

The Curtis and Elizabeth Anderson Cancer Institute at Memorial University Medical Center

Inside the ACI

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By John Duttenhaver, M.D., Interim Director
CURTIS AND ELIZABETH ANDERSON CANCER INSTITUTE
AT MEMORIAL UNIVERSITY MEDICAL CENTER

Taking Aim at Ovarian Cancer

The gynecologic oncology program at the Curtis and Elizabeth Anderson Cancer Institute (ACI) at Memorial University Medical Center is the only program in the region that specializes in cancer of the female reproductive organs. Multiple published studies have demonstrated a survival advantage for patients who have their initial ovarian cancer surgery done by a board-certified gynecologic oncologist. At the ACI, we have not one, but two board-certified gynecologic oncology surgeons: James Burke, M.D., and Scott Purinton, M.D., Ph.D.

Our team of ovarian cancer experts works with each patient to develop a personalized treatment plan. Those plans often include participation in a national research trial sponsored by the Gynecologic Oncology Group. Over the years, the ACI has been one of the most active participants in the Gynecologic Oncology Group, offering leading-edge research to the majority of our ovarian cancer patients.

We use the latest technology to diagnose and treat both early stage and recurrent ovarian cancers. Patients are staged with the most up-to-date technology available anywhere. Surgery is often performed using the da Vinci Si robotic surgical system to minimize side effects and toxicity. After surgery, our patients find everything they need to treat the whole person – from advanced chemotherapy to integrative therapies such as acupuncture, massage therapy, music, and art therapy.

At the ACI, our skilled physicians, nurses, dietitians, and other health professionals are dedicated to providing the highest quality and quantity of life for women diagnosed with ovarian cancer.



The Genetics of Ovarian Cancer

As reported by the Ovarian Cancer National Alliance, the following symptoms are much more likely to occur in women with ovarian cancer than in the general population – even in early stage ovarian cancer. The symptoms include:

- Bloating
- Pelvic or abdominal pain
- Difficulty eating or feeling full quickly
- Urinary symptoms (urgency or frequency)

Women at increased risk for ovarian cancer should be especially conscious of their bodies' norm and be aware of these symptoms.

There are a number of risk factors for ovarian cancer including:

- Age – most women are over age 55 when diagnosed with ovarian cancer
- Uninterrupted ovulation – never used birth control pills or no pregnancies
- Multiple exposures to fertility drugs or hormone replacement therapy of unopposed estrogen
- Family history

Family history is the strongest risk factor for ovarian cancer. Women who have a mother, daughter, or sister with ovarian cancer have approximately a three-fold increased risk of getting the disease. Also, women with a personal or family history of cancer of the breast, uterus, colon, or rectum may have an increased risk of ovarian cancer.

- Hereditary breast and ovarian cancer syndrome is the result of a BRCA1 or BRCA2 gene mutation. The breast cancer risk is elevated to 87 percent and the ovarian cancer risk is up to 44 percent and 27 percent for the BRCA1 and BRCA2 genes, respectively.
- Hereditary nonpolyposis colorectal cancer (HNPCC/Lynch syndrome) is the result of mutations in mismatch repair genes such as MLH2, MSH2 and MSH6. Mutations in these genes pose an 80 percent risk for colorectal cancer, up to a 60 percent risk for uterine cancer, and approximately a 12 percent risk for ovarian cancer, among others.

At least 10 percent of all epithelial ovarian cancers are hereditary, with mutations in the BRCA genes accounting for approximately 90 percent of cases and most of the remaining 10 percent attributable to Lynch syndrome. No routine screening test exists for ovarian cancer. However, for women at increased risk, doctors may monitor them semiannually with the CA-125 blood test, transvaginal ultrasound, and pelvic exam. The gold standard for risk reduction is surgical removal of both ovaries and fallopian tubes, called prophylactic bilateral salpingo-oophorectomy. This surgery lowers ovarian cancer risk dramatically but does not entirely eliminate it. The salpingo-oophorectomy should be performed when a woman has completed childbearing, preferably by her early 40s.

