



Provincial Health Services Authority

For the Patient: GUMVAC

Transitional Cell Cancers of the Urothelium using Methotrexate, vinBLASTine, DOXOrubicin and CISplatin

GU = GenitoUrinary

M = Methotrexate

V = Vinblastine

A = Adriamycin (doxorubicin)

C = Cisplatin

ABOUT THIS MEDICATION

What are these drugs used for?

- Methotrexate, Vinblastine, Doxorubicin (ADRIAMYCIN®, RUBEX®), and Cisplatin (PLATINOL®) are used to treat cancer in the lining of the bladder, kidney, and ureter (urothelium cancer).

How do these drugs work?

- These drugs work together to limit the growth of cancer and kill the cancer cells.

TREATMENT SUMMARY

How are these drugs given?

- **Methotrexate** is given into a vein (IV) on days 1, 15, and 22.
- **Vinblastine** is given into the vein (IV) on days 2, 15, and 22.
- **Doxorubicin** and **cisplatin** are given into the vein (IV) on day 2.
- After 28 days from the start of treatment this “cycle” will repeat. You will go through multiple cycles depending on your response to treatment and/or the side effects you experience.

What will happen when I get my drugs?

- A blood test will be taken before starting treatment and before each cycle. The blood test may also be repeated at anytime during treatment. The dose and timing of your chemotherapy may be changed based on the results of the blood tests and/or other side effects.
- Your doctor may also ask you to take a hearing test before and during treatment with cisplatin.
- Before the drugs are given you will be given medications to help with nausea.

SIDE EFFECTS AND WHAT TO DO ABOUT THEM

Your doctor will review the risks of treatment and possible side effects with you before starting treatment.

Side effects that can occur with these medications are listed in the following table in the order in which they may occur. Tips to help manage the side effects are included.

SIDE EFFECTS	MANAGEMENT
Pain or tenderness may occur where the needle was placed.	Apply cool compresses or soak in cool water for 15-20 minutes several times a day.
Vinblastine, doxorubicin, and cisplatin burn if they leak under the skin.	Tell your nurse or doctor <i>immediately</i> if you feel burning, stinging, or any other change while the drug is being given.
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.	<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.• You can also request a prescription for Magic Mouthwash from your doctor.
Nausea and vomiting may occur after your treatment.	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. <ul style="list-style-type: none">• Drink plenty of liquids.• Eat and drink often in small amounts.
Diarrhea may occur.	To help diarrhea: <ul style="list-style-type: none">• Drink plenty of liquids.• Eat and drink often in small amounts.• Avoid high fibre foods

Side effects for METHOTREXATE are listed in the table below:

SIDE EFFECTS	MANAGEMENT
Skin rashes may occur.	To help itching: <ul style="list-style-type: none"> • You can use calamine lotion. • If very irritating, call your doctor during office hours. • Otherwise make sure to mention it at your next visit.
Fever and chills may occur shortly after treatment with methotrexate. Fever should last no longer than 24 hours.	<ul style="list-style-type: none"> • Take acetaminophen (e.g., TYLENOL®) every 4-6 hours, to a maximum of 4 g (4000 mg) per day. • Fever which occurs more than a few days after treatment may be the sign of an infection.
Muscle or joint pain may rarely occur a few days after your treatment.	You may take acetaminophen (e.g., TYLENOL®). Tell your doctor if the pain interferes with your activity.
Loss of appetite and weight loss are common and may persist long after discontinuation of methotrexate.	<ul style="list-style-type: none"> • Increase high calorie/protein fluids such as full-fat milk, homemade smoothies, nutritional supplements • Limit fluid intake prior to meals • Increase intake of high calorie foods
Tiredness , lack of energy and sometimes dizziness may occur.	Do not drive a car or operate machinery if you are feeling tired.
Hair loss is rare with methotrexate. Your hair will grow back once you stop treatment with methotrexate. Colour and texture may change.	<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.
Your skin may darken in some areas.	This will slowly return to normal once you stop treatment with methotrexate.
Your skin may sunburn easily.	To help prevent sunburn: <ul style="list-style-type: none"> • Avoid direct sunlight. • Wear a hat, long sleeves and long pants or skirt outside on sunny days. • Apply a sunscreen with an SPF (sun protection factor) of at least 30.

