

## For the Patient: GIFFIRB

Other Names: Palliative chemotherapy for metastatic colon or rectal cancer using Irinotecan, Fluorouracil, Folinic Acid (leucovorin) and Bevacizumab

**GI** = GastroIntestinal

**FFIRB** = Fluorouacil, Folinic Acid (leucovorin), **I**rinotecan, **B**evacizumab

## ABOUT THIS MEDICATION

### What are these drugs used for?

- Irinotecan, fluorouracil (5FU), leucovorin and bevacizumab are drugs given to treat colon or rectal cancer.

### How do these drugs work?

- Irinotecan and fluorouracil work by interfering with dividing cells and preventing an increase in the number of cancer cells.
- Leucovorin works by enhancing the effect of fluorouracil and strengthening fluorouracil's ability to reduce the number of cancer cells.
- Bevacizumab is a monoclonal antibody, which is a type of protein designed to target and interfere with the growth of blood vessels.

## 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 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?

- Irinotecan, fluorouracil, leucovorin and bevacizumab are all given directly into the vein (IV).
- You will receive irinotecan, fluorouracil, leucovorin and bevacizumab at the clinic by a chemotherapy nurse on the first day of treatment for **one day only**. You will then be given an additional dose of fluorouracil **over 46 hours**, or 2 days, using a disposable infusion device called an INFUSOR® or “baby bottle”. The infusion device delivers the fluorouracil slowly and continuously to your body over the 46 hour time period. Please see a copy of “Your INFUSOR® - A Guide for Patients”, available through your chemotherapy nurse.
- The infusion device is connected to your veins by either a peripherally inserted central catheter (PICC Line) or a PORT-A-CATH®. If using a PICC line, this is inserted in your upper arm. If using a PORT-A-CATH®, this is inserted under the skin of the chest using local freezing. The insertion would be done before your treatment starts and would be removed once the treatment program is finished.

- The chemotherapy nurse will connect the infusion device to your IV site at the clinic and then you can go home while your treatment is delivered over the 2 days. You may return to the clinic after 2 days for the nurse to disconnect the infusion device, or you will be instructed how to disconnect yourself at home. Some people may be instructed to go to their local hospital to be disconnected, or may have a home care nurse provide this service, if available. You will then have a 12 day rest period.
- This two week period of time is called a “cycle”. The cycles are repeated as long as you are benefiting from chemotherapy, and not having too many side effects, as determined by your oncologist.
- Each treatment will take **about 4 hours**. This includes a dressing change if you have a PICC line. If you have a PORT-A-CATH®, a dressing change is not needed, so your treatment will take less time. Your first treatment will probably take longer, as the nurse will review information on the chemotherapy drugs and infusion device with you.

**The calendar below shows how the medications are given each 2 week cycle.**

C Y C L E	DATE	TREATMENT PLAN
	1	
		Week 2 → no treatment

C Y C L E	DATE	TREATMENT PLAN
	2	
		Week 2 → no treatment

**Treatment is continued as long as you are benefiting from treatment and not having too many side effects.**

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

- A **blood test** is done each cycle, on or before the first day of each treatment cycle. Your **blood pressure** will be checked by a nurse before each treatment and a **urine test** will be done before each 2<sup>nd</sup> treatment, on even numbered cycles. The dose and timing of your chemotherapy may be changed based on your blood counts and/or other side effects.

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

Unexpected and unlikely side effects can occur with any drug treatment. The ones listed below are particularly important for you to be aware of as they are directly related to the common actions of the drugs in your treatment plan.

Your doctor will review the risks of treatment and possible side effects with you before starting treatment. The chemotherapy nurse will review possible side effects of irinotecan, fluorouracil, leucovorin and bevacizumab, and how to manage those side effects with you on the day you receive your first treatment.

