



## For the Patient: GUBEP

Other Names: Treatment with Bleomycin, Etoposide, Cisplatin for Germ Cell Cancers.

### BC Cancer Agency

**GU** = **GenitoUrinary** (tumor group)

**B** = **Bleomycin**

**E** = **Etoposide**

**P** = **Platin** (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, Etoposide and Bleomycin 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.

Medications/cycle:	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6-7	Day 8	Day 9-14	Day 15
Etoposide	X	X	X	X	X				
Cisplatin	X	X	X	X	X				
Bleomycin	X						X		X

### **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.
- You will be given a prescription for anti-nausea drugs to take 30 minutes before the treatment and again about 12 hours after, and will usually be on anti-nausea drugs the following 2 days also, each of the treatment weeks.
- Bring your anti-nausea pills with you to take before each treatment. You will also need to take your anti-nausea drugs at home after therapy. It is easier to prevent nausea than 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.

### **MEDICATION INTERACTIONS**

- Other drugs such as some antibiotics given by vein (e.g., tobramycin, vancomycin), and furosemide (LASIX®), phenytoin (DILANTIN®) and pyridoxine may ***interact*** with Cisplatin. 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 taking any new drugs.

### **Serious Side Effects of Chemotherapy:**

**Unexpected and unlikely side effects can occur with any drug treatment. The ones listed below are particularly relevant to your treatment plan:**

#### **During treatment:**

- **Infection:** The number of white blood cells that help fight infection may be lowered by the chemotherapy drugs, usually starting after about day 7 of each cycle. Your blood count is expected to return to normal by day 1 of the next cycle, and will be normal after the 4-5 months of chemotherapy drugs. 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 you are on chemotherapy.**
- **Increased risk of bleeding:** The number of platelets (special blood cells that help your blood to clot normally after injury) may be lowered by the treatment. They are expected to return to normal by day 1 of next cycle. When the platelet count is low you may be more likely to bruise or bleed. Notify your cancer doctor promptly if you develop large or numerous bruises, or unusual bleeding (e.g. nosebleed that won't

stop, blood in stool, urine, or sputum). Try to avoid using ASA or ibuprofen, if other pain medications could be used, as they may increase the risk of bleeding or kidney problems, but if you need to use one of these medications, let your doctor know. For patients receiving Warfarin, a modification of the dose may be required based on blood test results (increased INR due to possible interaction with chemotherapy).

- **Tissue or vein injury:** Cisplatin can cause tissue injury if they leak out of the vein while being given. Report any sensation of burning or pain to your nurse immediately. Chemotherapy may cause some inflammation and/or scarring in the veins, which may make it difficult to start an IV. Your nurse will help your doctor assess whether a special intravenous device (PICC line or portacath) needs to be considered for your therapy. Pain or tenderness may occur where the needle was placed in your vein. If so, apply cool compresses or soak in cool water for 15-20 minutes several times a day.

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

- **Neuropathy:** Cisplatin can cause you to develop damage to the peripheral nerve endings (the nerves to the hands and feet, and rarely, the face). This can result in feelings of numbness and tingling, or sometimes painful burning sensations. You will need to be careful when handling things that are sharp, hot, or very cold. The majority of the times, these feelings develop after a number of treatments, are not severe, and will resolve fully over a period of months once treatment stops. Infrequently (<5%), these feelings might occur early, might be severe, or might not entirely resolve. There is more chance of problems being severe or lasting if treatment is very prolonged.
- **Hearing Problems:** One of the nerves which can be damaged by Cisplatin is the nerve which allows you to hear. This could result in you experiencing “tinnitus”, or ringing in the ears, or loss of hearing. Report to your doctor and/or nurse if you are experiencing these types of difficulties, and make sure they are aware of hearing problems, if these exist prior to any treatment.
- **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.

## Common chemotherapy side effects and management:

<b>SIDE EFFECT</b>	<b>MANAGEMENT</b>
<p><b>Nausea and vomiting</b> can occur with Cisplatin. You will need anti-nausea drugs for Cisplatin each week of treatment.</p>	<p>Follow the directions on your anti-nausea pill bottles.</p> <ul style="list-style-type: none"> <li>• It is easier to prevent nausea than treat it once it has occurred, so follow directions closely.</li> <li>• If you have a lot of nausea despite your medications, contact your clinic for advice.</li> <li>• Refer to the following pamphlets: <i>For the Patient: Managing Nausea; Chemotherapy &amp; You; Food choices to help control nausea*</i>.</li> </ul>
<p><b>Allergic reactions</b> may rarely occur. Signs of an allergic reaction are dizziness, confusion and wheezing. This can occur immediately or several hours after receiving Bleomycin and usually only with the first or second dose.</p>	<p>Tell your nurse if this happens while you are receiving Bleomycin or contact your oncologist immediately if this happens after you leave the clinic.</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., TYLENOL®) every 3-4 hours.</li> <li>• Fever which occurs more than a few days after treatment may be the sign of an infection. See details below.</li> </ul>
<p><b>Mouth sores</b> may occur a few days after chemotherapy treatment and may last days or weeks. Mouth sores can occur on the tongue, gums, and the sides of the mouth or in the throat.</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>• Try baking soda mouth rinses (using 1/4 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>.</li> <li>• Tell your doctor about a sore mouth, as your chemotherapy doses may need to be decreased if mouth sores are severe. Call your doctor if you are having difficulty eating or drinking due to pain.</li> </ul>
<p>Fatigue, <b>unusual tiredness</b> or weakness may occur commonly. As the number of treatment cycles increase, fatigue may get worse.</p>	<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>Your Bank of Energy Savings: How People with Cancer Can Handle Fatigue</i>.</li> <li>• Let your doctor or nurse know if you continue to feel more tired than usual.</li> <li>• Your energy level will improve with time after treatment is completed.</li> </ul>

<p><b>Hair loss is common</b> 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.</p>	<ul style="list-style-type: none"> <li>• Use a gentle shampoo and soft brush.</li> <li>• Care should be taken with use of hair spray, bleaches, dyes and perms.</li> <li>• 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.</li> <li>• Cover your head or apply sunblock on sunny days.</li> <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-rimmed hat and glasses.</li> </ul>
<p><b>Loss of appetite</b> and <b>weight loss</b> may occur.</p>	<ul style="list-style-type: none"> <li>• Try the ideas in <i>High Energy High Protein Ideas</i> and in <i>Healthy Eating Using High Energy, High Protein Foods</i>.</li> </ul>
<p><b>Skin rashes</b> may occur.</p>	<p>To help itching:</p> <ul style="list-style-type: none"> <li>• You can use calamine lotion</li> <li>• If very irritating, call your doctor during office hours</li> <li>• Otherwise make sure to mention it at you next visit</li> </ul>
<p><b>Fertility</b> may be affected</p>	<p>If you have any concerns about infertility and sperm banking, please discuss with your physician</p>

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