Side effects for VINBLASTINE are listed in the table below:

SIDE EFFECTS	MANAGEMENT
Skin rashes may rarely occur.	If itching is very irritating, call your doctor. Otherwise make sure to mention it at your next visit.
Your skin may sunburn more easily than usual.	Refer to <i>Your Medication Sun Sensitivity and Sunscreens*</i> or the <i>BC Health Guide</i> for more information. • After sun exposure, if you have a severe sunburn or skin reaction such as itching, rash, or swelling, contact your doctor.
Tiredness and lack of energy may rarely occur.	Do not drive a car or operate machinery if you are feeling tired.
Headache, jaw pain and/or muscle pain may sometimes occur.	Take acetaminophen (e.g., TYLENOL®) every 4-6 hours if needed, to a maximum of 4 g (4000 mg) per day.
Constipation commonly occurs and may be severe.	<ul style="list-style-type: none"> • Use stool softeners and laxatives to prevent constipation. • Avoid bulk-forming laxatives (e.g., METAMUCIL®, PRODIEM®). • Drink plenty of fluids. • Exercise if you can.
Numbness or tingling of the fingers or toes may sometimes occur. This will slowly return to normal once your treatments are over. This may take several months.	<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.
Hair loss sometimes occurs with vinblastine. Hair loss is usually mild. Loss of body hair may occur. Your hair will grow back once you stop treatment with vinblastine. Colour and texture may change.	<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. • Protect your scalp with a hat, scarf or wig in cold weather. Some extended health plans will pay part of the cost of a wig. • Cover your head or apply sunscreen on sunny days. • 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.

Side effects for DOXORUBICIN are listed in the table below:

SIDE EFFECTS	MANAGEMENT
Your urine may be pink or reddish for 1-2 days after your treatment.	This is expected as doxorubicin is red and is passed in your urine.
Hair loss is common and may begin within a few days or 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.	<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. • Protect your scalp with a hat, scarf or wig in cold weather. Some extended health plans will pay part of the cost of a wig. • Cover your head or apply sunscreen on sunny days. • 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.
Your skin may darken in some areas such as your nails, soles or palms.	This will slowly return to normal once you stop treatment with doxorubicin.
Loss of appetite and weight loss are common and may persist long after discontinuation of doxorubicin.	<ul style="list-style-type: none"> • Increase high calorie/protein fluids such as full-fat milk, homemade smoothies, nutritional supplements • Limit fluid intake prior to meals • Increase intake of high calorie foods.*

Side effects for CISPLATIN are listed in the table below:

SIDE EFFECTS	MANAGEMENT
Allergic reactions may rarely occur. Signs of an allergic reaction are dizziness, confusion and wheezing. This reaction occur immediately or several hours after receiving cisplatin. This reaction can occur after the first dose of cisplatin or after many doses of cisplatin.	Tell your nurse if this happens while you are receiving cisplatin or contact your oncologist immediately if this happens after you leave the clinic.

Changes in blood counts

Doxorubicin and methotrexate 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.

BLOOD COUNTS	MANAGEMENT
<p>Normal 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. • Avoid crowds and people who are sick. • 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>Normal platelets help your blood to clot normally after an injury (e.g., cut). When the platelet count is low you may be more likely to bruise or bleed.</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. • Brush your teeth gently with a soft toothbrush as your gums may bleed more easily. Maintain good oral hygiene. <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"> • Do not stop taking any medication that has been prescribed by your doctor (e.g., ASA for your heart). • For minor pain, try acetaminophen (e.g., TYLENOL®) first, but occasional use of ibuprofen may be acceptable.

INSTRUCTIONS FOR THE PATIENT:

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

- Signs of an **allergic reaction** soon after a treatment including dizziness, fast heart beat, face swelling, abdominal pain or breathing problems.
- Signs of an **infection** such as fever (over 100°F or 38°C by an oral thermometer), shaking chills; 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 a **stroke** such as sudden onset of: severe headache, eyesight changes, slurred speech, loss of coordination, weakness or numbness in arm or leg.
- Signs of a **blood clot** such as tenderness or hardness over a vein, calf swelling and tenderness, sudden onset of cough, chest pain, or shortness of breath.

- 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 feet or lower legs, or fainting.
- Signs of **bleeding problems** such as black, tarry stools; blood in urine; pinpoint red spots on skin; extensive bruising.
- **Seizures** or **loss of consciousness**.
- **Confusion, extreme tiredness or restlessness, or hallucinations** (seeing, hearing, or feeling things that are not there).
- Severe **abdominal pain**.

SEE YOUR DOCTOR 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 **kidney problems** such as lower back or side pain, swelling of feet or lower legs.
- **Changes in eyesight** or **drooping eyelids**.
- **Skin rash** or **itching**.
- **Muscle weakness**.
- Uncontrolled **nausea, vomiting** or diarrhea.
- **Constipation** that is not relieved by stool softeners and laxatives.
- Signs of **gout** such as joint pain.
- **Dizziness** or **hearing problems**.
- Increased **sore throat or mouth** that makes it difficult to swallow comfortably.

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 _____