

BRIEFINGS FROM WOMEN'S HEALTH EXPERTS



A Guide to Gynecologic Cancer Follow-up

by Kathryn Mills, MD

Gynecologic Oncology, OB/GYN

Assistant Professor of Obstetrics and Gynecology

The number of women who survive gynecologic cancers and are under surveillance is expected to increase as a result of improvements in the detection and treatment of these malignancies. Therefore, it is necessary to put systems in place for appropriate follow-up in a cost-effective manner so that members of the health care team can ensure the early identification of recurrent disease, improve the management of symptoms related to initial therapies, and provide short- and long-term psychosocial support.¹

Endometrial Cancer

With an estimated 62,000 new cases in the United States in 2019, endometrial cancer is the most commonly diagnosed cancer of the female reproductive tract. Approximately 2-5% of these cases may be attributable to inheritance of a mutation in DNA mismatch repair genes (Lynch syndrome).² Fortunately, endometrial cancer is often diagnosed at an early stage, and, therefore, has a greater than 80% five-year overall survival rate. In general, the majority of patients can be managed with surgery, with or without adjuvant radiation or chemotherapy. The Society of Gynecologic Oncology (SGO) recommends an intensive follow-up schedule of every 3-6 months in the first 2-3 years,³ since most studies indicate that recurrence risk is higher in this initial time period.⁴ The majority of patients with recurrent disease develop symptoms such as vaginal bleeding, lethargy and weight loss. Therefore, a thorough history should be taken at each visit to ensure that no new, suspicious symptoms have developed. In addition, since the most likely location for recurrence is at the vaginal cuff where the disease may be curable, physical examination that includes visualization of the upper vagina and digital vaginal and rectal palpation is critical at surveillance visits. At this time, any suspicious areas identified can be sampled. Routine upper vaginal pap smears, however, are not recommended.⁵ Based on the low risk of recurrence, it is appropriate for many low-risk patients to return to their general gynecologist for follow-up visits, even in the first few years of survivorship. Patients may also elect to alternate visits between their gynecologist and gynecologic oncologist, easing the burden of travel for those who live long distances from their treating oncologist. There is no routinely

recommended blood test or imaging test for surveillance in endometrial cancer survivors, but tests should be ordered based on reported symptoms.

Ovarian Cancer

Ovarian cancer, which also includes as a disease entity fallopian tube cancer and primary peritoneal cancer, is a less common disease, representing only about 1.3% of all cancers diagnosed in the United States in 2019. It is, however, more deadly. Because most patients initially present at advanced stage, it has an overall 5-year survival rate of under 50%.⁶ All patients with this diagnosis (except mucinous ovarian cancer) should undergo germline genetic testing, as 20-25% of cases may be attributable to a genetic mutation. After surgery and chemotherapy, most patients experience clinical remission, but as many as 80% of advanced stage patients will experience a recurrence. This statistic highlights the importance of gynecologic follow-up visits as, even in the setting of recurrence, many patients will have an excellent response to second-line therapy. Moreover, given the impressive 70% improvement in progression-free survival that has been demonstrated with poly (adenosine diphosphate-ribose) polymerase (PARP) inhibitors in the upfront maintenance setting for patients carrying BRCA germline or somatic tumor mutations,⁷ the number of patients in active surveillance for a longer period of time may increase. As in endometrial cancer, a thorough history and physical exam should be performed at surveillance visits, including a pelvic examination. Use of CA-125 blood tests should be discussed with patients in surveillance, especially if this marker was elevated at the time of diagnosis,³ but detecting an ovarian cancer chemical recurrence early by CA-125 will, unfortunately, not change the overall survival of the patient. Routine "surveillance" imaging with CT or ultrasound, is also not recommended in asymptomatic patients.¹ Given the complexity and challenging nature of ovarian cancer, these patients should follow with their gynecologic oncologist every 3-4 months for the first two years, and then every 4-6 months until five years post treatment, at which time they may transition back to the care of a general gynecologist if they remain disease free.³

(continued from page 1)

Cervical Cancer

The rate of cervical cancer has dramatically decreased secondary to routine cervical pap smear testing.⁸ Still, 13,000 new cases were identified and over 4,000 deaths occurred in the United States in 2019.⁶ As the uptake of HPV vaccination increases, the rate of cervical cancer will hopefully continue to decline. While many cervical cancers are found at an early stage, often with only microscopic foci of disease, stage 3 and 4 cervical cancer makes up approximately 50% of cases diagnosed.⁶ The most typical time for recurrence is within the first 24-48 months after definitive therapy.⁹ Therefore, closer interval follow-up of every 3-6 months during that time is recommended.³ This visit should include evaluation for symptoms of recurrence and especially focus on pain, leg swelling, new vaginal bleeding and weight loss. Both visual examination and digital vaginal and rectal palpation should be performed. Vaginal pap smears may provide early detection of lower genital tract disease, but should be limited to once a year. Any abnormal appearing area should be directly biopsied. Surveillance pap smears may be unsatisfactory or show atypical cells consistent with radiation change if the patient received definitive radiation. It is recommended that colposcopy be performed only for findings on cytology of greater than low-grade changes.¹⁰

Many patients will have long-term sequelae from radiation to the vagina and pelvis, such as bladder and bowel dysfunction, vaginal stenosis, dryness, dyspareunia and lymphedema. Surveillance visits should be used to identify these issues and address them appropriately. Routine imaging without clinical indication is not recommended.

