We have come a long way in the treatment of cervical cancer. Pap smears have reduced deaths from this disease by 74% since 1950. Surgical treatment for early-stage disease has also evolved dramatically during this time. We now strive to provide the best possible cancer treatment results with the least impact on the patient’s life.

In the Gynecologic Oncology Division at the University of Wisconsin Medical School, we take the quality of survivorship very seriously. I see it as our role to learn and research cutting-edge surgical procedures. Ultimately we can then be the first to provide such advancements to the women of our region.

For many patients, laparoscopic surgery can now be combined with vaginal surgery to offer the same cervical cancer outcomes as a large abdominal incision. This minimally invasive approach includes laparoscopic pelvic lymph node dissection followed by laparoscopically-assisted radical vaginal hysterectomy. The procedure has been shown to have less blood loss, decreased pain, shorter hospital stay, and a faster return to normal activity than abdominal radical hysterectomy.

Another dramatic example is the radical trachelectomy procedure, where a similar laparoscopic procedure is performed, followed by radical removal of the cervix. The uterus is left in place, allowing for future childbearing. Studies to date have shown that the fertility rates are excellent. Even more exciting, the majority of women who get pregnant after this procedure deliver at full-term!

Here at the University of Wisconsin, we are dedicated to researching ways to improve the lives of patients after treatment for gynecologic malignancies. Progress in these areas needs to proceed side-by-side with the development of novel therapeutic strategies against the cancer itself. Please browse our list of current protocols, which covers both aspects of our research program.

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Gynecologic Oncologist
Ellen M. Hartenbach, MD
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David M. Kushnir, MD
Gynecologic Oncologist
Howard H. Bailey, MD
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Radiation Oncologist
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Research Scientist
Lori A. Seaborne, PA-C
Physician Assistant
Margaret R. Straub, PA-C
Physician Assistant
In 2005, an estimated 10,700 new cases of cervical cancer will be diagnosed and approximately 3,710 women will die of this disease in the United States. The impact is even greater in the underdeveloped nations, as cervical cancer is the number one cancer killer of women worldwide. Surgical treatments for early-stage disease have good cure rates, but usually require a complete pelvic lymphadenectomy, which can cause leg lymphedema. Identification and removal of the first draining lymph node from a cancer (the Sentinel Lymph Node or SLN) could theoretically lead to better sensitivity in finding metastases, as well as decreased rates of lymphedema.

The value of modern sentinel lymph node biopsy techniques has been established for melanoma patients, using a combined approach of blue dye and radiocolloid to locate the SLN. Each is injected into the tumor and drains to the lymphatic basin. If the SLN is non-cancerous, no other lymph nodes need to be removed. SLN biopsy is now the standard of care for melanoma patients and quickly gaining popularity in breast carcinoma.

In the field of gynecologic oncology, sentinel lymph node mapping is under extensive investigation in relation to vulvar cancer. Studies have confirmed accuracy in identifying the sentinel nodes, while demonstrating a high negative predictive value. Similar to findings in non-gynecologic disease sites, the vulvar sentinel nodes are better identified with a combination of blue dye and radioactive colloid than with either technique alone. Our team at the University of Wisconsin reported one of the first pilot studies of the combined technique in vulvar cancer patients. We are currently awaiting the results of Gynecologic Oncology Group protocol #173, which will determine the negative predictive value of the combined SLN procedure in vulvar cancer.

The technique of SLN biopsy is well suited for patients with cervical cancer. The tumor is readily accessible, and the cervix is thought to reliably drain to the bilateral pelvic lymph node basins. In addition, identification of metastatic tumor at the time of anticipated radical hysterectomy has an immediate impact on treatment. Such patients have the opportunity to avoid an unnecessary hysterectomy, thus preventing the morbidity of combined radical pelvic surgery with postoperative radiation in favor of primary chemoradiation.

The advent of the laparoscopic gamma probe has created the ability to identify the sentinel node using minimally invasive techniques. Laparoscopy offers multiple advantages unique to cervical cancer patients: 1) If the surgery is aborted in favor of chemoradiation, the definitive treatment can begin immediately postoperatively, avoiding the typical 4-6 week delay. 2) The procedure is performed under magnification, making the identification of blue lymph channels and small blue lymph nodes more apparent. 3) Laparoscopic SLN identification allows the use of the procedure at the time of minimally invasive surgery for cervical cancer, including radical vaginal hysterectomy and radical trachelectomy. Both of these procedures include laparoscopic pelvic lymphadenectomy.

The University of Wisconsin Comprehensive Cancer Center is conducting a pilot study, CO 03701, to look at SLN biopsy in cervical cancer. The aim of the study is to evaluate the feasibility and SLN detection rate using the combined blue dye and radiocolloid technique for SLN detection in patients with early-stage cervical cancer undergoing primary surgical treatment. On the morning of surgery, all patients undergo cervical injection with radio-colloid followed by lymphoscintigraphy. Once the patient is under general anesthesia for surgery, blue dye is injected into the cervix and the SLN dissection is completed laparoscopically. All patients subsequently undergo complete laparoscopic lymphadenectomy in order to accurately determine the sensitivity, specificity and positive values of the technique. The radical surgery is then completed if the patient has no evidence of metastases.

