



**BC Cancer Agency**

## **For the Patient: GEMP**

Other names: BRAVGEMP

**GEM** Gemcitabine(**GEMZAR®**)

**P** Cisplatin

### **Uses:**

- BRAVGEMP is an intravenous drug treatment given as therapy for metastatic breast cancer, in the hope of destroying breast cancer cells that have spread to other parts of your body. This treatment may improve your overall survival and help reduce your symptoms.

### **Treatment Plan:**

- Your treatment plan consists of usually 6 chemotherapy cycles (about 5 months). A cycle length is 3 weeks. Both chemotherapy drugs are given intravenously. For each cycle, you will need to have a blood test before intravenous treatment, and see your oncologist before the cycle. The dose and timing of your chemotherapy may be changed based on your blood counts and/or other side effects. Cisplatin and Gemcitabine will both be given on days 1 and 8, 1 week apart. Both drugs are given over about 30 minutes. Occasionally, your doctor may decide to give you intravenous fluid and/or medications before the chemotherapy.
- You will be given a prescription for anti-nausea drugs to take 30 minutes before the treatment and again about 6-8 hours after, and will usually be on anti-nausea drugs the following 2 days also, each of the treatment weeks.

### **Instructions:**

- 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.
- Drink lots of fluids for the first day or two after each chemotherapy day (at least 6-8 cups a day).
- Other drugs such as some antibiotics given by vein (e.g., tobramycin, vancomycin), and furosemide (LASIX®), phenytoin (DILANTIN®), Warfarin (COUMADIN®), and pyridoxine may **interact** with BRAVGEMP. Tell your cancer doctor if you are taking these 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. If you are admitted to hospital for intravenous antibiotics, make sure the doctor treating you knows that you are receiving Cisplatin.
- You may drink small amounts of alcohol, as it will not affect the safety or usefulness of your treatment.
- Tell other doctors or dentists that you are being treated with BRAVGEMP before you receive any treatment from them.
- If you are still having menstrual periods, BRAVGEMP 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. Even if you have stopped having periods after treatment, if you were fertile prior to chemotherapy, you may be able to conceive a pregnancy. Use birth control (but **not** birth control pills) if you could become pregnant, even if you have stopped menstruating because

### **Serious Risks of Treatment:**

**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 will 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 (eg. 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 it leaks 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 major 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.

**Common chemotherapy side effects and management:**

SIDE EFFECT	MANAGEMENT
<p><b>Nausea and vomiting</b> can occur with Cisplatin or Gemcitabine. 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>A flu-like illness</b> may occur after gemcitabine treatments. You may have fever, chills, headache, muscle and joint aches. These effects usually resolve on their own.</p>	<ul style="list-style-type: none"> <li>• If you feel quite chilled, achy, or uncomfortable, you may take acetaminophen (eg. <b>TYLENOL®</b>) for relief every 4-6 hours if needed, to a maximum of 4 g (4000 mg) per day.</li> <li>• In most cases, symptoms resolve on their own fairly quickly. Contact your cancer clinic if your symptoms seem severe or prolonged.</li> </ul>
<p><b>Hair loss.</b> Hair thinning may occur with both chemotherapy drugs, but total hair loss is unusual.</p>	<p>Refer to the pamphlet <i>For the Patient: Hair loss due to chemotherapy.</i> *</p>
<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 1/2 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>

SIDE EFFECT	MANAGEMENT
<p><b>Fatigue</b> is common especially the first few days after each treatment. As the number of chemotherapy cycles increases, fatigue may get worse or last longer.</p>	<ul style="list-style-type: none"> <li>• Your energy level will improve with time after treatment is completed.</li> <li>• You may obtain a suggestion pamphlet for handling fatigue from nursing staff in your facility</li> </ul>
<p><b>Swelling</b> of hands, feet, or lower legs may occur if your body retains extra fluid.</p>	<p>If swelling is a problem:</p> <ul style="list-style-type: none"> <li>▪ Elevate your feet when resting.</li> <li>▪ Avoid tight clothing.</li> </ul>
<p><b>Diarrhea</b> may occur between treatments.</p>	<p>To help diarrhea:</p> <ul style="list-style-type: none"> <li>• Drink plenty of liquids.</li> <li>• Eat and drink often in small amounts.</li> <li>• You can purchase Loperamide (e.g., IMODIUM®) over the counter if diarrhea is persistent. Don't take this if you have abdominal pain, blood in your stool, or fever. In that case, consult your doctor promptly for tests.</li> </ul> <p>Avoid high fiber foods as outlined in <i>Food Ideas to Help with Diarrhea During Chemotherapy</i>.</p>

\*available through your nurse or nutritionist

\*\* available through your nurse-? odd, no \*\* found in the document, we state Please ask your chemotherapy nurse or pharmacist for a copy. (reasonable to add dietician)

**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  
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