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TIPS FOR COPING WITH SIDE EFFECTS

It is important to know that everyone responds differently to treatment – even if it is the same treatment. Side effects have NOTHING to do with whether or not chemotherapy or radiation therapy is working.

Most teens who have received chemotherapy/radiation therapy will tell you that while they were undergoing treatments, they felt tired, didn't have a lot of energy, and didn't feel like eating. That's OK and very normal. It is also very temporary. Side effects can occur at different points in your treatment cycle. For example, nausea, and vomiting are more immediate and usually occur during the actual treatment. Other side effects like low blood counts, and mouth sores tend to happen about a week or so after treatment when the effects of chemotherapy are the strongest in your body. Still other effects, such as tingling in hands and feet, can happen more slowly over time and treatment cycles. The majority of all of these side effects are temporary and you will feel like yourself again once treatment is over.

So, rest, take care of yourself, and use these tips to help make things easier!

Tips for Avoiding Infection

1. Wash your hands before meals and after using the bathroom! Use liquid soap and warm water, lather well, and rub all parts of your hands. Make sure that everyone who examines you in the hospital washes his/her hands!
2. Avoid being close to people with colds, or anyone who is sick.
3. Eat a healthy diet – lots of protein and calories.
4. Avoid fresh fruits and vegetables (unless they can be peeled), when your ANC is less than 500.
5. Get plenty of rest.
6. Do not clean any bird cages or cat litter boxes. Animal droppings can be a source of fungal infections.
7. Keep your skin moist with lotion, especially in the cold, to prevent breaks in the skin that could get infected. If cuts do occur, wash them with liquid soap and water, apply anti-bacterial ointment, and cover with a small bandage.
8. Try hard not to bite your nails.
9. Brush your teeth after every meal and at bedtime with a SOFT toothbrush. If you notice any sores or white patches in your mouth or on your lips, report this to your nurse or oncologist. When your ANC is less than 500 and/or your platelets are less than 20,000, daily care should include using a moist gauze or toothette to rub gently over teeth and gums.
10. Call your nurse or oncologist IMMEDIATELY if you develop a fever higher than 100.4° F (38° C), or if you have any signs of an infection such as: redness, swelling, or tenderness in any area of your body.

11. Notify your nurse or oncologist if you have any burning, or itching, when you pee.
12. NEVER use a rectal thermometer or suppositories – they can cause cuts, which can increase your risk for infection and bleeding.
13. Tell your primary doctor to check with your oncologist before giving vaccines to you or to any of your siblings.
14. Don't get any body piercing or tattoos while undergoing treatment.
15. If you are sexually active, you should know that deep kissing can spread infections, and if you have intercourse, you should definitely use "safe sex" rules. Not having sex would be the best, especially if you are in active treatment. You should definitely talk to your oncologist or nurse about what is safe for you!

Don't get discouraged if you follow all these tips and still develop an infection. Your body is very weak after receiving chemo. Most infections in cancer patients occur from the germs within the body when your counts are low. However, it is still really important to follow the tips from the Advisor.

Tips for Feeling Better When You Are Anemic

1. Get plenty of rest.
2. Avoid overdoing it – have friends come over to visit, talk on the phone, or chat via e-mail.
3. Eat foods high in iron: lean red meat, tofu, dried beans and peas, lentils, white beans, spinach, or cereal high in iron.
4. Pursue your hobbies and activities as you are able. If you are too tired and weak to play basketball, go to the game, cheer with your team, or simply help keep score.
5. Avoid excessive exercise such as heavy weightlifting, or contact sports like football.

Tips for Low Platelets

1. Avoid contact sports or activities where injury often occurs.
2. Check your mouth and gums daily for bleeding. If your gums do bleed, don't use a toothbrush, water pik, or put any sharp objects in your mouth. Your oncologist may prescribe a mouth rinse to help keep your breath fresh and your mouth clean.
3. Let your oncologist know if you see any blood in your pee or poop. This may be embarrassing, but please don't let that ever stop you from letting someone know! After a while, you'll get used to talking about all your body fluids.
4. One more thing about the poop issue: Don't strain to move those bowels. If you are constipated (difficulty pooping), tell your oncologist. There are things to take, like stool softeners, to make life easier at that end.

