#### **Post Procedure Instructions**

After the procedure, you may feel tired, which is normal. You may also experience low blood pressure problems and feel dizzy, lightheaded, nauseous, cold, or sweaty.

A reaction to transfused blood products may occur up to several hours or days after the transfusion. It is extremely important that you report to your doctor any unusual feelings that you may experience during that time.

Signs and symptoms that may indicate a reaction to transfused blood products are as follows:

- Itching, rash, hives
- Chills
- Fever of 100.5 F or greater
- Nausea or vomiting
- Headache, chest pain, or back pain
- Difficulty breathing
- Red or dark colored urine

Contact your doctor if any of the above occurs. If you are unable to contact your doctor, you may call 410-955-4331 to speak with the HATS On-Call Physician.



## **HATS Apheresis Program**

If you have any other questions about the apheresis procedure, side effects, or expected outcomes, please call 410-955-1717

If you have any questions concerning scheduling your appointments or billing issues, please call 410-955-6347.

This information was created by Nurses Lala, Leonie, Maria O, and Sonja of the HATS Dept.

To schedule an appointment for an exchange transfusion, please call the HATS Scheduler at 410-955-6347.

No appointment is needed to have samples drawn at Express Testing. Days/Hours: Monday – Friday 7AM to 5:45PM

Phone: 410-955-1682



## Hemapheresis and Transfusion Support

Johns Hopkins Hospital 1800 Orleans Street Park Building- 150 Baltimore, MD 21287

Email: HATSGeneralInquiry@jhmi.edu TAP-20.1 Effective 10/31/2022

# Red Blood Cell Exchange

### PATIENT EDUCATION



HATS Apheresis Program at The Johns Hopkins Hospital





## A Patient's Guide to Red Blood Cell Exchange (RBCX)

#### What is RBCX?

Red Blood Cell Exchange, also called RBCX or Transfusion Exchange, is a medical procedure that removes abnormal red blood cells and replaces them with healthy red blood cells provided from blood donors. The blood is removed through needles placed in your arms (1 line removing the blood and the 2nd line replacing the blood simultaneously) or through an intravenous catheter (port, AV Fistula or AV Graft). The blood then circulates through the machine where it is separated into each of its components (red cells, white cells, platelets, and plasma). The separated red blood cells are collected and discarded. The remaining blood are mixed with healthy red blood cells and returned to you.

#### Why do I need RBCX?

Red Blood Cell Exchange is mainly used to treat complications of sickle cell disease. Red blood cells that are abnormal in shape, size, or function and prevent oxygen from reaching the body's tissues. Lack of oxygen causes damage to cells and organs and may result in pain, anemia, stroke or kidney failure.

#### Before Your RBCX Procedure

Samples: It is your responsibility, 1-3 days before your appointment, to have blood work drawn at a JHH lab. This requires your doctor to have written an order for a Type and Screen (pink top), and a Complete Blood Count (purple top). We cannot prepare your units of blood without a pink top. It can take from 4 hours up to 3 days to have compatible blood ready for you. If these labs are not drawn, your procedure may be canceled.

#### What happens During a RBCX Procedure?

**Step 1:** For the procedure, your venous access will be assessed by an Apheresis RN. Patients with adequate veins will have needles placed in each arm. Patients with unsuitable veins will have an central venous catheter placed before the procedure or use their implanted port.

**Step 2:** Once access is established, the Apheresis RN will connect you to the apheresis machine. The apheresis machine draws your blood into a cell separator centrifuge that will separate the red blood cells from the whole blood. The separated red blood cells are then removed and collected into a waste bag.

**Step 3:** Healthy donor red blood cells are added to your remaining blood components in the machine and mixed. The new whole blood is then returned to you.

**Step 4:** The procedure typically lasts 2-3 hours. During the procedure, you can take a nap, read, eat, listen to music, watch TV or use your mobile device/ tablet.

#### Potential Risks and Side Effects?

RBCX is a safe procedure, but some side effects may occur. You may have discomfort at the needle site, fatigue, dizziness, lightheadedness, nausea, vomiting, rash or hives, headache, chills, itching, numbness/tingling sensation, or difficulty breathing. It is important to notify the nurse immediately if you start to experience any of these symptoms.

#### How Can You Prepare for Your Procedure?

- 1. Bring a complete list of your medications including the drug names, dosages, and the times you take them. Please take your medications as usual on the morning of your transfusion appointment unless you were told not to. You may be told not to take certain blood pressure medications, like Lisinopril. Check with your doctor. If you take pain medications as needed, please bring them with you. You will also need your insurance information and a photo ID.
- A few days before your appointment, and especially the night before, drink plenty of fluid. It is also recommended you eat a meal prior to your appointment. Those hydrated and nourished tolerate the procedure better. Feel free to bring snacks and/or lunch depending on the length of your appointment
- You may feel tired or fatigued after the procedure. If you are an outpatient, it is recommended you have someone drive you home.
- 4. On the day of your procedure, wear loose fitting and comfortable clothing.

#### After Your RBCX Procedure?

- 1. Continue to hydrate for at least 24 hours.
- 2. Eat a hearty lunch and dinner.
- 3. Minimize physical activity for several hours after the procedure.
- Monitor your access sites for signs of bleeding. Refer to your After Visit Summary (discharge instructions).

