



Provincial Health Services Authority

For the Patient: LYEPOCHR

Other Names: DA-EPOCHR

E	Etoposide
P	Prednisone
O	Vincristine (ONCOVIN®)
C	Cyclophosphamide
H	Doxorubicin (ADRIAMYCIN®, Hydroxydaunorubicin)
R	Rituximab

Uses:

- EPOCHR is a drug treatment given for aggressive (fast-growing) B-cell Lymphomas which have two separate chromosome changes (double-hit lymphoma). The expectation of the drug treatment is to destroy cancer cells.
- EPOCHR is currently offered to patients with different types of Lymphomas including diffuse large b-cell lymphoma (DLBCL), transformed lymphoma, unclassified lymphoma and some patients with intermediate grade lymphoma or Burkitt lymphoma.

Treatment Plan:

- A central line will be inserted to make it easier for you to receive your treatment. This is a type of catheter that is placed in a large vein. Compared to a typical IV line, a central line is larger, can stay in place longer and can deliver a greater volume of fluids.
- Your treatment plan consists of up to 6 chemotherapy cycles.
- Each cycle lasts 3 weeks (21 days). For each cycle you will have five chemotherapy drugs, plus a drug called prednisone taken as a pill by mouth.
- You will receive treatment over 5 days
- During your treatment you may receive another chemotherapy drug which is given into the space around the spinal cord (intrathecally) for a total of eight injections.
- You will need lab work 2 times each week throughout your entire treatment and for three weeks following your last treatment cycle. This lab work is used to determine the next chemotherapy doses and also to determine how long you will remain on the drug filgrastim during your current treatment cycle.

The calendar below outlines your overall treatment plan

		DATE	TREATMENT PLAN	
CYCLE 1 to 6		Day 1	→	rituximab* IV
			→	etoposide, doxorubicin, vincristine IV x 24 hours
			→	prednisone orally twice a day
		Day 2	→	etoposide, doxorubicin, vincristine IV x 24 hours
			→	prednisone orally twice a day
	Day 3	→	etoposide, doxorubicin, vincristine IV x 24 hours	
		→	prednisone orally twice a day	
	Day 4	→	etoposide, doxorubicin, vincristine IV x 24 hours	
		→	prednisone orally twice a day	
	Day 5	→	cyclophosphamide* IV x 1 hour	
		→	prednisone orally twice a day	

methotrexate intrathecal injection to start Cycle 3 to Cycle 6 and is usually given on Day 2 and Day 5

- Your doctor may give rituximab on day 5 and cyclophosphamide on day 1 in certain situations

Drugs:

- Six chemotherapy drugs (etoposide, doxorubicin, vincristine, prednisone, cyclophosphamide and rituximab) will be given at each cycle. All drugs, except the prednisone, are given by injection into a vein.
- The etoposide, doxorubicin and vincristine are mixed together in the same bag and given over 24 hours for four days.
- Methotrexate intrathecal injections are started in Cycle 3 to Cycle 4 and given twice a week.
- A drug called filgrastim (also known as G-CSF, granulocyte colony stimulating factor) is started on Day 6 to improve your white blood cell count. The drug is given as an injection under the skin (subcutaneous, SC) daily until your white blood cell falls to the lowest point after the chemotherapy and then recovers to a set level ($5.0 \times 10^9/L$). Your nurse will teach you or a family member how to give a SC injection.

Instructions when you are discharged from the hospital:

- Call your cancer doctor immediately (day or night) at the first sign of any infection but especially if you have a fever over 38°C or 100°F.
- The filgrastim prescription is filled at your community pharmacy. Since it may not be commonly available the drugstore may require 1-2 days to obtain the drug.
- The cotrimoxazole and lansoprazole prescriptions are filled at your community pharmacy.
- The docusate and senna can be picked up at your community pharmacy and do not require a prescription.

- Check with your doctor or pharmacist before you start taking any new drugs. Other drugs such as barbiturates, digoxin (LANOXIN®), ciprofloxacin (CIPRO®) and similar antibiotics, phenytoin (DILANTIN®), carbamazepine (TEGRETOL®), ketoconazole (NIZORAL®) and similar antibiotics, nifedipine (ADALAT®), blood pressure medications and warfarin (COUMADIN®), may interact with EPOCH-R.
- 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 prednisone; discuss this with your doctor or pharmacist.
- Tell other doctors or dentists that you are being treated with chemotherapy before you receive any treatment from them.
- Use effective contraception (birth control) if you are of child bearing age or if your partner is. 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 chemotherapy. Filgrastim is used to increase your white blood cells. You continue filgrastim until your white blood cells reach a set level. 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 (24 hours a day) or go immediately to your nearest Hospital Emergency and tell the doctor 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 light-headedness or dizziness, difficulty breathing, shortness of breath, 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.
- **Tissue Injury:** Doxorubicin and vincristine can cause tissue injury while they are being given. Report any sensation of burning, stinging or pain to your chemotherapy nurse immediately.
- **Early menopause:** If you are a woman still having menstrual periods, EPOCH-R may cause your ovaries to stop working, resulting in menopausal symptoms (such as hot flashes) and infertility. Your periods may stop. This may be permanent especially if you are 40 years of age or older.
- **Heart failure:** Rarely, doxorubicin can have an effect on the heart in some patients causing failure of the heart's pumping action which results in shortness of breath,