If you or someone in your family has a history of ovarian cancer, you may want to consider genetic counseling in order to better understand your cancer risks. To request an appointment at the Center for Cancer Genetics at the Curtis and Elizabeth Anderson Cancer Institute at Memorial University Medical Center, call 912-350-0926.



By Scott Purinton M.D., Ph.D., FACOG
GYNECOLOGIC ONCOLOGIST

Understanding Ovarian Cancer

Ovarian cancer is the most common cause of death among women with gynecologic malignancies and the fifth leading cause of cancer death in women in the United States. Approximately 21,880 cases are diagnosed annually, and there are 13,850 deaths attributable to ovarian cancer each year. The lifetime probability of a woman in the U.S. developing ovarian cancer is less than 2 percent. The incidence of ovarian cancer increases with age, with the highest proportion of cases diagnosed in women 50 to 59 years of age.

Detection and Screening

Interest in early detection as a method of reducing mortality has grown with the discovery of serum tumor markers associated with ovarian cancer and with improved diagnostic accuracy of pelvic ultrasonography. Intensive research is ongoing to identify additional markers and a cost-effective screening strategy. Large-scale clinical trials are in progress to determine whether screening by blood tests and/or ultrasound reduces mortality from ovarian cancer. Until the results of these trials are final, there is a consensus that women at average risk for ovarian cancer should not undergo screening outside these clinical trials. Women with a family history of ovarian cancer or ovarian cancer syndromes have a higher risk of getting the disease. Evidence suggests screening is appropriate for some of these women. Screening recommendations for higher-risk women depend on whether or not there is a known or suspected hereditary cancer syndrome.

Survival from ovarian cancer is related to the stage at diagnosis. Five-year survival is more than 90 percent for women with stage I disease (confined to the ovary). Unfortunately, a minority of women are diagnosed with early stage disease. This number drops to about 75 to 80 percent for regional disease, and 25 percent for those whose cancer has spread to other parts of the body.



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Despite the good prognosis associated with early stage disease, overall five-year survival in women with ovarian cancer is less than 45 percent. This poor survival rate in large part is due to the spread of cancer beyond the ovary at the time of clinical detection in 75 percent of patients.

Symptoms and Warning Signs

The majority of cases of ovarian cancer are advanced (stage III or IV) at the time of diagnosis. Advanced disease is typically associated with abdominal distention, nausea, anorexia, or early satiety due to fluid build-up. Shortness of breath is occasionally a problem as well, due to fluid in the lungs.

Since there is currently no consensus on screening guidelines, it is imperative that women be aware of the symptoms associated with ovarian cancer. Symptoms of early stage disease are often vague and ill-defined, and may not be severe or specific enough to prompt a woman to seek medical attention. However, ovarian cancer should be considered in women who have a recent onset of abdominal or pelvic symptoms such as bloating, increased abdominal size, urinary urgency or frequency, difficulty eating, feeling full, and abdominal or pelvic pain. In particular, ovarian cancer should be suspected when these symptoms coexist with other symptoms, occur almost daily, and are more severe than expected. Acute symptoms due to ovarian rupture or twisting are unusual.

Treatment Options

Therapy for newly diagnosed ovarian cancer is determined primarily by disease stage at diagnosis. Approximately 75 percent of women have stage III (disease that has spread throughout the peritoneal cavity or that involves lymph nodes) or IV disease (spread to more distant sites) at diagnosis. A standard approach for these patients is surgery to remove as much of the tumor as possible, followed by platinum and taxane-based chemotherapy. However, initial chemotherapy may be appropriate for patients considered unsuitable for a prolonged surgery or whose disease is too extensive to be removed with surgery.

