Handbook for
Gynecologic Oncology Patients

Physicians
Ron Buckanovich, MD, PhD  Medical Oncologist
Carolyn Johnston, MD  Gynecologic Oncologist
Angela Kueck, MD  Gynecologic Oncologist
Richard Lieberman, MD  Gynecologist
J. Rebecca Liu, MD  Gynecologic Oncologist
Anthony Opipari, MD, PhD  Gynecologist
R. Kevin Reynolds, MD  Gynecologic Oncologist and Chief of Gyn Oncology Division
Lauren Zoschnick, MD  Gynecologist

Physician Assistant
Christine Willacker, PA-C  Physician Assistant, Survivor’s Clinic

Nurses and Clinical Pharmacologist
Bridget Capo, RN  Catherine Christen, PharmD
Rochelle Slay, RN  Rhonda Tolbert, RN

University of Michigan Comprehensive Cancer Center

Author
R. Kevin Reynolds, MD
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Your Health Care Team

Our goal in the Gynecology Oncology program is to provide the best possible care for you while you are undergoing treatment for your cancer.

Physicians:
While undergoing cancer treatment here at the University of Michigan, your care will be provided by a physician team. Gynecologic oncologists are subspecialty trained physicians who are experts in cancer surgery, chemotherapy, and radiation implants. Medical oncologists are subspecialty trained physicians who are experts in chemotherapy. Gynecologists are specialists with expertise in pre-cancers. The University of Michigan is a teaching hospital and our goals include not only providing the best patient care, but also the education of students in healthcare-related fields. Fellows and residents are physicians-in-training and medical students will soon be physicians. They are part of the team and will participate in your care under the guidance and supervision of your faculty (“attending”) physician.

Physician Assistant:
A Physician Assistant is a licensed provider dedicated to the care of our cancer patients. The Physician Assistant assists with patient evaluations by the attending physicians and may diagnose and treat patients under the supervision of the attending physicians. Once your treatment has been completed, a Physician Assistant will often be your provider for many of the surveillance exams in our Cancer Survivor’s Clinic. These careful follow-up exams allow us to monitor for any hint of relapse of the cancer.

Nursing Staff:
Nursing staff are part of your patient care team. They are available to talk about treatment and its side effects and to help answer any questions you may have. Please bear in mind that the nurse may not know the specifics of your therapy, and thus treatment issues may be referred back for discussion with your physician. A home care coordinator, who is also a nurse, is often involved in helping you and your family set up home care including nursing visits, home equipment and other needs.
Clinical Pharmacologist:
A clinical pharmacologist may participate in the monitoring of your chemotherapy and optimization of other medications that you may require.

Social Worker:
A social worker is a licensed professional available to you and your family to discuss your needs and concerns. They can assist you with finding housing, financial or insurance concerns, referrals to community agencies as well as assistance in dealing with the emotional aspects of going through treatment. Call (734) 647-8906 for an appointment.

Dietitian:
A dietitian who specializes in the needs of cancer patients is available to work with you to answer and address any nutritional concerns. Our dietitian works one-on-one with the patient and family to provide suggestions for appropriate nutritional intake. These services are free to Cancer Center patients. Call (734) 936-7527 for an appointment. An inpatient dietitian is also available to you when you are in the hospital.

Initial Visit

Your gynecologic oncology team needs a complete picture of your current health status and health history to plan your care. You will be asked detailed questions by your physician and nurse team members. Please make sure your referring physician has sent copies of your records, biopsy slides, and X-rays to assist us. You should bring all medications you are currently taking.
Once your medical information is gathered, your attending physician will prepare a treatment plan and discuss it with you. Depending on your specific condition, the treatment plan may include surgery, chemotherapy, radiation therapy, hormone therapy, or a combination of treatments.

◊ **Surgery** may be a part of diagnosis and treatment of your cancer, or for management of complications such as bowel obstruction.

◊ **Chemotherapy.** Chemotherapy uses drugs to kill cancer cells. There are dozens of different types of chemotherapy drugs. Some are given intravenously, while others are given orally, and some are injected into the abdominal cavity. The type of chemotherapy you receive will depend on the type of cancer you have as well as the extent of spread (if any). Chemotherapy can be used alone or in combination with other types of treatment such as surgery or radiation.

◊ **Radiation Therapy** uses X-rays as a local treatment and may be used alone or in combination with other types of treatments.

