



Provincial Health Services Authority

## For the Patient: LYDHAPR

Other names: Treatment of Lymphoma with Dexamethasone, Cytarabine, Platinum and Rituximab

**LY** = LYmphoma

**D** = Dexamethasone

**HA** = High-dose cytarabine (also known as **ARA-C**)

**P** = cisPlatin or carboPlatin

**R** = Rituximab

### **ABOUT THIS TREATMENT**

#### **What is this treatment used for?**

- Dexamethasone, cytarabine, cisplatin or carboplatin, and rituximab are drugs given for non-Hodgkin lymphoma with the expectation of destroying cancer cells.
- This treatment is currently offered to patients with aggressive (fast-growing) non-Hodgkin lymphoma.

#### **How do these drugs work?**

- Dexamethasone (dex-a-METH-a-son) is a steroid that helps kill lymphoma cells.
- Cytarabine (sy-TARE-a-been), cisplatin (sis-PLAT-in) and carboplatin (KAR-boe-plat-in) work by interfering with the genetic material of replicating cells and preventing an increase in the number of cancer cells.
- Rituximab (ri tux' i mab) is a monoclonal antibody, a type of protein designed to target and interfere with the growth of cancer cells.

### **INTENDED BENEFITS**

- This therapy is being given to destroy and/or limit the growth of cancer cells in your body. This treatment may improve your current symptoms, and delay the onset of new symptoms.

### **TREATMENT SUMMARY**

#### **How are these drugs given?**

- Cytarabine and cisplatin or carboplatin will be given directly into the vein, intravenously (IV). Rituximab can be given IV or injected under the skin (subcutaneously or SC). Dexamethasone is taken by mouth.
- The treatment will be given in 'cycles'. Each cycle length is 3 weeks.
- You will receive treatment for 3 days each cycle, on Days 1 to 3. The treatment will last about 3 to 8 hours each day.
  - You may also receive treatment on Day 8, dependent on lab result.
- You will take the oral medication, dexamethasone, daily with food for the first four days of each cycle (Days 1 to 4).

## What will happen when I get my drugs?

- You will see your clinician and will need to have a blood test before each treatment
- The dose and timing of your treatment may be changed based on your blood counts and/or other side effects.
- Your clinician will be assessing whether your cancer is improving with each treatment.
- Your very first treatment will take longer than other treatments because a nurse will be reviewing the possible side effects of your treatment plan and will discuss with you how to manage them. *It is a good idea to bring someone with you to your first chemotherapy appointment.*
- You will be given a prescription for anti-nausea medications (to be filled at your regular pharmacy). Please bring your anti-nausea medications with you for each treatment. Your nurse will tell you when to take the anti-nausea medication.
- You may also need to take your anti-nausea drugs at home after therapy. It is easier to prevent nausea than to treat it once it has occurred, so follow directions closely
- Please also purchase acetaminophen 325 mg and diphenhydramine 25 mg; you will need these prior to rituximab.
- During the rituximab infusion, the nurse may monitor your heart rate, breathing and blood pressure at frequent intervals.
- You will need to take dexamethasone eye drops to decrease your chance of developing eye problems from the cytarabine. You will be given a prescription to be filled at your regular pharmacy. It is very important that you bring the eye drops with you to your treatments. The first dose will be given prior to starting cytarabine and you will continue to take these eye drops every 6 hours until 48 hours after your last cytarabine dose. Your nurse will assist with instructions for using eye drops. It may be helpful to set an alarm so that you do not miss a dose.

## **INSTRUCTIONS**

- Other drugs such as some antibiotics given by vein (eg: tobramycin, vancomycin), furosemide (LASIX®), phenytoin (DILANTIN®), pyridoxine (Vitamin B6), digoxin (LANOXIN®) and blood pressure medications may interact with your treatment. Check with your doctor or pharmacist before you start taking any new drugs.
- **We may ask you to skip your blood pressure medication 12 hours before and during rituximab treatment.**
- **Drink** 8-12 cups of liquid a day on the day of your treatment and the day after your treatment. This helps prevent kidney problems.
- You may drink small amounts of alcohol, as it will not affect the safety or effectiveness of your treatment. Drinking alcohol may increase the risk of some side effects of dexamethasone; discuss this with your doctor or pharmacist.
- Tell other doctors or dentists that you are being treated with LYDHAPR chemotherapy before you receive any treatment from them.
- **Tell** doctors, nurses, and pharmacists that you are being treated with rituximab subcutaneous injection before you receive other subcutaneous injections. Other medications should not be injected into the same injection site as rituximab if possible.