The remaining 25 percent present with stage I (disease confined to the ovary) or II disease (tumor beyond the ovary, but confined to the pelvis). These patients are managed initially with surgery. Further therapy is generally not recommended for women with well or moderately well differentiated stage I tumors as five-year disease-free and overall survival rates are greater than 90 percent. For women with high-risk stage I and stage II ovarian cancer, the addition of platinum and taxane-based chemotherapy significantly reduces the likelihood of disease relapse.



By James Burke, II, M.D.
GYNECOLOGIC ONCOLOGIST

Clinical Trial Participation Changes Ovarian Cancer Care

The catch phrase in medicine over the last several years has been “evidence-based medicine.” Simply put, this means delivering quality medical care supported by real results from clinical studies. In oncology, advances in cancer care have been driven by clinical trials that are conducted by cooperative groups, such as the Gynecologic Oncology Group (GOG), and supported by the National Cancer Institute. Despite improvements in survival and changes in cancer treatment standards, both of which are directly attributed to clinical trial outcomes, only 3 to 5 percent of adult cancer patients participate in a cancer clinical trial when offered.

Results from clinical trials conducted by the GOG and others over the last three decades have improved survival for ovarian cancer patients. In 1976, women with ovarian cancer often lived only 12 months, compared to 2006 when survival increased to 66 months. In the late 1970s, the drug cisplatin came onto the scene and was found to have clinical activity against ovarian cancer. During the 1970s and 1980s, several other drugs were combined with cisplatin, such as doxorubicin and cyclophosphamide, each time increasing survival and changing the treatment standard. Again, clinical trials showed that reducing the number of chemotherapy treatments for ovarian cancer from 12 to six, reduced the side effects of treatment, but did not compromise survival. Further, by direct head-to-head comparisons through clinical trials, increasing the dose of cisplatin did not improve survival, but did increase side effects, confirming that the lower dose was adequate treatment.

In the 1980s and 1990s, research and development for compounds that worked against ovarian cancer advanced. Enter paclitaxel (Taxol®). This drug was heralded as the “magic bullet” for treatment of ovarian cancer. A clinical trial called GOG 111, compared paclitaxel and cisplatin to cisplatin and cyclophosphamide. It showed that women with ovarian cancer (with residual bulky disease) lived 12 months longer with the regimen with paclitaxel over the standard cisplatin/cyclophosphamide treatment. The results of this clinical trial changed the standard of care for ovarian cancer chemotherapy.

Throughout the 1990s different ways of administering chemotherapy were studied; it seemed to reason that putting the chemotherapy directly into the abdomen, where the cancer is, would be successful. In 2006, GOG 172, a clinical trial which compared intravenous (IV) and intra-peritoneal [IP] (abdomen) administration of chemotherapy to IV chemotherapy alone showed that the IV/IP route improved survival over the IV alone by 22 months. This route of administration and increase in survival was for women with very minimal residual ovarian cancer after their initial surgery. However, the improved survival did come at the expense of many more side effects from the IV/IP treatment.

As science has advanced, so has our knowledge of certain pathways, vital for cancer survival, growth, and spread. Compounds called biologic agents have now been developed to block some of these pathways and kill cancer cells. The GOG has embarked on several clinical trials combining these novel, biologic agents with traditional chemotherapy. Final results from those clinical trials are not available yet, but preliminary results have demonstrated increased survival. Clinical trials have changed and will continue to change cancer care. These trials will weed out which treatments work, which treatments have increased side effects with little benefit, and which treatments change the standard of care. Although people have reservations about participating in clinical trials, several studies have shown that patients who do participate, on average, have better survival. Clinical trials in the 2000s are better controlled and monitored than in any other previous decade. Patients who participate in clinical trials are real healthcare heroes, as they are changing cancer care through evidenced-based medicine, not only for themselves, but also for patients who come after them.