<b>SERIOUS SIDE EFFECTS DURING TREATMENT</b>	<b>MANAGEMENT</b>
<p><b>Allergic reactions</b> may very rarely occur. Signs of an allergic reaction are dizziness, feeling faint, confusion, shortness of breath, and wheezing. This may occur immediately or several hours after receiving the drugs. It can occur after the first dose, or after many doses.</p>	<p>Tell your nurse if this happens while you are receiving the drugs or contact your doctor immediately if this happens after you leave the clinic.</p>
<p>Fluorouracil <b>burns</b> if it leaks under the skin.</p>	<p>Tell your nurse or doctor immediately if you feel burning, stinging, or any other change while the drug is being given.</p>
<p><b>Nausea and vomiting</b> may occur after your treatment and may last for 24- 48 hours. Some people have little or no nausea.</p>	<p>You may be given a prescription for an 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.</p> <ul style="list-style-type: none"> <li>• Drink plenty of liquids.</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><b>Early diarrhea</b> may occur very commonly during or shortly after an irinotecan treatment (within 24 hours). It starts with watery eyes, stomach cramps and sweating.</p>	<ul style="list-style-type: none"> <li>• Tell your nurse or doctor immediately if you have watery eyes, stomach cramps or sweating during or after your treatment.</li> <li>• Early diarrhea is treated with a medication called atropine, which is injected into a vein or under your skin. If your cancer centre is closed, your cancer doctor may tell you to go to your Hospital emergency for atropine treatment.</li> </ul>

SERIOUS SIDE EFFECTS DURING TREATMENT	MANAGEMENT
<p><b>Late diarrhea</b> may occur very commonly one day to several days after an irinotecan treatment. It starts with stools more loose or often than usual.</p>	<p><b>Late diarrhea must be treated immediately with loperamide 2 mg tablets (e.g. IMODIUM®):</b></p> <ul style="list-style-type: none"> <li>• Take <b><u>TWO tablets</u></b> at the first sign of loose or more frequent stools than usual.</li> <li>• Then take <b><u>ONE tablet every TWO hours</u></b> until diarrhea has stopped for 12 hours.</li> <li>• At night, you may take <b><u>TWO tablets every FOUR hours</u></b> (set your alarm) during the time you usually sleep.</li> <li>• <b>This dose is much higher than the package directions. It is very important that you take this higher dose to stop the diarrhea.</b></li> <li>• Always keep a supply of loperamide (e.g. have 48 tablets on hand). You can buy loperamide at any pharmacy without a prescription.</li> </ul> <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>• Avoid high fibre foods as outlined in <i>Food Choices to Help Manage Diarrhea*</i></li> <li>• A dietitian can give you more suggestions for dealing with diarrhea.</li> </ul> <p>If diarrhea does not improve 24 hours after starting loperamide or lasts more than 36 hours, call your doctor.</p>
<p><b>Sore mouth</b> may occur commonly during 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 ½ teaspoon baking soda or salt in 1 cup warm water and rinse several times a day.</li> <li>• Try soft, bland foods like puddings, milkshakes and cream soups.</li> <li>• Avoid spicy, crunchy or acidic food, and very hot or cold foods.</li> <li>• Try ideas in <i>Food Ideas to Try with a Sore Mouth*</i></li> </ul>

SERIOUS SIDE EFFECTS DURING TREATMENT	MANAGEMENT
<p>Your <b>white blood cells</b> will decrease 1-2 weeks after your treatment. They usually return to normal 3 weeks 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>• Take care of your skin and mouth.</li> <li>• Call your doctor <b>immediately</b> 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.</li> </ul>
<p>Your <b>blood pressure</b> may rise during treatment. This is common.</p>	<p>The chemotherapy nurse will check your blood pressure before each chemotherapy treatment to make sure it is within a range acceptable for treatment. If too high, you may be given medication to lower your blood pressure, or your treatment may be stopped.</p>
<p><b>Blood clots</b> may rarely occur, usually in the leg. This is more likely to happen if you have had blood clots before. Signs to watch for include tenderness or hardness over a vein, calf tenderness, sudden onset of cough, chest pain, or shortness of breath. Stroke is also a rare event. Signs of a stroke include sudden severe headache, eyesight changes, slurred speech, loss of coordination, and weakness or numbness in arm or leg.</p>	<p>Tell your doctor if you have ever had treatment for a blood clot.</p> <p>To help prevent blood clots:</p> <ul style="list-style-type: none"> <li>• Keep active.</li> <li>• Drink plenty of fluids.</li> <li>• Avoid tight clothing.</li> <li>• Do not sit with your legs crossed at the knees for long periods of time.</li> </ul> <p>If you suspect you are experiencing a blood clot or stroke, see your doctor or seek emergency help immediately.</p>