5. Girls - tell your oncologist if you have more bleeding than usual during your periods or if they last more days than usual.
6. ALCOHOLIC BEVERAGES CAN CAUSE A BLEEDING IN THE DIGESTIVE TRACT AND SHOULD NOT BE TAKEN!!!
7. If there is a need to shave, use an electric razor to avoid cuts in the skin.
8. If you get a bloody nose, lean slightly forward, and gently pinch your nostrils across the bridge of your nose. You can also apply a small wad of moist cotton into the side of the nostril that is bleeding and then squeeze both nostrils together. If you are still bleeding after ten minutes, call your oncologist.
9. Always check with your oncologist before taking any medication.
10. Never take aspirin, or ibuprofen, because they can prolong bleeding.
11. Don't get any body piercing or tattoos while you're under treatment.
12. If you are sexually active, you should know that deep kissing can spread infections, and if you have intercourse, you should definitely use 'safe sex' rules. Not having sex would be the best, especially if you are in active treatment. You should definitely talk to your oncologist or nurse about what is safe for you!

Taste Changes

Chemo can cause your taste to change: food may taste more salty, bitter, or even metallic. Normal taste will come back after chemo treatment finishes.

Helpful Tips for Taste Changes:

1. Eat only foods you like, and ignore those that do not appeal to you.
2. Flavor your cooking with seasonings and herbs.
3. Some people find that cold foods taste better than hot foods.
4. Fresh fruits leave a refreshing taste in your mouth.

Tips to Help Prevent or Decrease Nausea/Vomiting

1. Eat small frequent meals rather than 3 large meals.
2. Sip small amounts of cool liquids continuously. Colas, ginger-ale, apple juice, and sports drinks are good.
3. Avoid fried, spicy, or rich foods, especially right before you begin treatment.
4. Eat dry foods such as pretzels, toast, or crackers when feeling nauseous.
5. Keep your head elevated after eating. Lying down flat can cause nausea.
6. Watch for signs of dehydration if you start to vomit: dry sticky mouth, decreased urination, dizziness. Call your oncologist immediately.
7. Use distractions such as TV, videos, games, the phone, or music.
8. If you develop a metallic taste in your mouth, chewing gum and sucking on popsicles or a piece of hard candy in your mouth may help.
9. If you vomit, rinse out your mouth.

10. Don't be afraid to ask for anti-nausea medication.

How to Survive Those Last Hair Days

1. Decide whether you want to wear hats, scarves, bandanas, or wigs, or whether you just want to "go bald".
2. When your hair starts thinning, use a soft-bristled hairbrush.
3. When your hair becomes thin, use a mild shampoo.
4. Try to meet other teens who have finished treatment so you can see for yourself that hair loss is truly temporary!
5. Talk to your social worker who can help you to get wigs, hats, scarves, bandanas, or other headgear.
6. Cover your pillow with a small blanket so that it's easier to collect your hair when it's falling out.
7. Consider cutting your hair shorter before you hair starts to fall out.

The most important thing to remember is that **YOUR HAIR WILL GROW BACK!**

DRUG FACT SHEETS

BLEOMYCIN (Blenoxane)

Type of Drug: Anti-tumor Antibiotic

How is it Given?

- Intravenous (IV) - into a vein or central line
- Intramuscular (IM)

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Fever and chills
- Skin changes: darkening or thickening of skin, peeling of hands and soles of feet, itchy rash
- Nail changes: darkening or ridged nail beds
- Mouth sores
- Coughing or shortness of breath (after several treatments)
- Loss of appetite

Less Common Side Effects:

- Nausea/Vomiting
- Hair loss
- Lung changes (scarring and stiffening)
- Sensitivity of skin to sunlight
- Dizziness

Note:

- Since this medicine may cause lung problems, your lung function will be tested before starting this medicine and at certain times during and after treatment. These lung tests are called Pulmonary Function Tests (PFTs) and are explained in the *Tests, Tests, and More Tests* section.