By Pat Sharpe, MSN, MHSA
DIRECTOR, CLINICAL RESEARCH

Ovarian Cancer Clinical Trials

Frequently referred to as the “disease that whispers” because of the subtlety of its symptoms in the early stage, ovarian cancer accounts for 3 percent of all gynecologic cancers. Ovarian cancer is a disease that occurs primarily in post-menopausal women. When diagnosed early, the five-year survival rate for ovarian cancer can be as high as 90 percent.

The Curtis and Elizabeth Anderson Cancer Institute (ACI) at Memorial University Medical Center offers clinical trials to help improve ovarian cancer treatment. Many of our trials focus on new treatments, evaluating their safety and effectiveness, and determining whether they are better than the current treatment. Clinical trials may offer new drugs, different combinations of existing treatments, new approaches to radiation therapy or surgery, or entirely new methods. Patients who participate in clinical trials are often among the first to receive treatments before they are widely available.

Since 1996, the Gynecologic Oncology Group (GOG), a National Cancer Institute-funded cooperative clinical trial group, has had a presence here at the ACI. We recently partnered with the Georgia Center for Oncology Research and Education (CORE) and the GOG to form a statewide network for offering gynecologic clinical trials. The following clinical trials are available at the ACI:

BI 1199-15: Multicenter, randomized, double-blind Phase III trial to investigate the efficacy and safety of BIBF 1120 in combination with Carboplatin and Paclitaxel compared to placebo plus Carbopatin and Paclitaxel in patients with advanced ovarian cancer.

EC-FV-06: A Randomized Double-Blind Phase III Trial Comparing ED145 and Pegylated Liposomal Doxorubicin (PLD/DOXIL/CAELYX) in combination versus PLD in Participants with Platinum-Resistant Ovarian Cancer. – Open March 1.

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GOG 0187: Phase II Study of Paclitaxel for Ovarian Stromal Tumors as Second-Line Therapy.

GOG 0212: A Randomized Phase III Trial of Maintenance Chemotherapy Comparing 12 Monthly Cycles of Single Agent Paclitaxel or Xyotax (CT-2103)(IND #70177), Versus No Treatment Until Documented Relapse in Women with Advanced Ovarian or Primary Peritoneal Cancer Who Achieve A Complete Clinical Response to Primary Platinum/Taxane Chemotherapy.

GOG 0213: A Phase III, Randomized, Controlled Clinical Trial of Carboplatin and Paclitaxel Alone or in Combination with Bevacizumab Followed by Bevacizumab and Secondary Cytoreductive Surgery in Platinum-Sensitive, Recurrent Ovarian, Primary Peritoneal and Fallopian Tube Cancer. NCI-SUPPLIED AGENTS: BEVACIZUMAB.

GOG 0214: Phase II Double Blind Randomized Trial Evaluation of the Biologic Effect of Levonorgestrel on the Ovarian Epithelium in Women at High Risk for Ovarian Cancer.

GOG 0252: Phase III Clinical Trial of Bevacizumab with IV versus IP Chemotherapy in Ovarian, Fallopian Tube, and Primary Peritoneal Carcinoma.

GOG 0262: Randomized Phase III Trial of Every-3-Weeks Paclitaxel versus Dose Dense Weekly Paclitaxel in Combination with Carboplatin with or without Concurrent and Consolidation Bevacizumab in the Treatment of Primary Stage III or IV Epithelial Ovarian, Peritoneal, or Fallopian Tube Cancer.

MORAb-003-003PR: A Randomized, Double-Blind, Placebo-Controlled Study of the Efficacy and Safety of MORAb-003 (Farletuzumab) in Combination with Paclitaxel Therapy in Subjects with Platinum-Resistant or Refractory Relapsed Ovarian Cancer.

MORAb-003: A Randomized, Double-Blind, Placebo-Controlled, Phase III Study to Assess the Efficacy and Safety of Weekly Farletuzumab (MORAB-003) in Combination with Carboplatin and Taxane in Subjects with Platinum-Sensitive Ovarian Cancer in First Relapse.

To learn more about clinical trials at the ACI, call 912-350-8707.