You should feel free to ask as many questions as you would like. Our goal is to help you understand all of your options.
The following diagram and open page may be used to indicate the location of the cancer and illustrate how your treatment plan will affect you. If chemotherapy will be needed, you will also receive a treatment calendar and information for each chemotherapy medication to be used.
Notes
Evaluation: Before, During and After Treatment

Before, during and after treatment, you may undergo various tests. The tests you receive will depend on your disease, the treatment plan and/or your past history. Some tests may be repeated during the treatment process. This is to monitor for changes that may occur. Some of the tests are:

1) Audiology  Tests your hearing. Some chemotherapy may decrease hearing.

2) Biopsy  Removes a small piece of tissue or skin to see if cancer or pre-cancer is present.

3) Blood Tests  Blood counts (i.e. CBC, liver and kidney tests) tell how well you will be able to tolerate cancer treatment such as surgery or chemotherapy.

4) CAT or CT Scan  An imaging study in which multiple X-rays are taken of a part of the body to produce pictures of internal organs. Injection of a dye is needed in some, but not all cases.

5) Colposcopy  Use of a binocular microscope to evaluate the cervix in women with pre-cancer of the cervix.

5) ECHO/EKG/MUGA  These are different tests that determine how your heart is functioning and one or all may be necessary prior to surgery or chemotherapy.

6) Pap Test  A gentle scraping of the cervix or vagina to see if cancer or pre-cancer (dysplasia) may be present.

7) PET Scan  An imaging study in which a special sugar tagged with short acting radiation is injected into the body. The sugar is consumed as fuel more readily by cancer cells, and this shows up as a hot spot on the images allowing the location of cancer cells to be determined.

8) Tumor Marker Blood Tests  A tumor marker is an indicator for the presence of cancer. The marker is a substance made by a cancer cell that can be measured in the blood and may go down in response to treatment. CA125 is an example, although other tumor markers are also utilized. Not all tumors make these substances.

9) Ultrasound  An imaging study that used sound waves to construct an image of internal organs.

10) Urinalysis and urine cultures  Checks for the presence of a urinary tract infection and assesses your kidney function.
Inpatient Information

8B Gynecologic Oncology Unit

If you require hospitalization for surgery or some types of chemotherapy, you will most likely be on the 8B/C Units. These units, located on the 8th floor of University Hospital, are 32-bed units that consists of two hallway’s, each with 16 beds. Semi-private and private rooms are available.

Visiting Hours & Visitors

The visiting hours are unrestricted. Lodging arrangements in the area are available and can be discussed with the nurse or social worker. There are minimal limitations on the number of visitors in a private room (within reason), but you are asked to limit visitors in a semi-private to two at one time. Any visitors who have colds, flu or other illnesses are asked to check at the nurse’s station on the unit and probably shouldn’t visit until they are healthy. Young children may visit if they have not been recently exposed to contagious diseases (such as chickenpox, measles, colds or flu) and are healthy.

Outpatient Information

Our office location for outpatient appointments is located on Floor 1 of the Cancer Center.

If you require outpatient chemotherapy, you will most likely be treated in the infusion center located on Floor B1 of the Cancer Center. Some outpatient chemotherapy may be administered at other sites in the medical center, including the Med Inn, or off-site. Your chemotherapy nurse will make certain that you are kept informed of your treatment location.

Comprehensive Cancer Center

Resource Phone Numbers
Gynecology Oncology Clinic - Level 1: (734) 647-8906 for appointments and problems
Outpatient Infusion Area - Level B1: (734) 647-8908 Confirm
Patient Education Resource Center (PERC)
Level B1, Room 361 (Confirm)

This room houses a variety of educational materials in many different formats, including pamphlets, videotapes, CD’s and Internet access. Feel free to browse. The PERC program coordinator and volunteers are available to answer questions and help guide you to specific resources of interest.

Treatment Issues

Surgery
You will need time to heal after surgery. It takes about 2 weeks for laparoscopy incisions to heal and 6 weeks for other open types of surgery incisions to heal. In general, light activities and chores after discharge from the hospital are encouraged since they speed recovery. Climbing stairs is acceptable if taken slowly. It is alright to ride in a car, but you should not drive without checking with your physician. Driving is usually safe within two to four weeks after surgery. You should be careful not to lift heavy objects weighing more than five to ten pounds for the first 6 weeks after surgery. After surgery, you should not resume having intercourse until healing is complete. The time required for healing before resuming intercourse depends on the type of surgery and is usually complete within 6-10 weeks after surgery. You should discuss this with your physician before resuming normal sexual activity.