- Use effective contraception (birth control) if you could become pregnant or if your partner could become pregnant. Becoming pregnant while on chemotherapy will likely harm the baby. Do not breast feed.

## **CHEMOTHERAPY SIDE EFFECTS AND MANAGEMENT**

### **Are there any risks?**

Unexpected and unlikely side effects can occur with any drug treatment. The ones listed below are particularly important for you to be aware of.

### Changes in blood counts

Your treatment may cause temporary changes in your blood counts. Your doctor will be following these changes carefully by ordering regular blood tests. Adjustment of your treatment may be needed in certain circumstances.

<b>BLOOD COUNTS</b>	<b>MANAGEMENT</b>
<p>Normal white blood cells protect your body by fighting bacteria (germs) that cause infection. <b>When they are low, you are at greater risk of having an infection.</b></p>	<p>To help prevent infection:</p> <ul style="list-style-type: none"> <li>• Wash your hands often and always after using the bathroom.</li> <li>• Avoid crowds and people who are sick.</li> <li>• Call your healthcare team <b>immediately</b> at the first sign of an infection such as fever (over 38°C or 100°F by an oral thermometer), chills, cough, or burning when you pass urine.</li> </ul>
<p>Normal platelets help your blood to clot normally after an injury (e.g., cut). <b>When the platelet count is low, you may be more likely to bruise or bleed.</b></p>	<p>To help prevent bleeding problems:</p> <ul style="list-style-type: none"> <li>• Try not to bruise, cut, or burn yourself.</li> <li>• Clean your nose by blowing gently. Do not pick your nose.</li> <li>• Avoid constipation.</li> <li>• Brush your teeth gently with a soft toothbrush as your gums may bleed more easily.</li> </ul> <p>Some medications such as ASA (e.g., ASPIRIN®) or ibuprofen (e.g., ADVIL®) may increase your risk of bleeding.</p> <ul style="list-style-type: none"> <li>• Do not stop taking any medication that has been prescribed by your doctor (e.g., <b>ASA for your heart</b>), but do discuss this with your doctor.</li> <li>• For minor pain, try acetaminophen (e.g., TYLENOL®) first, but occasional use of ibuprofen (eg, ADVIL®, MOTRIN®) may be acceptable. Take your temperature prior to taking acetaminophen-containing products.</li> </ul>

SIDE EFFECTS	MANAGEMENT
<p><b>Fevers and chills</b> may occur especially during the first rituximab treatment.</p>	<ul style="list-style-type: none"> <li>You will take acetaminophen (eg, TYLENOL®) and diphenhydramine (eg, BENADRYL®) before and every 4 hours during your rituximab treatment. <b>Tell your nurse immediately if you have a reaction during treatment.</b></li> </ul>
<p><b>Fever</b> may commonly occur shortly after treatment with cytarabine. Fever should last no longer than 24 hours.</p>	<ul style="list-style-type: none"> <li>Take acetaminophen (e.g., TYLENOL®) every 4-6 hours, to a maximum of 4 g (4000 mg) per day.</li> <li>Fever (over 38°C or 100°F by an oral thermometer) which occurs more than a few days after treatment may be a sign of an infection. Report this to your healthcare team <b>immediately</b>.</li> </ul>
<p><b>Eye or vision problems</b> (such as red or watery eyes, sensitivity to light, eye pain, or blurry vision) sometimes occur with cytarabine.</p>	<ul style="list-style-type: none"> <li>You may be given a prescription for eye drops to prevent eye problems before they occur. It is important to follow the directions closely.</li> <li>Tell your healthcare team if you have eye problems. If you have eye pain or changes in your vision, report this to your healthcare team <b>immediately</b>.</li> </ul>
<p><b>Allergic reactions</b> commonly occur with rituximab. Signs of an allergic reaction may include flushing, rash, hives, itching, dizziness, swelling or breathing problems. These reactions can occur immediately after receiving rituximab. Reactions usually only occur with the first or second treatment.</p> <p><b>Allergic reactions</b> may <b>rarely</b> occur with cisplatin and carboplatin. This reaction occur immediately or several hours after receiving treatment. This reaction can occur after the first dose or after many doses of cisplatin or carboplatin.</p>	<p>Tell your nurse if this happens while you are receiving rituximab or contact your oncologist immediately if this happens after you leave the clinic.</p>
<p>Cisplatin <b>burns</b> if it leaks under the skin.</p>	<p>Tell your nurse <b>immediately</b> if you feel pain, burning, stinging, or any other change while the drug is being given.</p>

