

For the Patient: GUFUPRT

Other Names: Combined Modality Therapy for Squamous Cell Cancer of the Genitourinary System Using Fluorouracil and Cisplatin with Radiation

GU = **GenitoUrinary** (tumor group)

FU = **Fluorouracil**

P = **Platinum** (Cisplatin)

RT = **Radiation Therapy**

ABOUT THIS MEDICATION

What are these drugs used for?

- Cisplatin and Fluorouracil are intravenous drug treatments given with radiation as therapy to treat some types of advanced genitourinary cancer.

How do these drugs work?

- Cisplatin and Fluorouracil work by interfering with the genetic material of replicating cells and preventing an increase in the number of cancer cells.
- Cisplatin also has radiosensitizing properties, therefore when combining it with radiation it allows for increased effectiveness of treatment (radiosensitizer).

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?

- Cisplatin will be given intravenously (via the vein) daily for 3 days.
- You will receive **fluorouracil** at the clinic by the chemotherapy nurse on **days 1 and 3** of your 4 day treatment schedule, after receiving the cisplatin. The fluorouracil is given using TWO disposable infusion devices called an INFUSOR® or “baby bottle”. Each infusion device delivers the fluorouracil slowly and continuously to your body over 48 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 several days 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. When you have received your daily cisplatin dose, and when your radiation treatment is over, you can go home while your **FIRST** fluorouracil infusion device

delivers treatment over the 48 hours. You will return to clinic on day 3. The **SECOND** infusion device will be connected to your IV site by the chemotherapy nurse. You can go home while your fluorouracil treatment is delivered over the next 48 hours. Total time period of IV fluorouracil infusion is 96 hours or 4 days. You may return to the clinic after 4 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.

- Each connection will take about **1 hour**. 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.
- If your doctor decides to delay or stop your fluorouracil during radiation therapy due to side effects of the drug, your radiation will continue.
- Both drugs will be given every 28 days for 4-6 cycles (i.e. 4-6 months). The days when you are receiving these medications, together with the days-off after them, may be referred to as a “cycle”.
- Radiation therapy will start after the Cisplatin infusion is given. Radiation will be provided during one of your cycles of chemotherapy.

Treatment for Cycles 1-6:	Day 1	Day 2	Day 3	Day 4
Cisplatin	X	X	X	
Fluorouracil	X	X	X	X
Radiation	X *			

*Radiation therapy to be initiated by the Radiation Oncologist during one of the cycles of chemotherapy.

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 medications (to be filled at your regular pharmacy). Please bring your anti-nausea medications with you to each treatment. Your nurse will tell you when to take the anti-nausea medication(s). You may also need to take your anti-nausea drugs at home after treatment. It is easier to prevent nausea than to treat it once it happens, so follow directions closely.
- 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 and Fluorouracil 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 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:

<i>SIDE EFFECT</i>	<i>MANAGEMENT</i>
<i>Nausea and vomiting</i> can occur with Cisplatin. You will need anti-nausea drugs for Cisplatin each week of treatment.	Follow the directions on your anti-nausea pill bottles. <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>.
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.	<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 1/4 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>. • 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.
Fatigue, unusual tiredness or weakness may occur commonly. As the number of treatment cycles increase, fatigue may get worse.	<ul style="list-style-type: none"> • Do not drive a car or operate machinery if you are feeling tired. • Try the ideas in <i>Your Bank of Energy Savings: How People with Cancer Can Handle Fatigue.**</i> • Let your doctor or nurse know if you continue to feel more tired than usual. • Your energy level will improve with time after treatment is completed.
Hair loss sometimes occurs with fluorouracil. Your hair will grow back once you stop treatment with fluorouracil. Colour and texture may change.	<ul style="list-style-type: none"> • Use a gentle shampoo and soft brush. • Care should be taken with use of hair spray, bleaches, dyes and perms.

<i>SIDE EFFECT</i>	<i>MANAGEMENT</i>
Your skin may sunburn easily.	<p>To help prevent sunburn:</p> <ul style="list-style-type: none"> • Avoid direct sunlight and tanning salons. • Wear a hat, long sleeves, and long pants or skirt outside on sunny days. • Wear a sunscreen that blocks both UVA and UVB and has a sun protection factor (SPF) of at least 30. Apply liberally, 30 minutes before exposure. Reapply every 2 hours and after swimming. • Consult the <i>BC Health Guide</i> or your community pharmacist for more information.
Skin rashes may occur.	<p>To help itching:</p> <ul style="list-style-type: none"> • You can use calamine lotion. • If very irritating, call your doctor during office hours. • Otherwise make sure to mention it at your next visit.

Common radiation side effects and management:

Acute (during and shortly after radiation), and **chronic** (long term) side effects of radiation vary in intensity and frequency depending on an individual's other health problems, and with the size of the radiation field.

Common acute side effects may include but not be limited to skin irritation, fatigue, nausea, diarrhea, cramping, frequency of urination, burning on urination, frequency of bowel movements, burning with bowel movements, and potentially bloody stool or mucus discharge from the rectum. While the symptoms resolve after irradiation for the majority of patients, some (about 30%) have persisting mild irritative symptoms after radiation.

Late side effects occur in 5 to 10% of patients, and may require surgery or medical treatments or lead difficulty completing daily activities. These long term sided effects may include but not be limited to very frequent (less than every 1 hour) daily or nighttime urination, bleeding from the bladder, bleeding from the rectum, bowel obstruction, or incontinence of stool or urine.

<i>SIDE EFFECT</i>	<i>MANAGEMENT</i>
<p>Skin irritation may occur while receiving radiation therapy, since all radiation must pass through your skin. The side effects will vary depending on amount of radiation given, the area of the body treated, the size of the treatment area, and whether chemotherapy has been previously administered. Skin may feel warm and sensitive and color may change.</p>	<ul style="list-style-type: none"> • Bathe using lukewarm water and mild, unscented soap (examples of suitable products: DOVE®, NEUTROGENA®, IVORY®). Pat skin dry with a soft towel. • Wear loose, comfortable clothing. • Protect skin from direct sun light and wind. • Avoid deodorants, perfume, alcohol, astringents and adhesives. • Gently apply non-scented, water-based cream or lotion with your hands (examples of suitable products: GLAXAL BASE®, LUBRIDERM®, KERI LOTION®). Be careful not to remove the skin marks placed by the Radiation Therapists.
<p>Diarrhea may occur.</p>	<p>To help diarrhea:</p> <ul style="list-style-type: none"> • Drink plenty of liquids. • Eat and drink often in small amounts. • Eat low fibre foods & avoid high fibre foods as outlined in <i>Food Ideas to Help Manage Diarrhea*</i> <p>If you have an increase of less than 4 stools per day more than normal, or a mild increase in ostomy output, start the following:</p> <ul style="list-style-type: none"> • Loperamide (IMODIUM®) 2 mg, take 2 tablets (4 mg) to start, followed by 1 tablet (2 mg) every 4 hours, or after each unformed stool to a maximum of 8 tablets (16 mg) daily, unless otherwise directed by a physician

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

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 _____