You will be given additional recommendations based on your specific type of surgery.

Chemotherapy
Chemotherapy uses drugs to kill cancer cells. When a chemotherapy drug kills cancer cells, it will also kill a smaller number of normal cells within the body. This may result in side effects or toxicity from chemotherapy drugs. In addition to the information below and for more in-depth information, ask your physician or nurse for details. Another excellent reference is the Chemotherapy and You booklet published by the National Institutes of Health.

Hair loss (Alopecia)
Many chemotherapy drugs may cause hair loss ranging from thinning to complete hair loss. It usually begins about the second or third week after administration of the drug. You may feel colder after you lose your hair and you may choose to wear a cap, scarf, wig or turban. If you plan to get a wig, please ask your nurse for a prescription and additional information. The prescription may help you in obtaining insurance coverage. Hair loss is usually temporary. Re-growth may take three to five months after the chemotherapy is completed.
Diarrhea
Loose or watery stools can occur with some chemotherapy drugs and with radiation therapy. It will be important for you to keep track of the number of diarrhea stools. Notify your physician if this lasts for more than 24 hours, or if you are noticing any symptoms of dehydration or rectal bleeding. Signs of dehydration may include dizziness or feeling lightheaded, especially upon moving to an upright position; dark or concentrated urine; dry mouth or an increase in pulse.

Mouth Sores
Mouth sores can occur with chemotherapy. The sores can develop on the tongue, gums or in the throat. It is important to have good oral hygiene. In addition, you may be instructed to use a salt and soda rinse.

Recipe: \(\frac{1}{2}\) teaspoon of salt and \(\frac{1}{2}\) teaspoon of baking soda in a cup of warm water.
Rinse and spit four times a day.

Call the doctor if your mouth sores stop you from eating, drinking or if you have difficulty swallowing. Prescription oral rinses may be prescribed to assist in improvement of symptoms.

Nausea and Vomiting
Nausea and sometimes vomiting may be experienced with some chemotherapy drugs and occasionally with radiation therapy or surgery. It can begin shortly after treatment is given and the duration varies from person to person. You will be given medications to minimize or prevent this side effect. Please call your nurse if you are unable to keep down any fluids. Once you notify us, we are usually able to modify your anti-nausea medications in order to control the nausea. Do not worry if you do not feel like eating solid foods. It is often times helpful to eat small, frequent meals.

Low Blood Counts
Your blood is made up of several important cells that are made in the bone marrow. Some of these include platelets, red cells and white cells. Many chemotherapy drugs affect the bone marrow’s production of these cells because they are fast-growing. There are symptoms that may occur and should be recognized when your blood counts are low. Your blood counts will be monitored during chemotherapy. If we, or you, need to do something different related to your low blood counts, we will call you to inform you of what would be the best course of action.

The following information is provided to help alert you to these signs and symptoms:

**White Blood Cells**
**Purpose:** Your white blood cells (WBC’s) help protect your body by fighting bacteria and other germs that cause infection. Neutrophils, and granulocytes, are names for the portion of the total WBC that fight infection.

**Normal Values:** Total WBC: (4,000 - 10,000/mm³)
Symptoms of Infection:
1. Fever of 100.5°F or greater, or shaking and/or chills
2. Cough, sore throat
3. Sweating not related to exercise
4. Urinary frequency, urgency, burning or odor
5. Diarrhea
6. Fatigue or flu-like symptoms
7. Redness or swelling at the site of a surgical incision
*Report any of the above symptoms to your doctor or nurse as soon as possible.

Precautions: White blood cells are the cells most affected during chemotherapy which puts you at risk of getting an infection. Please use good judgment to try to avoid infection, such as:
1. Avoid physical contact with people who have a contagious infection such as the flu or a cold
2. Practice good personal hygiene, especially frequent hand washing
3. Do not share drinking glasses
4. Carry out mouth care as directed

Platelets
Purpose: Platelets help your blood clot so that bleeding is prevented.

