Introduction

We created the *Gynecologic Cancer Kit* to highlight the key principles for you, as you manage the cancer decision-making process. In it, you will find helpful tools designed to present you with an informative, insightful review of one approach you as a patient or caregiver may choose to adopt and incorporate, in your own search for the best cancer treatment available.

Undoubtedly, many unfamiliar issues surface after a cancer diagnosis—questions and concerns you never imagined you would have to face. It’s natural to feel overwhelmed, angry or upset. Your situation requires you to make a multitude of tough decisions, often immediately. But you *do* have the power to make sharp, informed decisions. You have the power to take charge of your situation, but to do so, you need to sort through all of the emotions—yours and your loved ones’—and assess all of the facts to identify a solution that will help you get back on track.

As you flip through the following pages, you will find four sections. “Overview of Treatment Options,” “Questions to Ask Your Doctor,” “Selecting Your Treatment Hospital,” and, most importantly, the final piece entitled the “Decision Manual.”

*The Decision Manual is not for everyone.* It is a worksheet we offer you, to help you gain control and take a more active role in the decision-making process. It requires you to begin asking questions—hard questions—that help you identify what you are looking for in a hospital and a physician(s), the goals and expectations you bring to the treatment process, and the steps you need to take to make your goals a reality. If this sounds different to you, it’s because it *is* different! We believe you *must* be a key player and a decision-maker.

At the very least, the *Gynecologic Cancer Kit* contains useful information about hospitals, treatment options and questions you may use to assess the doctors and hospitals you visit throughout this experience. Good luck!

Overview of Treatment Options

Today, more than ever, women have access to an array of gynecologic treatment options. The sheer number of available options makes understanding the basic treatments an extremely important component of your decision-making process. Exploring this wide range of treatment options requires a *general* understanding of three traditional treatment modalities—surgery, radiation therapy and chemotherapy. New, emerging therapies constitute a fourth group of therapies you may examine prior to selecting the treatment option that's right for you.

An Important Note on Gynecologic Cancer Staging

Deciding upon a course of treatment may be the hardest, yet most important life choice you make during this time. Making educated treatment decisions begins by learning about the stage, or progression, of cancer in your body. Staging is critical because it helps you and your doctor determine the right treatment options for you. One way you can impact this process is to seek out second or third medical opinions from different oncologists. Like a system of checks-and-balances, obtaining a second or third medical opinion assures you the type of treatment your original oncologist recommends receives the support of another expert in the same field.

The United States currently uses the *TNM staging method* to stage cancer. TNM stands for “Tumor,” “Node” and “Metastasis.” Properly staging a gynecologic cancer requires the know-how of a *Pathologist*—a doctor with special training and expertise in analyzing human cell structure. Using a microscope, the pathologist closely examines your
tissue samples, documenting cell structure, tumor size and evidence of lymph node involvement. Before handing this pathologic information to the gynecologic oncologist, the pathologist assigns a tumor Grade (G). The tumor grade reflects the appearance of the cancer cells under the microscope. A cancer cell that appears very similar to a normal, healthy cell is said to be well-differentiated (G1). In contrast, an undifferentiated (G4) cancer cell might have an altogether different size, shape or appearance than a normal cell. More aggressive tumors generally contain a high number of undifferentiated cancer cells.

Combining this pathologic information with data obtained from surgery and other scans, helps the gynecologic oncologist determine the overall progression, or stage, of cancer in your body. Inserting the information reflecting Tumor, Node, Metastasis and Grade into a comparative table helps your doctor consolidate this information into a Roman numeral that indicates the extent of your disease. The Roman numerals 0, I, II, III and IV represent the various stages of cancer, with Stages 0 and I representing early stage cancers and Stages III and IV representing late stage cancers. Different stages of cancer call for different treatments.

The following sections present a general overview of treatment procedures used to treat gynecologic cancers.

**Treatment Differentiation**

Here is some basic information about the four treatment categories.

**Surgery**

Surgery is the oldest and, perhaps, the most widely practiced form of cancer treatment. Nearly sixty percent of all cancer patients undergo some form of surgical treatment. The reason for this is that often the simplest way to eliminate cancer is to just remove it surgically. Surgery is often used in conjunction with radiation therapy and/or chemotherapy. Before pursuing surgical treatment, you should always obtain a second medical opinion from a different gynecologic oncologist. You may want to seek additional opinions from a radiation oncologist and/or a medical oncologist to compare, contrast and choose your best possible option from this comprehensive array of opinions.

