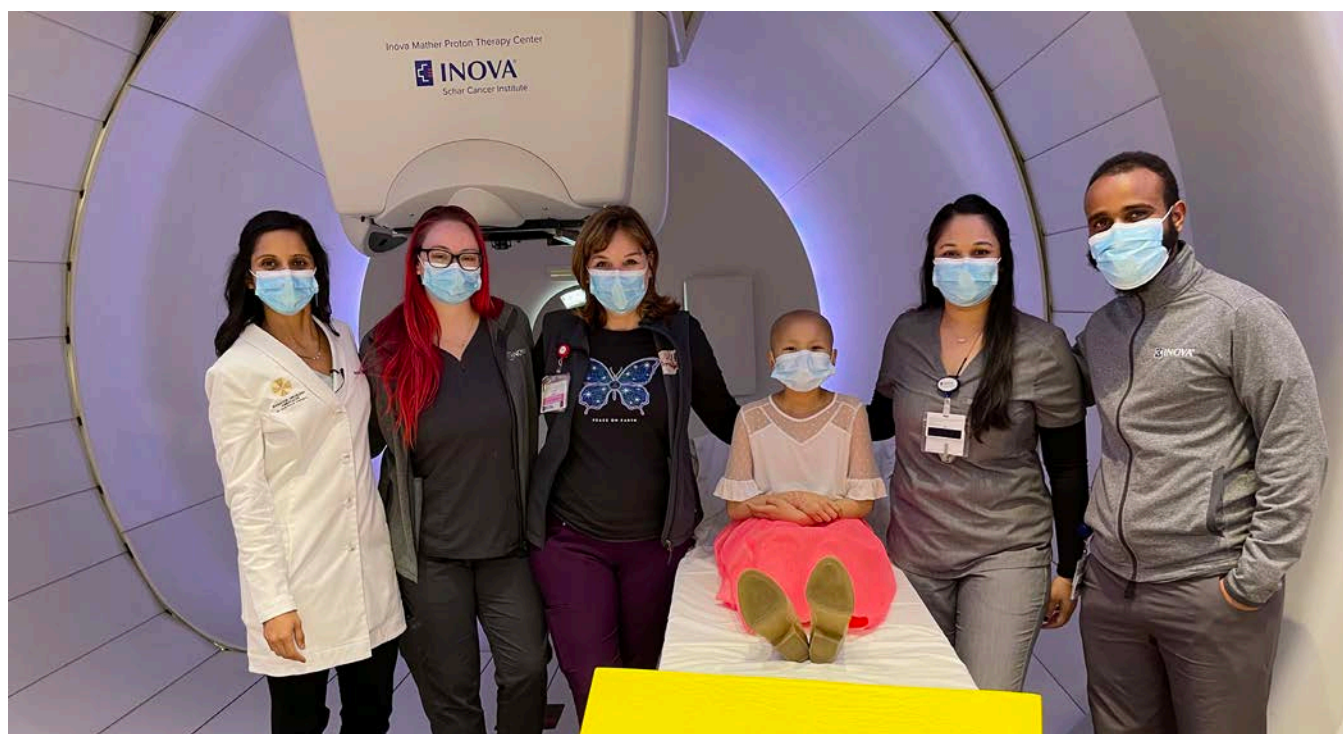
### Anesthesia Cases

Some children will need anesthesia for their radiation treatments due to age or anxiety. Anesthesia cases are typically scheduled for first thing in the morning due to the recovery time after treatment. Parents may provide support and comfort while anesthesia is first given in the treatment room and will then be asked to stay in the waiting area until the session is finished. Parents will rejoin their child as their child is waking up.



## Care Team

- **Radiation oncologists** are the doctors who oversee the care of each person receiving radiation therapy. They specialize in the treatment of cancer using radiation from both external and internal approaches. This doctor will not be present for each session but will meet with you and your child throughout the treatment process.
- **Medical physicists and dosimetrists** are experts trained in planning out your child's treatment dosing with the radiation oncologist. These experts work behind the scenes to build the radiation therapy treatment plans for your child with oversight from the radiation oncologist. They are also involved in making sure appropriate quality assurance steps are taken both before and during treatment.
- **Radiation therapists** are specialists who prepare patients for each treatment, operate the radiation equipment and deliver the radiation therapy to the patient. You will see the radiation therapists at each treatment session.
- **Radiation oncology nurses** work as a team to coordinate patient care and treatment, provide education, coordinate follow-ups, and manage symptoms and side effects.
- **Certified child life specialists** are clinically trained in the developmental impact of illness and injury and specialize in helping families cope in the medical setting.



Throughout your child's radiation treatment plan, you will continue to follow up with your child's oncologist for regularly scheduled appointments or chemotherapy infusions and admissions. The radiation oncology team will provide you with a schedule and will be working together with your child's primary oncologist to determine the best plan and care for your child.

*Thank you for letting us care for your child throughout this treatment.*