SIDE EFFECTS	MANAGEMENT
<p><b>Pain or tenderness</b> may occur where the needle was placed.</p>	<ul style="list-style-type: none"> <li>• Apply cool compresses or soak in cool water for 15-20 minutes several times a day.</li> </ul>
<p><b>Redness, swelling, pain, or tenderness</b> commonly occurs where the needle was placed when rituximab is injected under the skin.</p> <p>These reactions typically occur within 1-2 days and usually disappear on their own. Reactions are less common with later treatments even if you have a reaction with the first treatment.</p>	<ul style="list-style-type: none"> <li>• Apply cool compresses for 15-20 minutes several times a day after the injection.</li> <li>• Tell your doctor or your nurse at the next visit if these reactions are very painful or last longer than 2 days.</li> </ul>
<p><b>Nausea and vomiting</b> may occur after your treatment and may last for 48 hours. Nausea may last longer for some patients (i.e. delayed nausea and vomiting). If you are vomiting and it is not controlled, you can quickly become dehydrated.</p>	<p>You may be given a prescription for anti-nausea drug(s) to take before your treatment and/or at home. <b>It is easier to prevent nausea than treat it once it has occurred</b>, so follow directions closely.</p> <ul style="list-style-type: none"> <li>• Drink plenty of fluids.</li> <li>• Eat and drink often in small amounts.</li> <li>• Try the ideas in <i>Practical Tips to Manage Nausea</i>.*</li> </ul> <p>Tell your healthcare team if nausea or vomiting continues or is not controlled with your anti-nausea drug(s).</p>
<p><b>Diarrhea</b> may sometimes occur. If you have diarrhea and it is not controlled, you can quickly become dehydrated.</p>	<p>If diarrhea is a problem:</p> <ul style="list-style-type: none"> <li>• Drink plenty of fluids.</li> <li>• Eat and drink often in small amounts.</li> <li>• Avoid high fibre foods as outlined in <i>Food Choices to Help Manage Diarrhea</i>.*</li> </ul> <p>Tell your healthcare team if you have diarrhea for more than 24 hours.</p>
<p><b>Sore mouth</b> may sometimes occur a few days after treatment. Mouth sores can occur on the tongue, the sides of the mouth, or in the throat. <b>Mouth sores or bleeding gums can lead to an infection.</b></p> <p>Sore mouth is more common with higher doses.</p>	<ul style="list-style-type: none"> <li>• Brush your teeth gently after eating and at bedtime with a very soft toothbrush. If your gums bleed, use gauze instead of a brush. Use baking soda instead of toothpaste.</li> <li>• Make a mouthwash with ¼ teaspoon baking soda AND ¼ teaspoon salt in 1 cup warm water and rinse several times a day.</li> <li>• Try the ideas in <i>Food Ideas to Try with a Sore Mouth</i>.*</li> </ul>