fatigue and leg swelling. Report shortness of breath, chest pain, or a fast or uneven heart beat to your doctor immediately.

- **Bladder problems:** Rarely, cyclophosphamide may cause damage to the lining of the bladder. Report any signs of blood in urine, frequent need to pass urine, or pain on passing urine to your doctor immediately.

Common Side Effects and Management:

SIDE EFFECTS	MANAGEMENT
<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 drugs to take before your IV treatment and later at home.</p> <ul style="list-style-type: none"> • It is easier to prevent nausea than treat it once it has occurred, so follow directions closely. • Refer to the following pamphlets: <i>For the Patient: Managing Nausea; Chemotherapy & You; Food choices to help control nausea*</i>
<p>Fevers and chills may occur especially during the first Rituximab treatment.</p>	<ul style="list-style-type: none"> • You will take acetaminophen (e.g., TYLENOL®) and diphenhydramine (e.g., BENADRYL®) before and every 4 hours during your rituximab treatment. Tell your nurse immediately if you have a reaction during treatment.
<p>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.</p>	<ul style="list-style-type: none"> • Take diphenhydramine (e.g., BENADRYL®) 25 or 50 mg up to 4 times a day. (Note: diphenhydramine causes drowsiness)

SIDE EFFECTS	MANAGEMENT
<p>Hair Loss. Your hair will fall out 2-4 weeks after treatment begins. Your scalp may feel tender. You may lose hair on your face and body. Your hair will grow back once your treatments are over and sometimes between treatments. The colour and texture of the new hair growth may be different.</p>	<ul style="list-style-type: none"> • Cutting your hair short or shaving your head may be more comfortable. • Avoid hair spray, bleaches, dyes and perms. • Apply mineral oil to your scalp to reduce itching. • If you lose your eyelashes and eyebrows, protect your eyes from dust and grit with a broad-rimmed hat and glasses. • Ask your nurse about information on wigs and head coverings.
<p>Mouth Sores may occur a few days after treatment. Mouth sores can occur on the tongue, gums and sides of the mouth or in your 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 soft toothbrush. If your gums bleed use gauze instead of a brush. Use baking soda instead of toothpaste. • Try baking soda mouth rinses (using ¼ tsp baking soda in 1 cup warm water) and rinse several times a day. Try ideas in <i>Easy to chew, easy to swallow food ideas*</i>. • Tell your doctor about a sore mouth, as your chemotherapy doses may need to be decreased if mouth sores are severe.
<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 pamphlet '<i>Your Bank to Energy Savings-How people with cancer can handle fatigue</i>'

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 (e.g., 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 (e.g., ADVIL®, MOTRIN®)
<p>Severe constipation could occur due to vincristine.</p>	<ul style="list-style-type: none"> • See your doctor as soon as possible if you get severe constipation. • Drink plenty of fluids • Add prunes or prune juice to diet • Eat foods high in fibre such as bran, whole grain breads and cereals, nuts, raw fruits and vegetables. • Ask your nurse about the pamphlet <i>‘Suggestions for dealing with Constipation’</i>
<p>Numbness or tingling of fingers or toes could occur due to vincristine.</p>	<ul style="list-style-type: none"> • Numbness and tingling of the toes and fingers will slowly return to normal after your last chemo. • Tell your doctor at your next visit if you develop numbness or have trouble picking up small objects, doing up buttons or writing. • Be careful handling sharp, hot or cold objects.
<p>Your urine may be pink or reddish for 1-2 days after your treatment.</p>	<p>This is expected as doxorubicin is red and is passed in your urine.</p>
<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>

SIDE EFFECTS	MANAGEMENT
<p>Increased energy and difficulty sleeping may be due to prednisone.</p>	<ul style="list-style-type: none"> • The days you take your prednisone you may feel as though you have extra energy. • You may also have difficulty sleeping at night. • Take the prednisone 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 any symptoms 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.

* Available through your nurse