Platelet Normal Value: (100,000 - 450,000/mm3)

Symptoms of bleeding related to low platelets:
1. Nose bleed that does not stop after 20 minutes
2. Easy bruising
3. Prolonged bleeding from a cut
4. Black or bloody stools
5. Pink, red or brown urine.
6. Pin-point sized red or purple spots on your skin (called petechiae)
7. Bleeding from the gums that does not stop
8. Bleeding in the whites of the eyes
9. Bloody sputum (spit)
10. Severe headache that comes on quickly and does not go away
11. Excessive or abnormal vaginal bleeding
*Report any of the above symptoms to your doctor or nurse as soon as possible.

Precautions:
1. Avoid injury
2. Apply pressure to sites of bleeding
3. Do not use sharp objects such as needles, razor, etc when your platelet count is low
4. Do not use aspirin or any aspirin-containing products while on chemotherapy unless instructed to do so by your doctor. (It is a good idea to look at the ingredients of over-the-counter medications. Many contain aspirin or aspirin-like products).
5. Avoid constipation because straining can cause injury

Red Blood Cells

Purpose: Red blood cells carry oxygen to all of the organs in your body. Hematocrit and Hemoglobin are the blood tests that measure the ability of your red blood cells to carry oxygen. Anemia is the term used to describe low numbers of red cells.

Normal values:  
Hemoglobin (Hgb): 12.0-16.0 g/dl  
Hematocrit (Hct): 35.0-48.0 g/dl

Symptoms of low values or Anemia:
Mild Anemia:
1. Shortness of breath on exertion
2. Weakness and/or fatigue
Severe Anemia:
1. Shortness of breath that interferes with normal activities of living, such as walking short distances
2. Palpitations of the heart
3. Profound weakness and/or fatigue
4. Pale color of the skin
5. Dizziness
6. Headache or ringing in the ears
*Report any of the above symptoms to your doctor or nurse as soon as possible.

Management of Anemia:
1. Take frequent rest periods
2. Eat high carbohydrate, high protein well-balanced diet
3. Take an iron supplement, as recommended by your physician
4. Avoid strenuous activities if you are tired
5. You may be asked to have blood counts drawn in your hometown or to come to the clinic to be evaluated
6. At times you may require a red blood cell transfusion
7. Notify your doctor or nurse regarding these symptoms

Chemotherapy affects other organs of the body such as the kidneys, heart, etc. Although severe side effects are infrequent, it is impossible to predict in advance who will experience these side effects and who will not.

◊ You will be given information relating to the chemotherapy drugs that you will be receiving and which side effects might be expected.
It is always important to communicate these side effects to your doctor or nurse.

**Radiation Therapy**

It is not uncommon to feel tired during radiation treatment. Treatment may last for up to six weeks, and the specifics of this treatment will very according to what type of cancer treatment you require. A common side effect of radiation during treatment is diarrhea. There are changes in diet and medication that can help to minimize this problem. Hair loss will occur only in the part of the body exposed to radiation treatments (typically the pubic hair region), unlike the more widespread hairloss associated with chemotherapy.

**Emotional Concerns During and After Treatment**

Many feelings are normal during the initial period of dealing with a serious illness. These include worrying about potential loss of relationships, job changes, change in the ability to carry out certain responsibilities in private and professional lives, and many others. It is common to feel overwhelmed with all the information given. It is not unusual to have concerns related to life and death. Suggestions for clarifying information and reducing confusion are:

- Write down questions that come to mind and prioritize them so you focus on the most important. Record the answers once received.
- Bring a family member or a friend with you to your appointments to help you remember the information.
- Take one step at a time, focusing on one issue at a time. Looking down the road into the future can often seem overwhelming, but broken down into smaller pieces it can be easier to handle.
- Allow friends and family members to assist you in completing tasks that need to be done, i.e. cutting the lawn, doing laundry, getting groceries. Individuals often want to do something to help but don’t know how or what to do.
- Give yourself permission to get what you need. For example, if you do or do not want people visiting, make it clear when and how often. If you are not feeling up to the family get together, it is okay to limit time spent at an event or to not go.

After treatment is completed, it is common to be uncertain about the future. Many women experience heightened awareness of body sensations and may have fear related to follow-up appointments and exams. Transition back into the role of being well is often difficult, and family and friends may have different expectations than the patient herself. It is important to be frank when communicating your needs to those around you.
Fear of cancer recurrence is also common. Individuals (patients and family members) all cope differently. It is also not uncommon to become uneasy when treatment ends and you are no longer seen by your health care team as frequently.