CARBOPLATIN (Paraplatin, CBDCA)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does It Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts (especially platelets and white blood cells)
- Nausea/vomiting

Less Common Side Effects:

- Diarrhea or constipation
- Metal taste in mouth
- Loss of appetite
- Numbness or 'pins and needles' sensation in hands and/or feet
- Skin rash or itching
- Hearing loss or ringing in ears (at high doses)
- Hair loss
- Low levels of electrolytes: potassium, calcium, sodium, and magnesium
- Kidney problems (if receiving high doses)

Note:

- Since this medicine may cause hearing loss, a hearing test will be done before you begin this medicine and at certain times during and after you begin treatment. Learn more about this under Audiogram in the *Tests, Tests, and More Tests* section.

CARMUSTINE (BCNU, BiCNU)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts (usually 4-6 weeks after treatment)
- Nausea/Vomiting (usually begins about 2 hours into treatment and lasts 4-6 hours)
- Facial flushing or redness during infusion
- Pain or burning at injection site

Less Common Side Effects:

- Lung problems (scarring and stiffening of lungs)
- Abnormal liver and kidney function tests
- Loss of appetite
- Diarrhea
- Dizziness
- Tiredness
- Skin rash or itching
- Mouth sores

Note:

- Since this medicine may cause lung problems, your lung function will be tested before starting this medicine and at certain times during and after treatment. These lung tests are called Pulmonary Function Tests (PFTs) and are explained in the *Tests, Tests, and More Tests* section.
- Your kidney and liver function will be monitored through blood tests.

CISPLATIN (Platinol, Cis-Platinum, CDDP)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting, loss of appetite
- Kidney damage
- Hearing Loss (mostly in the higher tones)
- Low levels of electrolytes: Magnesium, sodium, calcium, potassium (may be seen up to days after treatment)
- Joint pain (related to abnormal electrolytes)

Less Common Side Effects:

- Numbness in fingers and toes
- Cough or hoarseness
- Diarrhea
- Allergic reaction (rare) – signs include skin rash, itching, fever, chills, headache, anxiety. Tell your doctor or nurse immediately!
- Seizures (rare)

Note:

- Since this medicine may cause hearing lost, a hearing test will be done before you begin this medicine and at certain times during and after you begin treatment. Learn more about this under Audiogram in the *Tests, Tests, and More Tests* section.
- Your electrolytes and kidney function will be monitored frequently with blood tests before, during, and after each treatment.

CLADRIBINE (2-CdA, Leustatin)

Type of Drug: Antimetabolite

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Fever
- Feeling tired
- Muscle and joint aches
- Skin rash

Less Common Side Effects:

- Nausea (mild)
- Constipation
- Dizziness (at high doses)
- Headache
- Difficulty sleeping
- Decreased sensation in arms/legs (at high doses)

CYTARABINE (Cytosar-U, ARA-C, Cytosine Arabinoside, DepoCyt)

Type of Drug: Antimetabolite

How is it Given?

- Intravenous (IV) – into a vein or central line
- Intrathecal - into the spinal fluid

How Does It Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Nausea/Vomiting, loss of appetite
- Low blood counts (1-3 weeks after treatment)
- Diarrhea
- Mouth sores (at high doses)
- Taste changes

Less Common Side Effects:

- Flu-like symptoms (fever, aches, joint pain, tiredness)
- Abnormal liver function tests
- Eye irritation (at high doses)
- Soreness and redness of palms of hands and soles of feet (sometimes called hand-foot syndrome)
- Itchy rash

Note:

- Your liver function will be monitored through blood tests.
- You may be given prescription eye drops to prevent conjunctivitis (eye irritation)

DACARBAZINE (DTIC)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Nausea/Vomiting
- Low blood counts (3-4 weeks after treatment)
- Flu-like symptoms (fever, headache, aching joints)
- Pain or redness at injection site
- Sensitivity to sunlight

Less Common Side Effects:

- Mouth sores and taste changes
- Diarrhea
- Abnormal liver function tests
- Hair thinning/loss

Note:

- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.
- Avoid direct exposure to sunlight – wear protective covering and apply sunscreen.