SIDE EFFECTS	MANAGEMENT
<p><b>Confusion, memory loss, and/or abnormal speech or body movements</b> may sometimes occur. These symptoms are more common with higher doses.</p>	<p>Call your healthcare team <b>immediately</b> if you have these symptoms.</p>
<p><b>Fatigue</b> is common especially in the first 1-2 weeks after your treatment. As the number of cycles increases fatigue may get worse.</p>	<ul style="list-style-type: none"> <li>• Your energy level should slowly improve (weeks – months) after your final treatment is completed.</li> <li>• Refer to the <i>Fatigue/Tiredness patient handout</i></li> </ul>
<p><b>Sugar control</b> may be affected in people with diabetes.</p>	<p>Check your blood sugar regularly if you are diabetic. See your doctor if you have signs of blood sugar problems such as thirst and frequent need to pass urine.</p>
<p><b>Increased energy and difficulty sleeping</b> may be due to dexamethasone.</p>	<ul style="list-style-type: none"> <li>• The days you take your dexamethasone you may feel as though you have extra energy.</li> <li>• You may also have difficulty sleeping at night.</li> <li>• Take the dexamethasone first thing in the morning to prevent insomnia at night.</li> </ul>
<p><b>Hair loss is rare.</b> If you lose hair, it will grow back once you stop treatment. Colour and texture may change.</p>	<p>If hair loss is a problem, refer to <i>Resources for Hair Loss and Appearance Changes – Patient Handout</i>.*</p> <ul style="list-style-type: none"> <li>• Use a gentle shampoo and soft brush.</li> <li>• Care should be taken with use of hair spray, bleaches, dyes, and perms.</li> </ul>

\* Please ask your nurse or pharmacist for a copy.

## THE FOLLOWING INFORMATION IS VERY IMPORTANT

### CHECK WITH YOUR HEALTHCARE TEAM OR GET EMERGENCY HELP IMMEDIATELY IF YOU HAVE:

- Signs of an **infection** such as fever (over 38°C or 100°F by an oral thermometer), shaking chills; cough, severe sore throat, productive cough (coughing up thick or green sputum); cloudy or foul smelling urine; painful, tender, or swollen red skin wounds or sores.
- Signs of **bleeding problems** such as black, tarry stools; blood in urine; pinpoint red spots on skin; extensive bruising.
- Signs of an **allergic reaction** (rare) soon after a treatment including dizziness, fast heart beat, face swelling, or breathing problems.
- **Seizures** or fainting.
- **Memory loss, trouble thinking, or changes in mood; difficulty talking; difficulty with balance, walking, clumsiness, or weakness** on one side of the body
- Signs of **heart or lung problems** such as fast or uneven heartbeat, chest pain, chest pressure, shortness of breath or difficulty in breathing, swelling of ankles, or fainting.

### CHECK WITH YOUR HEALTHCARE TEAM AS SOON AS POSSIBLE (DURING OFFICE HOURS) IF YOU HAVE:

- Signs of **anemia** such as unusual tiredness or weakness.
- Signs of **liver problems** such as yellow eyes or skin, white or clay-coloured stools.
- Signs of **gout** such as joint pain.
- **Numbness or tingling** in feet or hands.
- **Changes in eyesight or eye irritation.**
- Ringing in your ears or **hearing problems.**
- Difficulty **thinking** clearly and logically.
- Signs of **bladder problems** such as changes in urination, painful burning sensation, presence of blood, or abdominal pain.
- Signs of **kidney problems** such as lower back or side pain, swelling of feet or lower legs, numbness or tingling in feet or hands.
- Uncontrolled **nausea, vomiting** or diarrhea.

### CHECK WITH YOUR HEALTHCARE TEAM IF ANY OF THE FOLLOWING CONTINUE OR BOTHER YOU:

- Easy bruising or minor bleeding.
- Pain not controlled by acetaminophen.
- Redness, swelling, pain, or sores on your lips, tongue, mouth, or throat.
- Redness, swelling, pain, or sores where the needle was placed.
- Skin rash, itching, or blistering.
- Trouble sleeping.
- Loss of appetite.
- For diabetics: uncontrolled blood sugars.

**If you experience symptoms or changes in your body that have not been described above but worry you, or if any symptoms are severe, contact:**

\_\_\_\_\_ at telephone number: \_\_\_\_\_