OTHER SIDE EFFECTS DURING TREATMENT	MANAGEMENT
<p><b>Pain or tenderness</b> may occur where the needle was placed.</p>	<ul style="list-style-type: none"> <li>• Apply cool compresses or soak in cool water for 15-20 mins. several times a day.</li> </ul>

OTHER SIDE EFFECTS DURING TREATMENT	MANAGEMENT
<p>Your platelets may decrease during or after your treatment. They will 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, but occasional use of ibuprofen may be acceptable.</li> </ul>
<p><b>Constipation</b> may occur.</p>	<p>To help constipation:</p> <ul style="list-style-type: none"> <li>• Exercise if you can.</li> <li>• Drink plenty of fluids (8 cups a day).</li> <li>• Try ideas in <i>Food Choices to Manage Constipation*</i>.</li> </ul>
<p>Minor bleeding, such as <b>nosebleeds</b>, may commonly occur.</p>	<ul style="list-style-type: none"> <li>• Sit up straight and tip your head slightly forward. Tilting your head back may cause blood to run down your throat.</li> <li>• Pinch your nostrils shut between your thumb and forefinger or apply firm pressure against the bleeding nostril for 10 full minutes.</li> <li>• After 10 minutes, check to see if your nose is still bleeding. If it is, hold it for 10 more minutes.</li> <li>• Stay quiet for a few hours and do not blow your nose for at least 12 hours after the bleeding has stopped.</li> <li>• Get emergency help if a nosebleed lasts longer than 20 minutes.</li> </ul>
<p><b>Skin rashes</b> are uncommon but 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 mention it at your next visit.</li> </ul>

OTHER SIDE EFFECTS DURING TREATMENT	MANAGEMENT
Your <b>skin may sunburn</b> easily.	To help prevent sunburn: <ul style="list-style-type: none"> <li>• Avoid direct sunlight.</li> <li>• Wear a hat, long sleeves and long pants or skirt outside on sunny days.</li> <li>• Apply a sun block lotion with an SPF (sun protection factor) of at least 30.</li> <li>• Refer to <i>Your Medication Sun Sensitivity and Sunscreens*</i> or the BC Health Guide for more information.</li> <li>• After sun exposure, if you have a severe sunburn or skin reaction such as itching, rash, or swelling, contact your doctor.</li> </ul>
<b>Loss of appetite</b> is uncommon but may occur and may persist long after discontinuation of fluorouracil.	Try the ideas in <i>Food Ideas to Help with Decreased Appetite*</i>
<b>Tiredness and lack of energy</b> 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 the handout titled <i>Fatigue/Tiredness*</i></li> </ul>
<b>Hair loss is common</b> with irinotecan 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 changes.	<ul style="list-style-type: none"> <li>• Use a gentle shampoo and soft brush.</li> <li>• Care should be taken with 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>

**\*Please ask your chemotherapy nurse, pharmacist or dietitian for a copy.**

**Special notes:**

**Heart Problems:** Serious heart problems can occur when starting fluorouracil. These can rarely be fatal. Problems such as chest pain, heart attack, abnormal heart rhythm, or heart failure can occur. Having a history of heart problems with capecitabine, a related chemotherapy drug, is a risk factor, as is having a history of prior angina (heart pain) or heart attack. Seek medical attention promptly if you experience feelings of heavy pressure or pain in the chest, trouble breathing, significant worsening leg swelling, or marked lightheadedness. These symptoms can occur within days after starting fluorouracil. If your symptoms are severe, you may need to call for emergency help.

**Wound Healing:** Bevacizumab may slow the healing process when recovering from surgery. See the instructions below under “Instructions for Patient” to prevent any problems with wound healing after surgery.

**Bowel Perforation,** a small hole in the wall of part of your intestine, can rarely occur with Bevacizumab. Symptoms may include sudden abdominal pain or tenderness, sometimes with constipation and vomiting.