DACTINOMYCIN (Actinomycin-D, Cosmegen)

Type of Drug: Anti-tumor Antibiotic

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Mouth sores/esophagus or rectal area
- Skin rash or redness in the areas which received radiation therapy
- Sensitivity to sunlight
- Hair loss

Less Common Side Effects:

- Diarrhea
- Abnormal liver function tests
- Fever, chills
- Skin rash (acne-like)

Note:

- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.
- Avoid direct exposure to sunlight – wear protective covering and apply sunscreen.

DAUNORUBICIN (Daunomycin, Cerubidine)

Type of Drug: Anti-tumor Antibiotic

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Nausea/Vomiting
- Low blood counts
- Mouth sores and taste changes
- Urine may be pink/red due to the color of the drug. This may last up to 2 days after treatment (looks like red fruit punch)
- Sensitivity to sunlight
- Hair loss

Less Common Side Effects:

- Heart muscle damage
- Diarrhea
- Abnormal liver function tests
- Darkening or redness of the skin
- Skin rash or redness in the areas which received radiation therapy
- Nails may change in color and texture (become darker)

Note:

- Your heart will be tested before this medicine is given and then at certain times during and after your treatment. This is done to monitor how your heart is working.
- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.
- Avoid direct exposure to sunlight – wear protective covering and apply sunscreen.

DEXAMETHASONE (Decadron)

Type of Drug: A hormone similar to natural hormones made by your adrenal gland, decadron is a steroid that kills some types of cancer cells and increases the effectiveness of other anti-cancer medicines.

How is it Given?

- Oral (by mouth)
- Intravenous (IV) - into a vein or central line

Common Side Effects:

- Increased appetite, weight gain and fluid retention
- Full or round "moon" face (with long-term use)
- Upset stomach
- Acne
- Increased blood sugar and sugar in the urine
- Irritability and mood/behavior changes
- Less resistance to infection and longer time for healing

Less Common Side Effects:

- Increased blood pressure
- Weak bones, fractures
- Muscle weakness
- Cataracts

Note:

- Take tablet with meals, never on an empty stomach. Milk or antacids may help to decrease upset stomach.
- Appetite will be increased. Eat healthy snacks and carry snacks with you. Avoid salty foods (chips, canned foods) and this will help minimize swelling from fluid retention.
- Call your oncologist or nurse if you notice black bowel movements (a sign of bleeding), or an increase in thirst or urination (a sign of increased blood sugar or sugar in the urine).
- Do NOT stop taking this medicine suddenly, unless directed by your oncologist or nurse. This medicine is usually weaned slowly over a period of several days to weeks.

DOCETAXEL (Taxotere)

Type of Drug: A man-made drug that comes from the yew tree

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Stops cancer cells from dividing into 2 new cells, thus blocking cancer growth

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Weight gain and swelling of hands and feet (can occur a few weeks after treatment)
- Mouth sores
- Hair loss
- Skin rash (itchy)
- Tingling in arms or legs (from nerve irritation)

Less Common Side Effects:

- Eye irritation (conjunctivitis)
- Abnormal liver function tests
- Fever, flushing, low blood pressure
- Muscle and joint aches
- Changes in taste
- Allergic reaction (difficulty breathing – usually happens in first 10 minutes of infusion)

DOXIRUBICIN (Adriamycin)

Type of Drug: Anti-tumor Antibiotic

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Nausea/Vomiting
- Low blood counts
- Mouth sores and taste changes
- Urine may be pink/red due to the color of the drug. This may last up to 2 days after treatment (looks like red fruit punch)
- Sensitivity to sunlight
- Hair loss

Less Common Side Effects:

- Heart muscle damage
- Diarrhea
- Abnormal liver function tests
- Darkening or redness of the skin
- Skin rash or redness in the areas which received radiation therapy
- Nails may change in color and texture (become darker)

Note:

- Your heart will be tested before this medicine is given and then at certain times during and after your treatment. This is done to monitor how your heart is working.
- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.
- Avoid direct exposure to sunlight – wear protective covering and apply sunscreen.

