Cyclophosphamide

- **Cyclophosphamide** (sigh-kloe-FOSS-fa-mide) is a drug that is used to treat many types of cancers. It is a clear liquid that is injected into a vein.
- Tell your doctor if you have ever had an unusual or **allergic reaction** to cyclophosphamide before taking cyclophosphamide.
- A **blood test** may be taken before each treatment. The dose and timing of your chemotherapy may be changed based on the test results and/or other side effects.
- Your doctor may tell you to **drink** plenty of liquids e.g., 8 to 12 cups (2000 to 3000 mL or 70 to 100 oz) a day. Depending on your dose, you may be told to **empty your bladder** (pass urine) frequently, every 2 hours while you are awake and at bedtime for at least 24 hours after your dose. Your doctor may also tell you to get up in the night to empty your bladder. This helps prevent bladder and kidney problems.
- Some drugs, herbal products and supplements may **interact** with your treatment. Tell your doctor or pharmacist if you are taking any of these or before you start taking any new drugs.
- Cyclophosphamide may cause **sterility** in men and **menopause** in women. The risk of this occurring depends on the dose of cyclophosphamide and your age. If you plan to have children, discuss this with your doctor before being treated with cyclophosphamide.
- Cyclophosphamide may damage sperm and may harm the baby if used during pregnancy. It is best to use **birth control** while being treated with cyclophosphamide. Tell your doctor right away if you or your partner becomes pregnant. Do not breast feed during treatment.
- **Tell** doctors, dentists or other health care providers that you are being treated with this medication before you receive any other treatment from them.

Changes in blood counts

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

SIDE EFFECTS	MANAGEMENT
Your white blood cells may decrease 8 -15 days after your treatment. They usually return to the previous level 17- 28 days after your last treatment. Normal white blood cells protect your body by fighting bacteria (germs) that cause infection. **When they are low, you are at greater risk of getting an infection.**	**To help prevent infection:** • Wash your hands often and always after using the bathroom. • Avoid crowds and people who are sick. • Visit the Urgent Care Unit at the National Center for Cancer Care and Research (NCCCR) **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.
Your **platelets** may decrease 10 to 15 days after your treatment. They usually return to the previous level 17 to 28 days after your last treatment. Platelets help to make your blood clot when you hurt yourself. **You may bruise or bleed more easily than usual.**	To help prevent bleeding problems: • Try not to bruise, cut, or burn yourself. • Clean your nose by blowing gently. • Do not pick your nose. • Avoid constipation. • Brush your teeth gently with a soft toothbrush as your gums may bleed more easily. Maintain good oral hygiene. Some medications such as aspirin, ibuprofen or other pain medications may increase your risk of bleeding. • For minor pain, try paracetamol (Panadol®) • Refer to your doctor if any of these medications have been prescribed to you.

Side effects that may occur and tips for management

SIDE EFFECTS	MANAGEMENT
Pain or tenderness may occur where the needle was placed.	Apply cool compresses or soak in warm water for 15 to 20 minutes several times a day.
Nasal congestion may occur during administration of cyclophosphamide. You may experience runny eyes and nose, sinus congestion and sneezing during or immediately after the infusion.	Tell your doctor if you have persistent nasal congestion since a decongestant or decongestant/antihistamine or might be required.
Nausea and vomiting may occur after your treatment. May begin 6-10 hours after the beginning of your treatment. Some people have little or no nausea.	You may 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 treat it once it has occurred, so follow directions closely. • Drink plenty of liquids. • Eat and drink often in small amounts.
Headache may occur.	• Take paracetamol (Panadol ®) to decrease or stop headache.
Diarrhea may occur.	• Drink plenty of liquids. • Eat and drink often in small amounts. • Avoid high fiber foods.
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.**	• 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.

Patient education leaflet
Adapted from BC Cancer Drug Manual (Developed: September 1994, Revised: September 2005, Limited revision: 20 February 2007)
Prepared by Clinical Pharmacy Department at the National Center for Cancer Care and Research - Version 1 on May 2017

Hair loss is common and may begin within 3 to 6 weeks of treatment. Your hair may thin or you may become totally bald. 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. Colour and texture may change.	• Use a gentle shampoo and soft brush. • 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. • Protect your scalp with a hat, scarf or wig in cold weather. • Cover your head or apply sunblock on sunny days.
Loss of appetite and **weight loss** are common and may persist long after discontinuation of cyclophosphamide.	

SEE YOUR DOCTOR OR GET EMERGENCY HELP IMMEDIATELY IF YOU HAVE:

- Signs of an **infection** such as fever (over 100°F or 38°C by an oral thermometer),chills, cough, pain or burning when you pass urine.
- Signs of **bleeding problems** such as blood in urine or stools.
- Signs of an **allergic reaction** (rare) soon after a treatment including dizziness, fast heartbeat, face swelling or breathing problems.
- 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.

SEE YOUR DOCTOR AS SOON AS POSSIBLE (DURING OFFICE HOURS) IF YOU HAVE:

- Signs of **bladder problems** such as changes in urination, painful burning sensation, presence of blood or abdominal pain.
- Signs of **anemia** such as unusual tiredness or weakness.
- Signs of **kidney problems** such as lower back or side pain, swelling of feet or lower legs.
- **Skin rash or itching.**

CHECK WITH YOUR DOCTOR IF ANY OF THE FOLLOWING CONTINUE OR BOTHER YOU:

- Uncontrolled nausea, vomiting or diarrhea.
- For diabetics: uncontrolled blood sugars.
- Headache not controlled with paracetamol (Panadol®).
- Easy bruising or bleeding.
- Redness, swelling, pain or sores where the needle was placed.
- Redness, swelling, pain or sores on your lips, tongue, mouth or throat.

REPORT ADDITIONAL PROBLEMS TO YOUR DOCTOR

This is a summary of useful information to help you understand and take your medicine safely .

We are available to answer your questions For urgent inquiries contact :

- **Urgent care unit at the National Center of Cancer Care and Research (NCCCR) TEL : 44397179 (available 24 hours, all week days).**

For further information or question contact :

- **Your doctor** (from 7 am – 3 pm) .
- **Clinical Pharmacy section,** TEL: 44397239 (Sun-Thurs from 7 am – 3 pm) .
- **Outpatient Pharmacy**, TEL: 44397531, 44397825 (Sun-Thurs from 7 am – 3 pm) .

Pharmacy Department