

# Home monitoring for your child

For patients in Pediatric Hematology and Oncology

## A- MAIN SIDE EFFECTS OF CHEMOTHERAPY

Chemotherapy affects rapidly-dividing cells, among which include : the diseased cells but also blood and mucosal cells. It may produce the following side effects:

### 1- APLASIA

Aplasia refers to the decrease in blood cells (white blood cells, red blood cells, platelets) 7 to 12 days after the first day (D1) of treatment. Blood tests are, therefore, important in order to monitor its development and course (blood work-ups once or twice a week).

- **WHITE BLOOD CELLS (= LEUCOCYTES)**

In the white blood cell family, neutrophils (PNNs) are among the most useful in the fight against bacterial infections. A PNN count less than 500/mm<sup>3</sup> reveals neutropenia and a high risk of infection.

Aplasia does not always require hospitalization ; however, fever associated with neutropenia (PNN count less than 500/mm<sup>3</sup>) is considered a therapeutic emergency, requiring immediate hospitalization of your child so that antibiotic perfusions may be administered.

Before leaving, call the department, apply EMLA® numbing cream on the implantable port, and take the RIFHOP medical care binder with you.

#### → TEMPERATURE MONITORING

When the PNN count drops below 500/mm<sup>3</sup>, it is advisable to check the temperature twice a day. To do so, place an electronic thermometer under the armpit. To obtain the equivalent of the body temperature, add 0.5°C to the reading. Do not take a rectal temperature, or you run the risk of causing an anal fissure or bleeding.

#### → CALL THE HOSPITAL IF :

- the temperature falls between 38 and 38.5°C twice within the span of an hour (without administration of Paracetamol between the two readings)
- the first temperature reading is greater than or equal to 38.5°C
- the temperature is less than 36°C
- your child has the chills or is shivering

Be sure to tell the physician if the temperature was taken while your child was on corticosteroids.

- **RED BLOOD CELLS (= ERYTHROCYTES)**

They carry oxygen throughout the body using hemoglobin. Should the hemoglobin level be less than 7-8 g/dl, this reveals anemia (paleness, fatigue, shortness of breath, rapid heartbeat), and most often requires a red blood cell transfusion.

- **PLATELETS (= THROMBOCYTES)**

They help the blood to clot, and form scabs on wounds. Should the number of platelets be less than 20,000/mm<sup>3</sup> (or 50,000/mm<sup>3</sup> depending on the pathology), this reveals thrombopenia (appearing in the form of bruises, small, red marks on the skin, bleeding), often requiring a platelet transfusion.

→ **TRANSFUSIONS** are generally done on the central venous catheter in the Outpatient clinic of the local hospital.

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## 2- MUCOSITIS

This refers to a breakdown of the mucous membranes lining the gastro-intestinal tract (which goes from the mouth to the anus). Signs of its presence include: redder mouth, teeth marks on the tongue or “scalloped tongue”, swollen gums, oral thrush, canker sores, hypersalivation followed by dry mouth, trouble eating or swallowing one’s saliva, and redness or cracking around the anus (pruritis ani or anal itching).

Increase the frequency of mouthwashes (refer to Mouthwash sheet). Significant cases of mucositis may be very painful, requiring a special diet and morphine-type pain medication.

## 3- OTHER POSSIBLE SYMPTOMS

Constipation or diarrhea, nausea and vomiting, pain, skin rashes and all other signs triggering concern.

→ **IN THE EVENT OF THESE SYMPTOMS**, you should call the physician at your local hospital or specialized treatment site immediately. The phone numbers of the Pediatrics department, as well as of the daytime and nighttime care units, may be found on the first few pages of the RIFHOP medical care binder.

→ **VOMITING** : Be sure to obtain the medication needed for your child prior to discharge, and administer it regularly as indicated on the discharge prescription. Vomiting is easier to prevent than treat once started.

## B- CENTRAL LINE PLACEMENT

### 1- WEEK ONE (W1)-MONITORING

- Moderate pain and bruising where the catheter is placed and in the arm are considered normal reactions in the first few days following installation: administer medication as prescribed.
- Stitches or skin glue: Stitches normally dissolve after three (3) weeks, but may be removed by a nurse in case of inflammation. Skin glue falls off by itself after 10 days or so.

### 2- DAILY MONITORING

- For implantable ports : a shower may be taken as soon as the scar has closed up entirely.
- For central venous catheters : do not humidify the dressing. Ensure that it sticks well and the skin is not damaged. On the contrary, have a nurse redo it.
- The central line placement may be infected should one of the following signs appear : fever, redness, localized swelling, hotness, localized pain and in the arm, itching, pus or odor. Inform your physician immediately.
- Scab formation is not unusual.

### 3- PRECAUTIONS

- Washing hands is mandatory prior to handling the catheter (washing, changing, dressing prep). This is valid for the child, his/her family and healthcare professionals.
- Before drawing blood from an implantable port, apply an EMLA®-type numbing cream (cream or patch) 1 to 2 hours prior to inserting the needle.