Surgery is permanent—therefore, it is critical for care providers to conduct thorough laboratory and diagnostic work before and during surgery, to ensure the cancer is confined to the surgical area.

Here’s a brief listing of gynecologic surgical procedures:

- **Total Hysterectomy** – A total hysterectomy is an inpatient procedure that involves the surgical removal of your uterus, cervix, both ovaries and both fallopian tubes. The surgeon may also remove lymph nodes from your pelvis and abdomen to test for cancerous cells.

- **Radical Hysterectomy** – A radical hysterectomy is an inpatient procedure that includes the surgical removal of your uterus, cervix, fallopian tubes, ovaries and part of the vagina. The surgeon also removes lymph nodes from the surrounding area to test for cancerous cells.

- **Laparoscopic Hysterectomy** – A laparoscopic hysterectomy is a called a “minimally invasive” procedure that is conducted on an inpatient basis. Using a laparoscope—a viewing instrument inserted through three or four small incisions—the surgeon severs and removes your uterus, fallopian tubes and ovaries through one of the other existing incisions. Surgeons may also remove surrounding lymph nodes to test for cancerous cells.

- **Loop Electrosurgical Excision Procedure (LEEP)** – A LEEP is an outpatient procedure using an electrically-charged wire loop to slice off the outermost layer of your cervix.

- **Surgical Conization** – Surgical conization is an outpatient procedure involving the removal of a cone-shaped section of tissue from your cervix. Surgeons may use either a scalpel or a laser to remove this tissue.

**Radiation Therapy**

There are two types of radiation therapy—internal and external. Both forms irradiate localized regions of your body. External radiation works by utilizing high-powered X-rays, gamma rays or electron beam radiation to target and destroy rapidly dividing cancerous cells located in a specific site of your body. Internal radiation employs tiny radioactive seeds, pellets, capsules or needles to deliver an internal dose of radiation for a predetermined period of time.

Recent technological advances in diagnostic imaging machinery allow Radiation Oncologists—doctors who specialize in the planning and delivery of radiation therapy—to map a cancerous site and deliver precise beams of radiation right where you need it most. Differences do exist in the quality of radiation equipment; therefore, you should always look for a treatment facility with the latest diagnostic equipment and radiation machinery. Radiation therapy is
often used in conjunction with surgery and/or chemotherapy.

Some forms of gynecologic radiation therapy permanently damage the ovaries, inhibiting your natural ability to produce the female sex hormone estrogen. Since menopause—the stage in a woman’s life when the ovaries gradually secrete less and less estrogen—does not usually occur until a woman’s late 40s or early 50s, pre-menopausal women receiving radiation therapy for gynecologic cancers may require hormone replacement therapy (HRT). HRT supplies your body with the estrogen levels necessary to prevent bone depletion and heart disease, and common menopausal symptoms like hot flashes and night sweats.

Here’s a brief listing of radiation therapy options:

- **3D Conformal Radiation Therapy** – 3-D conformal radiation therapy is an external form of radiation therapy utilizing computed tomography (CT) planning to image and reconstruct the tumor and surrounding normal tissues in three dimensions using a computer program. This technology allows the radiation oncologist to conform the radiation beam(s) to specific target areas. Because the radiation beams are precisely focused, your nearby normal tissue is spared.

- **Intensity Modulated Radiation Therapy (IMRT)** – IMRT represents an advanced form of external 3D conformal radiation therapy. Employing a powerful computer program to plan the precise dose of radiation in three dimensions, radiation oncologists may vary the intensity and conformance of pencil-thin radiation beams onto specific cancerous sites. Our cancer experts tell us they are able to use higher radiation doses than traditional methods would allow in these areas, and yet spare more of the surrounding healthy tissue, compared to standard radiation therapy.

- **Gynecologic High-Dose-Rate (HDR) Brachytherapy** – Used most commonly in the postoperative treatment of endometrial and cervical cancer and typically combined with external beam radiation, gynecologic HDR brachytherapy places the radiation inside your tumor, tightly focused within the site of the cancer. This technique ensures the maximum radiation dose is given where you need it most, while allowing little radiation to reach the healthy surrounding tissue. In many cases, brachytherapy is an effective alternative to surgical removal of a tumor and the affected organ. In addition, the entire treatment takes one and a half days instead of 57 weeks.

