



BC Cancer Agency

For the Patient: GEMD

Other names: BRAVGEMD

GEM Gemcitabine (Gemzar®)

D Docetaxel (Taxotere®)

Uses:

- BRAVGEMD 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. Docetaxel will be given the first of every 21 days, while Gemcitabine will be given on days 1 and 8, 1 week apart.
- You will be asked to take Dexamethasone 8 mg (usually 2 x 4mg pills), twice daily for three days, starting one day prior to each dose of Docetaxel. This medication helps to prevent allergy to Docetaxel and also helps to prevent some of the side effects that might occur after using Docetaxel, such as edema, or limb swelling. You may not need any Dexamethasone the second week, when you receive only Gemcitabine, unless your doctor decides to prescribe it before treatment to prevent mild nausea. Docetaxel is given over about 1 hour, and Gemcitabine will be given over 30 minutes each time.

Instructions:

- If you need an anti-nausea drug, bring your pills with you to take before each treatment. You may also need to take your anti-nausea pills at home after therapy. Nausea, however, is not a frequent problem with this regimen. It is easier to prevent nausea than treat it once it has occurred, so follow directions closely, if you've been prescribed anti-nausea drugs.
- Drink lots of fluids for the first day or two after each chemotherapy day (at least 6-8 cups a day). Check with your doctor or pharmacist before you start taking any new drugs. Other drugs such as Phenytoin (DILANTIN®), Warfarin (COUMADIN®), and Digoxin (LANOXIN®) may interact with BRAVGEMD.
- 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 BRAVGEMD before you receive any treatment from them.
- If you are still having menstrual periods, BRAVGEMD 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 of chemotherapy. Do not breast feed during treatment. Talk to your doctor if you have questions about fertility and birth control after treatment.

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, 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:** Docetaxel 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:** Docetaxel 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. They 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.

Common chemotherapy side effects and management:

SIDE EFFECT	MANAGEMENT
<p>Nausea and vomiting can occasionally occur with either Docetaxel or Gemcitabine. You will likely not need anti-nausea drugs for docetaxel. Your doctor may give you an oral anti-nausea drug or a pretreatment for Gemcitabine in the second week.</p>	<p>Follow the directions on your anti-nausea pill bottles.</p> <ul style="list-style-type: none"> • It is easier to prevent nausea than treat it once it has occurred, so follow directions closely. • If you have a lot of nausea despite your medications, contact your clinic for advice. • Refer to the following pamphlets: <i>For the Patient: Managing Nausea; Chemotherapy & You; Food choices to help control nausea*</i>.
<p>Allergic reactions may occur during or after the administration of Docetaxel. Signs of an allergic reaction are flushing, rash, itching, dizziness, swelling or breathing problems, or sudden chest or back pain.</p>	<ul style="list-style-type: none"> • Dexamethasone is used to help prevent allergic reactions. Doses of anti-allergic medications may be given if you have an allergic reaction despite this. • Your nurse will check your heart rate (pulse) and blood pressure if needed. • Tell your nurse or doctor <i>immediately</i> if you have any sign of an allergic reaction
<p>Flu-like reaction may occur after gemcitabine treatments.</p>	<ul style="list-style-type: none"> • If you feel quite chilled, achy, or uncomfortable, you may take acetaminophen (eg. TYLENOL®) for relief every 4-6 hours if needed, to a maximum of 4 g (4000 mg) per day. • relief. In most cases, symptoms resolve on their own fairly quickly. Contact your cancer clinic if your symptoms seem severe or prolonged.
<p>Hair loss. Your hair will fall out 2-4 weeks after Docetaxel treatment begins. Your scalp may feel tender. You may lose hair on your face and body. In most cases, your hair will grow back once your chemotherapy treatments are over and sometimes between treatments. Rarely, hair may not grow back for more than two years. The colour and texture of the new hair growth may be different.</p>	<p>Refer to the pamphlet <i>For the Patient: Hair loss due to chemotherapy.*</i> You may also want to:</p> <ul style="list-style-type: none"> • 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.
<p>Mouth sores 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"> • 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. • 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>. • 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.