Patients will continue seeing or talking with health care professionals after treatment is complete. Social workers support individuals while undergoing treatment and will often continue to do so after active treatment is completed. Counseling is available with professionals who specialize in the care of patients who are under treatment for cancer.

We want to work with you in this process and assist you in your decision making.

**Sexuality**

Many of our cancer patients are able to continue with normal sexual function despite having undergone cancer therapy. However, sexual function may be affected by several aspects of cancer care, including healing from surgery, vaginal dryness or other hormone affects, discomfort, changes in self image, and the concerns of your partner. After surgery, you should not resume having intercourse until healing is complete. Although healing for most cancer patients is often complete in six to ten weeks, you should ask your physician or nurse practitioner about this. Many treatments that help with other aspects of sexual function, such as use of vaginal dilators or lubricants, changes in hormone replacement, adjustment of pain medications, or counseling, may be helpful depending on the type of sexual difficulty experienced. If you have other concerns about sexuality, please do not hesitate to ask your physician or nurse.
When to Call Your Doctor or Nurse

Everyone is different and may have slightly different complications following treatment. In order to help you, we need you to be aware of what is abnormal or unusual for you. Be alert for anything that is different, and report it to your health care team.

You Should Call Your Doctor or Nurse if:
* You are feeling confused, dizzy, overly tired or weak
* You notice yellowing of your eyes or skin
* You have redness, pain or sores in your mouth
* Your heartbeat feels unusual or irregular
* You have been unable to eat or drink in the past 24 hours
* You have been nauseated or vomiting for more than 24 hours
* Your bowels do not move for 2-3 days
* You have diarrhea (loose, watery stool) for more than 24 hours
* You have blood in your urine or in your stools (either bright red or black bowel movements) Please note that iron supplements may turn your stools very dark in color.
* You have any vaginal bleeding or discharge that is unusual for you
* You have a nose bleed that does not stop after 20 minutes
* You have pain that is not controlled by your current medication
* You notice any changes in your IV catheter or surgical drains (if any), including a change in the appearance of the line, redness, drainage, swelling or pain.
* You have an oral temperature of 100.5 degrees Fahrenheit (38.1 degrees C) or higher

    DO NOT take Tylenol or aspirin until you speak with your doctor or nurse
* You have signs and symptoms of an infection. These include shaking and/or chills, a burning feeling when urinating, a cough, sore throat, a general feeling of tiredness or “flu-like” symptoms, redness or swelling of a surgical incision, or fever.

Call (734) 647-8906 to speak with your nurse if you have any other concerns or questions not listed above.
Frequently Asked Questions By Gynecology Patients

Q: Will my hair fall out and when does that occur?
A: The degree of alopecia or hair loss is highly variable from person to person and also depends on which chemotherapy drugs are in use. Hair loss caused by chemotherapy may become apparent over a 2-3 week period. After discontinuing chemotherapy, initial regrowth may be seen in 4-6 weeks. If you are treated with radiation therapy, you will probably lose pubic hair, but you will not lose the hair on your head. Hair loss caused by radiation is usually permanent.

Q: If my blood counts drop from chemotherapy what will be done?
A: Depending on your symptoms, you may receive medications to increase your white or red blood cells. Other medications such as antibiotics may also be prescribed. Occasionally, blood transfusion may be necessary. If blood counts are very low, future chemotherapy doses may need to be reduced.

Q: Will I be able to maintain the same level of activity? Can I go to work or run errands?
A: Response to chemotherapy, surgery, or radiation varies from individual to individual. It is normal to feel tired for the first few weeks after surgery. You may also be fatigued while undergoing chemotherapy or radiation treatments. Pay attention to the clues your body gives you and rest as needed, maintaining activity as you are able. It is a good idea to discuss fatigue with your doctor or nurse. Fatigue can be related to many things such as low blood counts, normal everyday activity, etc. Your doctor or nurse can help you sort out the cause of your fatigue and how to treat it.

Q: Should my diet be any different before chemotherapy?
A: Some people find that it may be helpful to eat foods that are more easily tolerated such as bland foods, soups and tea, while avoiding spicy or fatty foods.

