

## For the Patient: GUBEP

Other Names: Curative Therapy for Germ Cell Cancer using Bleomycin, Etoposide and CISplatin

**GU** = Genito**U**rinary (tumour group)

**B** = **B**leomycin

**E** = **E**toposide

**P** = **PLATINOL**® (Cisplatin)

### ABOUT THIS MEDICATION

#### What are these drugs used for?

- Cisplatin, etoposide and bleomycin are intravenous drug treatments given to treat some types of germ cell testicular cancer.

#### How do these drugs work?

- Cisplatin (**sis-PLAT-in**), etoposide (**ee-TOP-aw-side**) and bleomycin (**blee-oh-MICE-in**) work by interfering with the genetic material of replicating cells and preventing an increase in the number 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 or prevent the onset of new symptoms.
- It may take several treatments before your doctor can judge whether or not this treatment is helping.

### TREATMENT SUMMARY

#### How are these drugs given?

- The days when you are receiving cisplatin, etoposide and bleomycin, together with the days-off after them, may be referred to as a “**cycle**”.
- Cisplatin and etoposide will be given intravenously (via the vein) daily for **5 days** every **21 days** for a number of cycles ranging from 2-4 cycles (i.e. 2- 4 months). Your oncologist will determine the number of cycles based on the extent of your disease.
- Bleomycin will be given only once on **day 1**, **day 8** and **day 15** of each cycle. There are a maximum number of doses that one is allowed to receive based on prior exposure. Your oncologist will determine the maximum number of treatments with Bleomycin that you are able to receive.

**The calendar below outlines your overall treatment plan for each cycle.**

## GUBEP Treatment Protocol

Start Date: \_\_\_\_\_

### Cycle 1:

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Cisplatin Etoposide Bleomycin	Cisplatin Etoposide	Cisplatin Etoposide	Cisplatin Etoposide	Cisplatin Etoposide	No chemo	No chemo
Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Bleomycin	No chemo	No chemo	No chemo	No chemo	No chemo	No chemo
Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
Bleomycin	No chemo	No chemo	No chemo	No chemo	No chemo	No chemo

**This 21-day cycle will repeat 1 to 3 more times as determined by your oncologist**

### What will happen when I get my drugs?

- A blood test is done each cycle, on or about the day before each treatment. The dose and timing of your treatment may be changed based on your blood counts and/or other side effects.
- 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.
- Prior to bleomycin you will be given a medication called hydrocortisone, which will prevent any allergic responses to bleomycin.
- It is important that you increase your fluid intake throughout the treatment period. Drink lots of fluids for a few days before, the day of and a couple of days after each chemotherapy day (at least 6-8 cups a day).
- Avoid taking any medications such as ibuprofen (e.g. Advil®), ASA (e.g. ASPIRIN®) on the day that you will be receiving cisplatin, as it may impact the rate that cisplatin is eliminated from the body and increase risk of kidney problems.
- Etoposide can cause allergic reaction in some patients. If this happens, you may be treated with etoposide phosphate (ETOPOPHOS®) instead. Etoposide phosphate would be given to you in the same way as etoposide, as discussed above.

## **MEDICATION INTERACTIONS**

- Other drugs such as some antibiotics e.g., tobramycin, vancomycin [given by vein](#)), and furosemide (LASIX®), phenytoin (DILANTIN®) and pyridoxine may **interact** with cisplatin. [Drugs such as digoxin \(LANOXIN®\) and phenytoin \(DILANTIN®\) may \*\*interact\*\* with bleomycin.](#) [Drugs such as atovaquone \(MEPRON®\), warfarin \(COUMADIN®\), glucosamine and St John's Wort may \*\*interact\*\* with etoposide.](#) Tell your doctor if you are taking the above or any other drugs, as you may need extra blood tests or your dose may need to be changed. Check with your doctor or pharmacist before you [start or stop](#) taking any new drugs.

### **During or after treatment:**

- **Hearing Problems:** [Your doctor may tell you to take a \*\*hearing test\*\* before and at various times during your treatment with cisplatin. This helps detect hearing problems.](#)
- **Kidney Dysfunction:** Cisplatin can cause changes in kidney function, but this is not frequent with the doses used in this regimen. It is important that you are well-hydrated before and after treatment, to help avoid kidney damage from cisplatin. Call your treatment centre if you having difficulties with nausea, vomiting, or diarrhea after treatment, as you may need intravenous fluids and medications to help you through. Your doctor will check your blood prior to each treatment cycle, to make sure no significant damage is occurring to your kidneys from this drug.
- **Oxygen** may increase the risk of lung problems during and after treatment with bleomycin. Lung problems can occur months or years after treatment. **Tell** your doctors or dentists that you have been treated with bleomycin before you receive any type of surgery. You should carry a **wallet card** (e.g., BC Cancer Agency Bleomycin card) or wear a **wrist bracelet** (e.g., MEDICALERT®) to alert health providers. Avoid activities which use increased oxygen pressure, such as scuba diving, for the rest of your life.
- [Cisplatin, etoposide, and etoposide phosphate may cause sterility in men and menopause in women. If you plan to have children, discuss this with your doctor before treatment.](#)
- [Cisplatin, etoposide, etoposide phosphate, and bleomycin may damage sperm and may harm the baby if used during pregnancy. It is best to use birth control while being treated with etoposide. Tell your doctor right away if you or your partner becomes pregnant. Do not breast feed during treatment.](#)