SIDE EFFECT	MANAGEMENT
<p>Fatigue is common especially in the first week after your treatment starts. As the number of chemotherapy cycles increases, fatigue may get worse or last longer.</p>	<ul style="list-style-type: none"> Your energy level will improve with time after treatment is completed. Try the ideas in <i>Your Bank of Energy Savings: How People with Cancer Can Handle Fatigue</i>.*
<p>Nail changes such as change in colour may occur. Rarely, nails will loosen or fall off, or the nailbeds will be painful.</p>	<ul style="list-style-type: none"> You may be given frozen gloves to wear on your hands during your treatment to help prevent nail changes. You may take acetaminophen (e.g. TYLENOL®) up to every 4 hours if nails are painful to a maximum of 4 g (4000 mg) per day
<p>Pain affecting joints or muscles may occur for a few days after docetaxel. After you stop chemotherapy altogether, you may also feel increased joint aching or stiffness for a few months.</p>	<ul style="list-style-type: none"> You may take acetaminophen (e.g., TYLENOL®) every 4-6 hours to a maximum of 4 g (4000 mg) per day for mild to moderate pain. If you need to take ibuprofen (e.g., ADVIL®) or ASA, please let your doctor know at your next visit. Contact your cancer doctor if your pain is severe. Your family doctor can help you to manage symptoms of joint pain after chemotherapy.
<p>Diarrhea may occur between treatments.</p>	<p>To help diarrhea:</p> <ul style="list-style-type: none"> Drink plenty of liquids. Eat and drink often in small amounts. 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. <p>Avoid high fiber foods as outlined in <i>Food Ideas to Help with Diarrhea During Chemotherapy</i>.</p>
<p>Fluid retention may occur after the administration of Docetaxel. Signs of extra fluid build-up are swelling of feet, hands or belly; breathing problems; cough or rapid weight gain. This is unlikely to develop after only 3 treatments.</p>	<ul style="list-style-type: none"> Take your dexamethasone tablets as directed by doctor, pharmacist or nurse, to try to prevent edema. This is usually taken twice a day with food (breakfast and supper) starting the day before your treatment. Tell your doctor at your next visit if you notice swelling. Elevate your feet when sitting. Avoid tight clothing.

*available through your nurse or nutritionist

** available through your nurse

Side effects of the dexamethasone premedication and management:

SIDE EFFECTS	MANAGEMENT
<p>Heartburn may occur. There may be an increased risk of stomach problems such as bleeding ulcers especially if you have had stomach problems before.</p>	<ul style="list-style-type: none"> • Take your dexamethasone after eating. • Take antacids one hour before or two hours after dexamethasone. Antacids can reduce the amount of dexamethasone absorbed when taken at the same time. • For minor pain, take acetaminophen (e.g., TYLENOL®). Avoid ASA (eg, ASPIRIN®) or ibuprofen (eg, ADVIL®) which can increase the risk of stomach problems.
<p>Blood sugar may be elevated, especially in diabetics.</p>	<ul style="list-style-type: none"> • Check your blood sugar regularly if you are diabetic. • If you have an unexpected degree of thirst and have to urinate very frequently, you should contact your clinic to get your blood sugar tested.
<p>You may have difficulty in falling asleep on the days you take dexamethasone.</p>	<p>Mild exercise before bed (such as a walk around the block) may help.</p>
<p>Swelling of hands, feet or lower legs may occur if your body retains extra fluid.</p>	<ul style="list-style-type: none"> • Elevate your feet when sitting. • Avoid tight clothing. • Avoid food with high in salt or sodium.
<p>You may have mood changes.</p>	<p>Discuss your symptoms with your doctor as it may be drug related.</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 _____