Q: Can I drive?
A: It is not a good idea to drive if you are taking pain medications or medications for nausea that would impair your ability to react quickly in driving situations. Ask your physician when the best time is to begin driving again.

Q: Can I work during chemotherapy or radiation therapy?
A: Depending on the type of job and activities involved, many people undergoing treatment often work at their regular job.

Q: What does it mean to be treated in a research hospital?
A: Although we have made great strides in the treatment of cancer, many types of cancer are not yet easily cured. Our goal of being able to cure cancer will depend on continued research resulting in new surgical techniques, chemotherapy drugs, and radiation techniques in the years to come. We hope that totally new technologies such as gene therapy and immunotherapy, in addition to better technology for early detection or prevention of cancers may lessen the impact of cancer on each and every one of us. Breakthroughs such as these begin in the laboratory and eventually progress to clinical trials. A clinical trial is a research study conducted with cancer patients to evaluate a new treatment: if a new treatment is demonstrated to be effective in clinical trials, it is then adopted as standard therapy for cancer patients. Participation in a clinical trial is voluntary. To find out if you may be eligible for participation in a clinical trial, you should ask your physician.

Research is subject to rules and regulations established by the National Institutes of Health and the University of Michigan. These rules are designed to protect the safety of patients and to insure that research is of the highest quality. A patient enrolled in a clinical trial is not a “guinea pig”, but is instead contributing generously to our ability to understand how to best treat cancer patients.

Research is funded in a number of different ways. Some projects are funded by federal research grants, while others may receive funding from independent agencies such as the American Cancer Society, from companies investing in cancer treatment technologies, and by gifts from individuals in support of research.

**Gifts**

Gifts from individuals, families and corporations aid greatly in the search for a cure for cancer. If an individual is interested in contributing financially to cancer research, options include gifts that can be directed to any specific cause or project care of the University of Michigan. If you would like more information about a gift to promote research, please discuss this with you physician or call the Children and Women’s Health Senior Gift Officer, Jennifer Edwards, at 998-7363.

**Glossary**

**Alopecia** Partial or complete loss of hair. This may result from radiation to the head, or from certain chemotherapy drugs.

**Anemia** A condition when there is a decrease in the number of red blood cells or in hemoglobin.

**Antiemetics** Drugs given to prevent or minimize nausea and vomiting.

**Ascites** An abnormal fluid collection in the abdomen from cancer or other causes.
**Biopsy**  The surgical removal of a small portion of tissue for diagnosis.

**Blood cells**  Cells that make up blood are formed in the bone marrow. These include:
- **Red blood cells** - (Erythrocytes; RBC) carry oxygen throughout the body (measured by the hematocrit or HCT).
- **White blood cells** - cells that help the body defend against foreign substances. Neutrophils are the most important type.
- **Platelets** - cells necessary to help form a clot and stop bleeding.

**Brachytherapy**  The use of a radioactive “seed” temporarily implanted directly into a tumor. This allows a very high, localized dose of radiation to be given to a tumor, while limiting significant radiation exposure to other tissues.

**Chemotherapy**  The treatment of cancer by drugs designed to kill cancer cells or stop them from growing. For more information see *Chemotherapy and You* booklet.

**Clinical trials**  The process by which new cancer treatments are tested in humans. Clinical trials are conducted after preliminary testing has shown that a new treatment might be effective. For more information see *What Are Clinical Trails All About* booklet. The National Cancer Institute maintains a web site with open clinical trials at www.nci.nih.gov

**Cone Biopsy**  The removal of a cone-shaped piece of tissue from around the opening of the cervix.

**Colony Stimulating Factor**  A substance that stimulates the growth of bone marrow cells. Treatment with colony-stimulating factors (CSF) can help the blood-forming tissue recover from the effects of chemotherapy and radiation therapy. These include Granulocytes colony-stimulating factors (G-CSF, Neupogen and Neulasta are the trade name) and Epoetin alpha, (Epogen, EPO, Procrit are some of the trade names).

**Complete Blood Count - (CBC)**  A blood test that determines the number of red blood cells, white blood cells and platelets in the blood.

**Debulking**  A surgical procedure that removes a significant part or most of a tumor. This may make future chemotherapy or radiation more effective.

**Effusion**  A collection of fluid inside a body cavity, such as around the lungs, (pleural), intestines (peritoneal) or heart (pericardial).