Our Featured Protocol

CO 03701: Laparoscopic Sentinel Lymph Node Localization in Patients With Operable Cervical Cancer—A Pilot Study

In 2005, an estimated 10,700 new cases of cervical cancer will be diagnosed and approximately 3,710 women will die of this disease in the United States. The impact is even greater in the underdeveloped nations, as cervical cancer is the number one cancer killer of women worldwide. Surgical treatments for early-stage disease have good cure rates, but usually require a complete pelvic lymphadenectomy, which can cause leg lymphedema. Identification and removal of the first draining lymph node from a cancer (the Sentinel Lymph Node or SLN) could theoretically lead to better sensitivity in finding metastases, as well as decreased rates of lymphedema.

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Protocol Eligibility

- Stage IA1-IIA cervical cancer undergoing primary surgical management
- Good surgical candidate for radical cancer surgery with lymphadenectomy
- Good surgical candidate for laparoscopy
- At least 18 years old
- Prior malignancy with no evidence of disease
- GOG performance status of 0-2
- Not pregnant
- No allergy to dyes
- No evidence of distant metastases
### Ovarian

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<td>Pre-clinical Studies of Glycoconjugate MUC16 in the Diagnosis and Response to Immunotherapy in Epithelial Ovarian Cancer</td>
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<td>CD 04701</td>
<td>Phase II Open-Label Study of SB-715992 in Subjects with Platinum/Taxane-Resistant or Resistant Relapsed Ovarian Cancer</td>
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<td>CD 04702</td>
<td>Phase I Dose-Escalation Study of the Safety, Tolerability, Pharmacokinetics, Biological and Clinical Activity of EMD 275086 Administered with Low-Dose Cyclophosphamide to Subjects with Epithelial Cell Adhesion Molecule (EpCAM) Positive Advanced Cancers</td>
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<td>CD 04705</td>
<td>Phase III Randomized Trial of Gemcitabine/Carboplatin versus Paclitaxel/Carboplatin followed by Elective Paclitaxel Consolidation in Primary Epithelial Ovarian, Peritoneal or Fallopian Tube Cancer</td>
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<tr>
<td>GOG 199</td>
<td>Prospective Study of Risk-Reducing Salpingo-Oophorectomy and Longitudinal CA-125 Screening among Women at Increased Genetic Risk of Ovarian Cancer</td>
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<td>The Incidence of Disseminated Endometrial Cancer Cells During Sonohysterography and Their Functional Viability</td>
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<td>GOG 129-N</td>
<td>Phase II Evaluation of Weekly Docetaxel in the Treatment of Recurrent or Persistent Endometrial Carcinoma</td>
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<td>GOG 130-E</td>
<td>Phase II Evaluation of Docetaxel and Gemcitabine in the Treatment of Recurrent or Persistent Carcinosarcoma of the Uterus</td>
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<td>GOG 131-G</td>
<td>Phase II Evaluation of Docetaxel and Gemcitabine Plus G-CSF in the Treatment of Recurrent or Persistent Leiomyosarcoma of the Uterus</td>
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<td>GOG 209</td>
<td>Randomized Phase III Trial of Doxorubicin/Cisplatin/Paclitaxel and G-CSF versus Carboplatin/Paclitaxel in patients with Stage III &amp; IV or Recurrent Endometrial Cancer</td>
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<tr>
<td>GOG 230-B</td>
<td>Phase II Evaluation of Thalidomide in the Treatment of Recurrent or Persistent Carcinosarcoma of the Uterus</td>
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<tr>
<td>GOG 232-B</td>
<td>Phase II Evaluation of Paclitaxel and Carboplatin in the Treatment of Advanced, Persistent, or Recurrent Uterine Carcinosarcoma</td>
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### Cervical

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<td>CO 02702</td>
<td>Preservation of Ovarian Function via Laproscopic Ovarian Transposition in Patients with Locally Advanced Squamous Cell Carcinoma of the Cervix</td>
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<td>CO 03701</td>
<td>Laparoscopic Sentinel Lymph Node Localization in Patients with Operable Cervical Cancer</td>
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<td>GOG 204</td>
<td>Randomized Phase III Trial of Paclitaxel/Cisplatin versus Vinorelbine/Cisplatin versus Gemcitabine/Cisplatin versus Topotecan/Cisplatin in Stage IIB, Recurrent or Persistent Carcinoma of the Cervix</td>
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<tr>
<td>GOG 9918</td>
<td>Phase I Trial of Tailored Radiation Therapy with Concomitant Cetuximab and Cisplatin in the Treatment of Patients with Cervical Cancer</td>
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### Vulvar

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<tr>
<td>GOG 205</td>
<td>Phase II Trial of Radiation Therapy and Weekly Cisplatin Chemotherapy for the Treatment of Locally-Advanced Squamous Cell Carcinoma of the Vulva</td>
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### For more information about these clinical trials at the UW Comprehensive Cancer Center, contact Cancer Connect, (800) 622-8922 or (608) 262-5225 in the Madison area. A complete listing of all clinical trials at the UW Comprehensive Cancer Center is also available on our website, www.cancer.wisc.edu.  

### UW Gynecologic Oncology Research Staff
- Linda S. Harris, Research Program Manager
- Sarah L. Stewart, Clinical Research Associate
- Lisa A. Kietzer, Clinical Research Associate
An experimental vaccine has been shown to be highly effective at preventing HPV infections, the cause of cervical cancer.

UW sees more than 400 new patients per year with gynecologic cancers.

Minimally invasive surgery is the wave of the future for endometrial cancer.

Doctors at UW are working on a new clinical trial involving immune therapy in ovarian cancer.

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