## **SIDE EFFECTS AND WHAT TO DO ABOUT THEM**

[Your healthcare team will review the risks of treatment and possible side effects with you before starting treatment.](#)

SIDE EFFECT	MANAGEMENT
<p><b>Allergic reactions</b> may rarely occur. Signs of an allergic reaction may include flushing, rash, itching, dizziness, swelling or breathing problems.</p> <p>This can occur immediately or several hours after receiving treatment.</p>	<p>Tell your nurse if this happens while you are receiving treatment or contact your oncologist <b>immediately</b> if this happens after you leave the clinic.</p>
<p>Cisplatin, etoposide, and etoposide phosphate <b>burn</b> if they leak under the skin.</p>	<p>Tell your nurse or doctor <b>immediately</b> if you feel burning, stinging, or any other change while the drug is being given.</p>
<p><b>Pain or tenderness</b> may occur where the needle was placed.</p>	<p>Apply cool compresses or soak in cool water for 15-20 minutes several times a day</p>
<p><b>Nausea and vomiting</b> may occur after your treatment. If you are vomiting and it is not controlled, you can quickly become dehydrated.</p>	<p>You will be given a prescription for anti-nausea drug(s) to take before your treatment and/or at home. It is easier to prevent nausea than treat it once it has occurred, 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 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>Fever and chills</b> may occur shortly after treatment with bleomycin. Fever should last no longer than 24 hours.</p>	<ul style="list-style-type: none"> <li>• Take acetaminophen (e.g., <b>TYLENOL®</b>) 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>

SIDE EFFECT	MANAGEMENT
<p>Your <b>white blood cells</b> may decrease after your treatment. They usually return to normal after your last treatment. White blood cells protect your body by fighting bacteria (germs) that cause infection. When they are low, <b>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> </ul> <p>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.</p>
<p>Your <b>platelets</b> may decrease after your treatment. They usually return to normal after your last treatment. Platelets help to make your blood clot when you hurt yourself. <b>You may bruise or bleed more easily than usual.</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. Maintain good oral hygiene.</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>).</li> <li>• For minor pain, try acetaminophen (e.g., TYLENOL®) first, to a maximum of 4 g (4000 mg) per day</li> </ul>
<p><b>Numbness or tingling of the fingers or toes</b> 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"> <li>• Be careful when handling items that are sharp, hot, or cold.</li> <li>• Be careful when walking on uneven surfaces or doing activities that need you to balance or be steady.</li> <li>• Tell your healthcare team at your next visit if you have trouble with buttons, writing, picking up small objects, walking, or have fallen.</li> </ul>
<p><b>Sore mouth</b> may 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>	<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 EFFECT	MANAGEMENT
<b>Taste alteration</b> may occur.	Try the ideas in <i>Food Ideas to Cope with Taste and Smell Changes</i> .*
<b>Tiredness</b> and lack of energy may occur.	<ul style="list-style-type: none"> <li>Do not drive a car or operate machinery if you are feeling tired.</li> <li>Try the ideas in <i>Fatigue/Tiredness – Patient Handout</i>.*</li> </ul>
<b>Dizziness or feeling faint</b> may occur during administration of IV etoposide.	<ul style="list-style-type: none"> <li>Tell your nurse or doctor <b>immediately</b>.</li> <li>Lie down or sit with your feet elevated.</li> </ul>
<b>Hair loss</b> is common and may begin within a few days or weeks of treatment. Your hair may thin or you may <b>lose it completely</b> . Your scalp may feel tender. Hair loss may occur on your face and body. Hair will grow back once your treatments are over and sometimes between treatments. Colour and texture may change.	<p>Refer to <i>Resources for Hair Loss and Appearance Changes – Patient Handout</i>.*</p> <p>You may also want to:</p> <ul style="list-style-type: none"> <li>Apply mineral oil to your scalp to reduce itching.</li> <li>If you lose your eyelashes and eyebrows, protect your eyes from dust and grit with a broad-brimmed hat and glasses.</li> </ul>
<b>Loss of appetite</b> and <b>weight loss</b> may occur and may persist after discontinuation of treatment.	<ul style="list-style-type: none"> <li>Try the ideas in <i>Food Ideas to Help with Decreased Appetite</i>.*</li> </ul>
<b>Constipation</b> may occur.	<ul style="list-style-type: none"> <li>Exercise if you can.</li> <li>Drink plenty of fluids.</li> <li>Try the ideas in <i>Food Choices to Manage Constipation</i>.*</li> </ul>
<b>Skin rashes</b> may occur.	If itching is very irritating, call your healthcare team. Otherwise, be sure to mention it at your next visit.

\* Please ask a member of your healthcare team for a copy.

### 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; 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 or tarry stools, blood in urine, pinpoint red spots on skin, or extensive bruising.
- Signs of an **allergic reaction** (rare) soon after a treatment including dizziness, fast heartbeat, face swelling, or breathing problems.
- 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.

- **Seizures or fainting.**
- 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.
- Repeated **vomiting** and cannot keep fluids or medications down.

**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 \_\_\_\_\_**