**Electrolytes**  Certain chemicals including sodium, potassium, chloride and bicarbonate found in the tissues and blood. They are often measured to monitor toxicities, effects of treatment, etc.
Emesis  Vomiting.

Enteral feeding  Administration of liquid food (nutrients) through a tube inserted into the stomach or intestine.

Epidural  The space just outside the spinal cord. Catheters may be inserted into this space to deliver anesthetics or morphine for pain control.

Estrogen  The female sex hormone produced by the ovaries. Estrogen controls the development of physical sexual characteristics, menstruation and pregnancy. Synthetic forms are used in oral contraceptives, estrogen replacement therapy, and other various therapies.

Extravasation  Leakage into the surrounding tissues of intravenous chemotherapy drugs from the vein being used for the infusion or injection. Extravasation may damage tissues.

Frozen section  A procedure done by the pathologist during an operation to give the surgeon an immediate answer as to whether a tissue is benign (non cancerous) or malignant (cancerous).

Grade of Tumor  A way of describing tumors by their appearance under the microscope. Low-grade tumors are slow to grow and spread, while high-grade tumors grow and spread rapidly.

Guaiac test  A test to see if there is hidden blood in the stool.

Hematocrit  A way of measuring the red blood cell content of the blood. A low hematocrit is a sign of anemia.

Hematuria  Blood in the urine. This may be seen easily by the naked eye (gross hematuria) or it can be hidden (microscopic hematuria).

Hemoglobin  A way of measuring the oxygen carrying ability of the blood.

Immunosupression  The state of having decreased immunity and thus being less able to fight off infection.

Intravenous (IV)  Within or through a vein.

Ileostomy  An artificial opening in the skin of the abdomen, leading to the small bowel. Similar to a colostomy.

Laparoscopy  A type of surgery using a very small camera and instruments that are inserted into the abdomen through small, band-aid sized incisions in order to
perform complex surgeries. The small incisions allow faster healing and cause less pain than conventional surgery.

**Malaise**  The feeling of tiredness, lack of drive.

**Metastasis**  The spread of cancer from one part of the body to another. Cells that spread are like those of the original cancer. For example: Ovarian cancer cells may spread (metastasize) to the lymph nodes and cause the growth of a new tumor. When this happens, the disease is called metastatic ovarian cancer. It is important to note that the cancer is still considered to be ovarian in origin because the tumor is made of abnormal ovarian cells.

**Mucositis**  Inflammation and soreness of mucous membranes such as tissue lining the mouth or throat. This is sometimes a side effect of chemotherapy or radiation.

**Nadir**  The lowest point at which the blood counts drop after chemotherapy.

**Nephrotoxic**  Medications or drugs that are toxic to the kidneys.

**Neuropathy**  This is a side effect caused by a few chemotherapy drugs, that causes numbness and/or tingling in the fingers and toes.

**Oophorectomy**  The surgical removal of one or both ovaries.

**Paracentesis**  A procedure in which fluid is taken out of the abdomen by a very thin catheter.

**Petechiae**  Small red spots under the skin caused by a low platelet count.

**Port**  An implanted, reusable IV to administer chemotherapy. Once placed, an I.V. can be easily connected to the port again and again without having to start a new I.V. in the arm.

**Protocol**  A formalized outline or plan such as a description of what treatments a patient will receive and exactly when each should be given.

**Residual Disease or Residual Tumor**  Cancer left behind after surgery or other treatment.

**Robotic Surgery**  A type of laparoscopy using very small instruments controlled by the surgeon using robotic arms. This allows complex surgery to be performed through very small incisions. This is called the *da Vinci* system.

**Stage**  Stage refers to the mapping of where cancer may or may not have spread. Determination of the stage is very important for planning the most effective treatment for a cancer by taking into account where the disease is located.
**Stomatitis**  Inflammation and soreness of the mouth. This is sometimes a side effect of chemotherapy or radiation.

**Transfusions**  The infusion of any blood cell product. Example: red blood cells, platelets.

References:
Wintermeyer-Pingel, S.A. Colturi, DL. (1993) *Coping Through Transitions*

**Key Phone Numbers**

<table>
<thead>
<tr>
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<td>Hospital Fees: 1-800-992-9475</td>
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<tr>
<td>Answering Service</td>
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For weekend calls, or calls after 5 PM on weekdays.

For professional fees and hospital fees.