



Provincial Health Services Authority

For the Patient: GDP-R

Other names: LYGDPR

G Gemcitabine

D Dexamethasone (taken by mouth)

P cisPlatin or carboPlatin

R Rituximab (also known as RITUXAN®, RITUXAN® SC)

Uses:

- GDP-R is a drug treatment given for Non-Hodgkin Lymphoma with the expectation of destroying cancer cells.
- GDP-R is currently offered to patients with aggressive (fast-growing) Non-Hodgkin Lymphoma

Treatment Plan:

- Your treatment plan consists of several (up to 6) chemotherapy cycles. Each cycle lasts 3 weeks (21 days). For each cycle you will have three drugs given intravenously (through the vein), plus a drug called dexamethasone taken as a pill by mouth.
- Your first treatment cycle will be over 2 days. Day 1 will be about 3 hours. The next day (Day 2) plan to spend about 5 hours in the treatment room. Each cycle thereafter will be approximately 5 hours. You may receive all the drugs on Day 1 or you may receive the drugs on two separate days (Day 1 and 2) or (Day 1 and 8), if a dose reduction is needed. You will take the oral medication, dexamethasone, daily with food for the first four days of each cycle.
- The day before each scheduled chemo treatment you will have a blood test and an appointment with your nurse and/or doctor to assess how you have tolerated your treatment.

Drugs:

- Four chemotherapy drugs (gemcitabine, dexamethasone, cisplatin or carboplatin and rituximab) will be given at each cycle. All drugs except the dexamethasone are given by injection into a vein. Rituximab can be given by injection into a vein or injected under the skin (subcutaneously or SC). Rituximab may be given on separate days throughout the treatment or may be given the same day (Day 1) after the first cycle.
- You will be given an oral medication (dexamethasone) to start on Day 1 and you will need to take this daily with food for a total of 4 days (Day 1-4).
- You will also be given a prescription for anti-nausea pills to help prevent nausea and vomiting. 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.
- A blood test will be taken prior to each cycle of treatment (every 3 weeks). The timing or the dose of chemotherapy may be changed based on your blood tests and/or other side effects.

Instructions:

- Bring your anti-nausea drugs and the acetaminophen and diphenhydramine with you to take before each IV treatment. The nurse will instruct you when to take your pills. You may also need to take anti-nausea pills at home after the chemotherapy. It is easier to prevent nausea than treat it once it has occurred, so follow directions closely.
- Call your cancer doctor immediately (day or night) at the first sign of any infection but especially if you have a fever over 38C or 100F.
- Other drugs such as some antibiotics given by vein (eg: tobramycin, vancomycin), furosemide (LASIX®), phenytoin (DILANTIN®), ethacrynic acid (EDECRIN®), pyridoxine (Vitamin B6), warfarin (COUMADIN®), and blood pressure medications may interact with GDP-R. 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.
- Avoid grapefruit juice for 48 hours before, and on the day of your treatment.
- 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 GDP-R 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.

Serious Side Effects:

Unexpected and unlikely side effects can occur with any drug treatment. The ones listed below are particularly important as they are directly related to the common actions of the drugs in your treatment plan.

- **Infection:** The number of white blood cells that help fight infections will be lowered by the treatment. Your blood count is expected to return to normal by Day 1 of the

next cycle. If your white blood cell count becomes very low you could get a serious infection. **If you have a fever over 38°C or 100°F, call your cancer doctor immediately or go to the nearest Hospital Emergency and tell them that you are on chemotherapy. It is recommended you have a working thermometer at home.**

- **Allergic Reaction:** Rituximab can cause allergic type reactions during or hours after your treatment. Report any lightheadedness or dizziness, difficulty breathing, cough, rash, skin flushing, itchy skin, tickle in throat, or chest tightness to your chemotherapy nurse immediately.
- **Bleeding Problems:** If you develop black tarry stools, blood in your urine, pinpoint red spots on the skin, or prolonged nose bleeds report them immediately to your doctor or nurse.

Common Side Effects and Management:

SIDE EFFECTS	MANAGEMENT
Fevers and chills may occur especially during the first Rituximab treatment.	<ul style="list-style-type: none"> • You will take acetaminophen (eg, TYLENOL®) and diphenhydramine (eg, BENADRYL®) before and every 4 hours during your rituximab treatment. Tell your nurse immediately if you have a reaction during treatment.
Hives , a type of allergic reaction, may occur. Hives are red or pale raised patches on your skin and are usually itchy. These reactions usually occur during or up to 24 hours after the infusion.	<ul style="list-style-type: none"> • Take diphenhydramine (eg, BENADRYL®) 25 or 50 mg up to 4 times a day. (Note: diphenhydramine causes drowsiness)
Cisplatin burns if it leaks under the skin.	Tell your nurse immediately if you feel pain, burning, stinging, or any other change while the drug is being given.
Pain or tenderness may occur where the needle was placed in your vein within 1-2 days after treatment. This may extend all the way up the arm. Sometimes pain may occur where the cancer is located.	<ul style="list-style-type: none"> • Apply warm compresses or soak in warm water for 15-20 minutes several times a day. • For pain, take acetaminophen (eg: Tylenol®). <p><i>See your doctor if the pain continues to bother you.</i></p>