ETOPOSIDE (VP16, VePesid, Etopophos)

Type of Drug: Plant Alkaloid

How is it Given?

- Oral (by mouth)
- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Hair Loss
- Loss of appetite
- Changes in taste (including a metallic taste)

Less Common Side Effects:

- Constipation
- Mouth sores (at high doses)
- Skin changes (itchy rash, darkening of skin)
- Allergic reaction (dizziness, difficulty breathing)
- Abnormal liver function tests
- Low blood pressure

Note:

- Immediately report any feelings of dizziness or shortness of breath during your infusion to your nurse or oncologist.

FLUOROURACIL (5-FU, Efudex, 5-fluorouracil)

Type of Drug: Antimetabolite

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Stops cells from making and repairing DNA so the cancer cells cannot grow and multiply

Common Side Effects:

- Low blood counts
- Nausea/Vomiting (mild)
- Mouth sores
- Taste changes
- Diarrhea

Less Common Side Effects:

- Blurred vision, gritty eyes
- Hair thinning
- Skin changes (darkening of skin, itchy rash)
- Skin sensitivity to sunlight
- Soreness and redness of palms of hands and soles of feet
- Tingling in hands and feet

Note:

- Use sunscreen and protective clothing when outdoors.

GEMCITABINE (Gemzar)

Type of Drug: Antimetabolite

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Stops cells from making and repairing DNA so the cancer cells cannot grow and multiply

Common Side Effects:

- Low blood counts
- Nausea/Vomiting (mild)
- Flu-like symptoms (fever, chills, aches)
- Changes in liver function tests
- Changes in kidney tests (blood and protein in urine)
- Tiredness and general feeling of weakness
- Swelling (fluid retention)
- Diarrhea or constipation

Less Common Side Effects:

- Mouth sores
- Drowsiness
- Hair loss
- Rash (itching)
- Difficulty breathing, shortness of breath

Note:

- Immediately report any feelings of dizziness or shortness of breath during your infusion to your nurse or oncologist.
- Report any blood in urine, rash/hives, wheezing, persistent nausea/vomiting or diarrhea.

IFOSFAMIDE (Ifex)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Hair Loss
- Bladder irritation (may see blood in urine)
- Diarrhea

Less Common Side Effects:

- Abnormal liver function tests
- Kidney problems
- Skin rash
- Confusion, sleeplessness, loss of balance (rare)

Note:

- Your urine and fluid output will be monitored closely because this drug can irritate the bladder. You will be given lots of IV fluids during and after your infusion. While receiving this chemo, you will be asked to pass urine every 2-3 hours during the day and night. You will also be given a drug called **mesna** that helps protect the bladder. It is important to drink as much fluids as possible.
- Immediately report any painful urination or blood in urine.

LOMUSTINE (CCNU, CeeNU)

Type of Drug: Alkylating Agent

How is it Given?

- Oral (by mouth, capsules)

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts (occurs 3-6 weeks after treatment begins)
- Nausea/Vomiting

Less Common Side Effects:

- Mouth sores
- Taste changes
- Abnormal liver function tests
- Kidney damage (rare and only at high doses)
- Lung damage (rare and only at high doses)

Note:

- It is best to take this medicine at bedtime or on an empty stomach. Do not eat for 2 hours after taking this medicine because food can interfere with absorption.

MECHLORETHAMINE (Nitrogen Mustard, Mustargen)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Metallic taste
- Redness, burning, inflammation along the vein used for infusion
- Abnormal menstrual cycle

Less Common Side Effects:

- Ringing in ears
- Hearing loss
- Hair loss
- Joint pain
- Diarrhea
- Swelling in feet or lower legs

Note:

- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.
- Chewing gum or sucking on candy may help to decrease the metal taste in your mouth.