## **INSTRUCTIONS FOR THE PATIENT**

- Tell your doctor if you have ever had an unusual or **allergic reaction** to fluorouracil (5 FU, ADRUCIL®), capecitabine (XELODA®) or leucovorin before receiving treatment.
- If you are planning to have **surgery**, bevacizumab may be stopped approximately 4 weeks before surgery and not restarted until approximately 4 weeks after surgery and only if the surgical wound is well healed. This helps to lower the risk of bleeding and may prevent problems with wound healing after surgery.
- The drinking of alcohol (in small amounts) does not appear to affect the safety or usefulness of irinotecan, fluorouracil, leucovorin or bevacizumab.
- Fluorouracil may cause **sterility** in men and **menopause** in women. If you plan to have children, discuss this with your doctor before being treated with fluorouracil.
- Irinotecan and fluorouracil may damage sperm in males. Irinotecan, fluorouracil and bevacizumab may harm the baby if used during pregnancy. It is best to **use birth control** while being treated with these drugs, and for six months after your last treatment. Tell your doctor right away if you or your partner becomes pregnant. Do not breast feed during treatment.
- **Tell** doctors, dentists, and other health professionals that you are being treated with irinotecan, fluorouracil and bevacizumab before you receive any treatment from them.

## **Medication Interactions**

Other drugs may interact with leucovorin. Other drugs such as warfarin (COUMADIN®), phenytoin (DILANTIN®) and fosphenytoin (CEREBYX®) may **interact with fluorouracil**. Drugs such as laxatives, seizure medications, St. John’s Wort, dexamethasone or prochlorperazine may **interact with irinotecan**.

- Dexamethasone can be taken as an anti-nausea drug. Discuss with your cancer doctor if you are taking dexamethasone on a daily basis.
- Prochlorperazine should not be taken as an anti-nausea drug on the day of your irinotecan treatment.

Tell your doctor if you are taking this or any other drugs as you may need extra blood test or your dose may need to be changed. Check with your doctor or pharmacist before you start taking any new drugs.

## **THE FOLLOWING INFORMATION IS VERY IMPORTANT**

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

- Signs of an **allergic reaction** (rare) soon after a treatment including dizziness, fast heart beat, face swelling or breathing problems.



- **Diarrhea** that occurs within the first 24 hours after irinotecan treatment.
- Signs of **severe fluid loss** due to diarrhea such as fainting, light-headedness or dizziness.
- 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 an **infection** such as fever (over 100°F or 38°C by an oral thermometer); chills, cough, pain or burning when you pass urine
- Signs of **bleeding problems** such as black, tarry stools, blood in urine, pinpoint red spots on skin, extensive bruising.
- 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 ankles, or fainting.
- Persistent bleeding, such as **nosebleeds** lasting more than 20 minutes.
- Sudden **abdominal pain** or tenderness.
- Severe **headache** that persists or is associated with vomiting, confusion or visual changes.
- **Seizures** or **loss of consciousness** with or without **confusion, headache, or changes in eyesight.**
- **Uncontrolled nausea, vomiting, or diarrhea.**

**SEE YOUR DOCTOR AS SOON AS POSSIBLE (during Office Hours) IF YOU HAVE:**

- **Severe diarrhea** that occurs after the first 24 hours and does not improve 24 hours after starting loperamide or lasts more than 36 hours.
- **Painful hand-foot skin reaction** such as painful redness, peeling, tingling, numbness, swelling or blistering of the palms of your hands and/or the bottoms of your feet.
- 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 swelling of feet or lower legs.
- **Severe skin irritation.**
- **Sores** that do not heal or are slow to heal.
- Changes in **eyesight**

**CHECK WITH YOUR DOCTOR IF ANY OF THE FOLLOWING CONTINUE OR BOTHER YOU:**

- Painless hand-foot skin reaction such as redness, peeling, tingling, numbness, swelling, or blistering of the palms of your hands and/or bottoms of your feet.
- Easy bruising or minor bleeding.
- Redness, swelling, pain, or sores where the needle was placed.
- Redness, swelling, pain, or sores on your lips, tongue, mouth, or throat.
- Heartburn; mild to moderate abdominal or stomach pain.
- Dizziness or trouble walking.
- Trouble sleeping.
- Eye irritation or changes in eyesight.
- Skin rash or itching.

**If you experience symptoms or changes in your body that have not been described above but worry you, or in any symptoms are severe, contact:**

\_\_\_\_\_ at telephone number: \_\_\_\_\_