**Chemotherapy**

Chemotherapy is a broad term relating to a group of medications designed to damage a cancer cell’s ability to grow. Medical Oncologists—doctors who specialize in treating cancer with different types of drugs and chemotherapy—oversee this aspect of cancer treatment. You may receive chemotherapy orally or through an intravenous (IV) administration. Unlike radiation therapy, conventional chemotherapy is a systemic treatment carried throughout your entire body by the bloodstream. New medications help to control side effects, and, with the proper comprehensive team of experts, the side effects can often be managed and minimized. Chemotherapy is often used in conjunction with surgery and/or radiation therapy.

Today, you and your doctors may choose from an array of chemotherapies. Each unique case requires the oncologist to identify the most effective form of chemotherapy available to treat your particular form of gynecologic cancer. Determining the appropriate chemotherapy sometimes requires oncologists to test tissue samples for chemosensitivity. Chemosensitivity testing reveals how your cancer cells react to various chemotherapeutic agents prior to administering the actual dose. Information obtained via chemosensitivity testing allows the oncologist to select only those chemotherapeutic agent(s) showing positive results when delivered to your tissue samples.

A brief listing of chemotherapy options follows:

- **Intraperitoneal Chemotherapy** – Intraperitoneal Chemotherapy involves flooding the peritoneal sac—the lining within your abdomen—with chemotherapy. Used particularly in the treatment of ovarian cancer, intraperitoneal chemotherapy pools a concentrated amount of heated chemotherapeutic agent in the peritoneal sac, “washing” the area in a chemotherapy bath.

- **Fractionated Dose Chemotherapy** – This method differs from conventional chemotherapy in that the total dose of your chemotherapy is broken into smaller amounts and administered over a five-day period, rather than a single larger dose. This helps you by maximizing the dose intensity and exposing cancer cells within your body to the drugs for a longer period of time, while reducing some of the unpleasant side effects of chemotherapy.

- **Intra-arterial Infusion of Chemotherapy** – This treatment can deliver a higher response rate than chemotherapy that is given orally or intravenously. It can be used for any tumor with a blood supply that can be
isolated by experienced angiographers. If you have recurrent cervical cancer, you may be a candidate for intra-arterial infusion. This procedure delivers high doses of chemotherapy drugs directly to your tumor, through a catheter carefully guided into the artery that supplies the area with blood. This causes less damage to healthy tissue in other areas of your body.

**Emerging Therapies**

In the hands of a skilled physician, emerging therapies represent promising new treatment options available in select hospitals across the country. *Immunotherapy, bone marrow transplant (BMT), hormonal therapy, photodynamic therapy (PDT), hyperthermia* and *arterial embolization* illustrate some of the more prominent emerging therapies now available to you. You and your physicians may turn to emerging therapies in three different situations: after exhausting all surgical, radiation and/or chemotherapy options; when your physician determines traditional therapies will no longer improve your condition; or when you may benefit from an emerging therapy used in conjunction with other conventional treatments.

A brief listing of emerging therapies follows:

- **High-Dose Chemotherapy Followed by Autologous (from the self) Bone Marrow Transplantation (ABMT)** – High-dose chemotherapy followed by ABMT utilizes higher-than-conventional doses of chemotherapy to destroy rapidly-dividing cancer cells in your bloodstream. Since chemotherapy is a *systemic* therapy, this treatment affects other healthy cells within your body, including your bone marrow—the spongy tissue located *inside* of your bones responsible for producing *stem cells*. Stem cells are important because they produce red blood cells (responsible for transporting oxygen), white blood cells and lymphocytes (responsible for defending against infection) and platelets, which prevent bleeding.

  Originally developed to treat leukemia and similar cancers of the blood, BMT allows you to undergo higher doses of chemotherapy than you might otherwise be able to tolerate. Prior to receiving high-dose chemotherapy, you would undergo an *autologous stem cell harvest*, meaning stem cells are collected directly from your own blood stream and immediately frozen. After completing chemotherapy, you then receive an infusion of healthy stem cells, enabling your body to begin manufacturing its own blood cells. *Allogeneic* bone marrow transplant refers to the method of receiving stem cells from a donor.

**Special Services**

Apart from the four main treatment modalities, you should also consider pain management and *palliative care* services.

**Palliative Care**

Palliative Care is a specialized form of medicine, focused upon alleviating pain, nausea or any number of other side effects you may experience during treatment. Few hospitals offer a dedicated Palliative Care Department—but regardless of this trend, effectively managing your pain is necessary for optimal treatment. Unmanaged pain may interfere with your sleep patterns, appetite and treatment schedule. You should inquire about the Palliative Care or Pain Management programs available in any hospitals you consider for treatment.