MELPHALAN (Phenylalanine Mustard, L-Pam, Alkeran)

Type of Drug: Alkylating Agent

How is it Given?

- Oral (by mouth, tablets)
- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Mouth sores (at high doses)
- Hair loss (at high doses)
- Diarrhea (at high doses)

Less Common Side Effects:

- Lung changes (difficulty breathing)
- Darkening of the skin and itching
- Allergic reaction (rash, shortness of breath, low blood pressure)

Note:

- Immediately report any shortness of breath or difficulty breathing.

METHOTREXATE (Amethopterin, Rheumatrex, Trexall, MTX)

Type of Drug: Antimetabolite

How is it Given?

- Oral (by mouth)
- Intravenous (IV) – into a vein or central line
- Intramuscular (IM) – in the muscle
- Intrathecal (given through the spinal canal)

How Does it Work?

- Stops cells from making and repairing DNA so the cancer cells cannot grow and multiply

Common Side Effects:

- Mouth sores
- Nausea/Vomiting (more common at high doses)
- Diarrhea (more common at high doses)
- Low white blood cell count (more common at high doses)
- Skin sensitivity to sunlight (rash)
- Skin changes (darkening of the skin, itchy rash)
- Loss of appetite
- Abnormal liver function tests (more common at high doses)
- Gritty eyes (inflammation of the cornea)

Less Common Side Effects:

- Headache, drowsiness
- Blurred vision, eye sensitivity to sunlight
- Hair loss
- Kidney damage
- Skin rash or redness in the areas which received radiation therapy
- Changes to the lungs (cough, shortness of breath)

Note:

- You will be given a drug called Leukovorin which must be taken **exactly on time.**
- Use sunscreen, sunglasses and protective clothing when outdoors.
- Report any mouth sores.
- Always check with your nurse or oncologist before taking any over the counter or prescription medications.

MITOXANTRONE (Novantrone)

Type of Drug: Topoisomerase II inhibitor

How is it Given?

- Intravenous (IV) - into a vein or central line

How Does it Work?

- Blocks an enzyme necessary for cancer cells to grow and multiply

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Hair loss
- Urine turns a blue/green color lasting 1-2 days after treatment is finished (color of the drug)
- The white part of the eye (sclera) may temporarily turn blue/green

Less Common Side Effects:

- Mouth sores and taste changes
- Diarrhea
- Abnormal liver function tests
- Heart muscle damage

Note:

- Your heart will be tested before this medicine is given and then at certain times during and after your treatment. This is done to monitor how your heart is working.
- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.

PREDNISONE/METHYLPREDNISOLONE (Deltasone/Solumedrol)

Type of Drug: A hormone similar to natural hormones made by your adrenal gland, prednisone is a steroid that kills some types of cancer cells and increases the effectiveness of other anti-cancer medicines.

How is it Given?

- Oral (by mouth)
- Intravenous (IV)- into a vein or central line

Common Side Effects:

- Increased appetite, weight gain and fluid retention
- Full or round “moon” face (with long-term use)
- Upset stomach
- Acne
- Increased blood sugar and sugar in the urine
- Irritability and mood/behavior changes
- Less resistance to infection and longer time for healing

Less Common Side Effects:

- Increased blood pressure
- Weak bones, fractures
- Muscle weakness
- Cataracts

Note:

- Take tablet with meals, never on an empty stomach. Milk or antacids may help to decrease upset stomach.
- Appetite will be increased. Eat healthy snacks and carry snacks with you. Avoid salty foods (chips, canned foods) and this will help minimize swelling from fluid retention.
- Call your oncologist or nurse if you notice black bowel movements (a sign of bleeding), or an increase in thirst or urination (a sign of increased blood sugar or sugar in the urine).
- Do NOT stop taking this medicine suddenly, unless directed by your oncologist or nurse. This medicine is usually weaned slowly over a period of several days to weeks.