SIDE EFFECTS	MANAGEMENT
<p>Redness, swelling, pain, or tenderness 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"> • Apply cool compresses for 15-20 minutes several times a day after the injection. • Tell your doctor or your nurse at the next visit if these reactions are very painful or last longer than 2 days.
<p>Nausea and vomiting can occur with this treatment and you will need to take anti-nausea medications before and after your chemotherapy.</p>	<p>You will be given a prescription for anti-nausea drug(s) to take before your chemotherapy treatment and/or at home. It is easier to prevent nausea than to treat it once it has happened, so follow directions closely.</p> <ul style="list-style-type: none"> • Drink plenty of liquids. • Eat and drink often in small amounts. • Try the ideas in “<i>Practical Tips to Manage Nausea</i>”. • Be sure to let your doctor know if you have nausea or vomiting later than 24 hours after your treatment.
<p>Your white blood cells may decrease 7-10 days after your treatment. They usually return to normal 2-3 weeks after your last treatment. White blood cells protect your body by fighting bacteria (germs) that cause infection. When they are low, you are at greater risk of having an infection.</p>	<p>To help prevent infection:</p> <ul style="list-style-type: none"> • Wash your hands often and always after using the bathroom. • Take care of your skin and mouth by gently washing regularly. • Avoid crowds and people who are sick. <p>Call your doctor immediately at the first sign of an infection such as fever (over 100°F or 38°C by an oral thermometer), chills, cough or burning when you pass urine.</p>

SIDE EFFECTS	MANAGEMENT
<p>Your platelets may decrease 6-13 days after your treatment. They will return to normal with time. Platelets help your blood clot if you cut yourself. You may bruise or bleed more easily than usual.</p>	<p>To help prevent bleeding problems:</p> <ul style="list-style-type: none"> • Try not to bruise, cut or burn yourself. • Clean your nose by blowing gently; do not pick your nose. • Avoid constipation • Avoid ASA (eg, ASPIRIN®) unless recommended by your doctor. • For minor pain use acetaminophen (TYLENOL®). Take your temperature prior to taking acetaminophen-containing products. • Do not take common painkillers such as ibuprofen (eg, ADVIL®, MOTRIN®)
<p>Constipation or diarrhea may occur.</p>	<p>To help constipation:</p> <ul style="list-style-type: none"> • Exercise if you can. • Drink plenty of liquids (8 cups a day). • Try ideas in “<i>Suggestions for Dealing with Constipation</i>”. <p>To help diarrhea:</p> <ul style="list-style-type: none"> • Drink plenty of liquids. • Eat and drink often in small amounts. • Avoid high fibre foods as outlined in “<i>Food Ideas to Help with Diarrhea during Chemotherapy</i>”.
<p>Hair loss sometimes occurs. If there is hair loss, your hair will grow back once you stop treatment. Colour and texture may change.</p>	<ul style="list-style-type: none"> • Use a gentle shampoo and soft brush. • Care should be taken with use of hair spray, bleaches, dyes and perms. • Refer to the pamphlet For the Patient: “<i>Hair loss due to chemotherapy</i>”
<p>Sore mouth may occur a few days after treatment. Mouth sores can occur on the tongue, the sides of the mouth or in the throat. Mouth sores or bleeding gums can lead to an infection</p>	<ul style="list-style-type: none"> • 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. • Make a mouthwash with ½ teaspoon baking soda or salt in 1 cup warm water and rinse several times a day. • Try soft, bland foods like puddings, milkshakes and cream soups. • Avoid spicy, crunchy or acidic food, and very hot or cold foods. • Call your doctor if you are having difficulty eating or drinking due to pain.

SIDE EFFECTS	MANAGEMENT
<p>Skin rash may occur after treatment with Gemcitabine. It is usually mild and is found on the arms, legs, chest, back or stomach. It may or may not be itchy.</p>	<ul style="list-style-type: none"> Apply hydrocortisone cream 0.5% sparingly 3-4 times daily.
<p>Fatigue 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"> Your energy level should slowly improve (weeks – months) after your final treatment is completed. Refer to the <i>Fatigue/Tiredness patient handout</i>
<p>Numbness or tingling of the fingers or toes may occur. This will slowly return to normal once your treatments are over. This may take several months.</p>	<ul style="list-style-type: none"> Be careful when handling items that are sharp, hot or cold. Tell your doctor at your next visit, especially if you have trouble with buttons, writing, or picking up small objects.
<p>Sugar control 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>Increased energy and difficulty sleeping may be due to dexamethasone.</p>	<ul style="list-style-type: none"> The days you take your dexamethasone you may feel as though you have extra energy. You may also have difficulty sleeping at night. Take the dexamethasone first thing in the morning to prevent insomnia at night.

If you experience symptoms or changes in your body that have not been described above but worry you, tell your doctor about them at the time of your next visit. If you have symptoms that are severe, contact:

_____ at telephone number _____

If you have symptoms that are severe or need emergency services, go to your local hospital's Emergency Department.