PROCARBAZINE (Matulane)

Type of Drug: Works similar to an alkylating agent

How is it Given?

- Oral (by mouth, capsules)

How Does it Work?

- Stops cancer cells from making proteins and DNA which they need to grow and multiply

Common Side Effects:

- Low blood counts (2-4 weeks after treatment)
- Nausea/Vomiting
- Flu-like symptoms (fever, chills, weakness, headache, aching joints)

Less Common Side Effects:

- Mouth sores and taste changes
- Diarrhea
- Hair thinning/loss
- Tingling in hands and feet (nerve irritation)
- Darkening of skin
- Rash (itchy)
- Difficulty sleeping
- Emotional changes (anxiety, depression)

Note:

- Report all prescription and over-the-counter medicine(s) that you are taking. Do **NOT** take anything before checking with your oncologist or nurse. This drug can react with other drugs, especially those for colds, hay fever, and "keep awake" medicines.
- Procarbazine interacts with alcohol and certain foods which can increase side effects and cause severe nausea/vomiting, difficulty in breathing, faintness, or sleepiness.
- Check with your oncologist or nurse about avoiding the following: cheese, yogurt, sausage, salami, pepperoni, bananas, over-ripe fruit, colas, coffee, tea, meats that have been pickled, smoked, or fermented fava beans.
- Avoid alcohol and any food/medicines that contain alcohol.

TEMOZOLOMIDE (Temodor)

Type of Drug: Alkylating Agent

How is it Given?

- Oral (by mouth, capsules)

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Constipation
- Taste changes
- Headache
- Tiredness and weakness

Less Common Side Effects:

- Hair loss
- Rash (itchy)
- High fever and chills (does not last long)
- Dizziness, coordination problems, seizures, weakness on one side, confusion, difficulty sleeping
- Swelling

Note:

- Capsules should be taken on an empty stomach with water at the same time every day.
- **Never** open the capsules.
- Report any symptoms to your oncologist or nurse.

TENIPOSIDE (VM-26)

Type of Drug: Plant Alkaloid

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting
- Diarrhea
- Mouth sores

Less Common Side Effects:

- Low blood pressure
- Rash
- Numbness/tingling in hands and feet (nerve irritation)
- Allergic reaction (hives, itching, flushing)
- Abnormal liver function tests
- Abnormal kidney tests

Note:

- Your blood pressure will be monitored throughout the infusion.

THIOTEPA (TSPA, Thioplex, TESPAs)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts

Less Common Side Effects:

- Headache
- Dizziness
- Darkening, redness, or peeling of skin
- Allergic reaction
- Hormone changes

TOPETECAN (Hycamtin)

Type of Drug: Alkylating Agent

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Nausea/Vomiting (mild)
- Hair loss
- Tiredness

Less Common Side Effects:

- Flu-like symptoms (fever, headache, chills, aches)
- Diarrhea
- Mouth sores
- Rash

VINBLASTINE (Velban, VLB)

Type of Drug: Plant Alkaloid

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Low blood counts
- Constipation
- Abdominal pain

Less Common Side Effects:

- Nausea/Vomiting (mild)
- Tingling, numbness, or muscle weakness of hands or feet, jaw pain, difficulty urinating (from nerve irritation)
- Mouth sores
- Hair thinning/loss

Note:

- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.

VINCRISTINE (Oncovin)

Type of Drug: Plant Alkaloid

How is it Given?

- Intravenous (IV) – into a vein or central line

How Does it Work?

- Interferes with the growth of cancer cells

Common Side Effects:

- Tingling, numbness, or muscle weakness of hands or feet from nerve irritation
- Jaw and joint pain
- Constipation
- Abdominal pain
- Difficulty urinating

Less Common Side Effects:

- Low blood counts
- Drooping of the eyelids
- Hair thinning/loss

Note:

- This medicine can be irritating to tissue if it leaks out into the vein. Tell the person giving the medicine if you feel any pain or burning while it is being given.