Vulvar and Vaginal Cancers

Vaginal and vulvar carcinomas remain exceedingly rare and, as in cervical carcinoma, HPV infection is thought to play a large role in their development.^{11,12} Standard therapies involve surgical resection and/or directed radiation therapy. Early stage disease generally has good outcomes, while distant or recurrent disease has a very poor prognosis. Due to the rarity of these malignancies, few long-term surveillance strategies have been published and the National Comprehensive Cancer Network (NCCN) only provides site-specific guidelines for vulvar cancer.¹³ We perform a physical examination with detailed symptom elicitation every 3-6 months for the first two years, followed by visits at increasing intervals.³ Smoking cessation should be recommended. Of note, vulvar and vaginal recurrences may not be true “recurrences” at all, but instead arise from new areas of primary disease, since dysplasia is often multifocal and may arise in any area of the female genital tract.¹⁴ Therefore, careful examination of the vulva and vagina is warranted at visits, and acetic acid and/or Lugol’s iodine application should be considered.

Summary

As the numbers of cancer survivors increase, it becomes increasingly important to be aware of recommended guidelines for survivorship care. We also need to ensure that adequate follow-up instructions and survivorship care plans are provided to patients as they transition back into the care of non-specialist providers. Patients whose cancers are attributable to inheritance of a genetic mutation may need to undergo surveillance for other cancers in the genetic syndrome. An additional concern is that the prevalence of sexual dysfunction in cancer survivors is high and often underreported. Therefore, we should make it a priority to discuss sexual health resources and therapies with our patients.¹⁵ Patients who have undergone radiation therapy are also at risk of developing pelvic fractures, which makes attention to bone mineral density testing and pharmacologic intervention to prevent osteoporosis important.¹⁶ With improvements in therapies and knowledge, combined with open lines of communication between patients and their providers, and these providers with each other, we may be able to help our patients thrive as well as survive after a cancer diagnosis and treatment.

Summary of Best Practices for Cancer Surveillance

Cancer Type	Clinical Exam	Pap Smear	Routine Imaging	CA-125
Endometrial	Visualization of vaginal cuff and digital vaginal and rectal examination	No	No	Yes, if elevated prior to surgery
Ovarian	Visualization of vaginal cuff and digital vaginal and rectal examination	No	No	Yes, if elevated prior to surgery
Cervical	Digital vaginal and rectal examination	Yes - annually. Colposcopy if > LGSIL	No	No
Vulva/Vagina	Exam with acetic acid or Lugol's	Yes	No	No

- » Tobacco cessation counseling and/or medications should be offered to all patients with cancers
- » Sexual dysfunction is common. Discuss openly and offer resources.
- » Discuss weight management, good nutrition and exercise
- » Ensure genetic testing is performed in appropriate patients if not done previously
- » With increased survival, many patients may graduate from care by their oncologist to resume long-term care with their primary gynecologist.

To schedule a patient, e-mail us at womenshealth@uchospitals.edu
or call **773-702-6118**

Urgent appointments are also available.

UChicagoMedicine.org/womens-health

1. Elit L, Reade CJ. Recommendations for Follow-up Care for Gynecologic Cancer Survivors. *Obstetrics & Gynecology*. 2015;126(6):1207-1214.
2. Meyer LA, Broaddus RR, Lu KH. Endometrial cancer and Lynch syndrome: clinical and pathologic considerations. *Cancer Control*. 2009;16(1):14-22.
3. Salani R, Khanna N, Frimer M, Bristow RE, Chen L-m. An update on post-treatment surveillance and diagnosis of recurrence in women with gynecologic malignancies: Society of Gynecologic Oncology (SGO) recommendations. *Gynecologic Oncology*. 2017;146(1):3-10.
4. Fung-Kee-Fung M, Dodge J, Elit L, Lukka H, Chambers A, Oliver T. Follow-up after primary therapy for endometrial cancer: A systematic review. *Gynecologic Oncology*. 2006;101(3):520-529.
5. Salani R, Nagel CI, Drennen E, Bristow RE. Recurrence patterns and surveillance for patients with early stage endometrial cancer. *Gynecologic Oncology*. 2011;123(2):205-207.
6. National Cancer Institute: Cancer Stat Facts. <https://seer.cancer.gov/statfacts/>. Published 2019. Accessed 2/26/2020, 2020.
7. Moore K, Colombo N, Scambia G, et al. Maintenance Olaparib in Patients with Newly Diagnosed Advanced Ovarian Cancer. *New England Journal of Medicine*. 2018;379(26):2495-2505.
8. Cervical Cancer Statistics. <https://www.cdc.gov/cancer/cervical/statistics/index.htm>. Published 2019. Updated 5/28/2019. Accessed.
9. Elit L, Fyles AW, Oliver TK, Devries-Aboud MC, Fung-Kee-Fung M. Follow-up for women after treatment for cervical cancer. *Current Oncology*. 2010;17(3):65-69.
10. Rimel BJ, Burke WM, Higgins RV, Lee PS, Lutman CV, Parker L. Improving quality and decreasing cost in gynecologic oncology care. Society of gynecologic oncology recommendations for clinical practice. *Gynecologic Oncology*. 2015;137(2):280-284.
11. Daling JR, Madeleine MM, Schwartz SM, et al. A Population-Based Study of Squamous Cell Vaginal Cancer: HPV and Cofactors. *Gynecologic Oncology*. 2002;84(2):263-270.
12. Smith JS, Backes DM, Hoots BE, Kurman RJ, Pimenta JM. Human Papillomavirus Type-Distribution in Vulvar and Vaginal Cancers and their Associated Precursors. *Obstetrics & Gynecology*. 2009;113(4):917-924.
13. Vulvar Cancer (Squamous Cell Carcinoma). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) Website. https://www.nccn.org/professionals/physician_gls/pdf/vulvar.pdf. Updated 1/29/2020. Accessed 3/3/2020.
14. Nooij LS, Brand FAM, Gaarenstroom KN, Creutzberg CL, de Hullu JA, van Poelgeest MIE. Risk factors and treatment for recurrent vulvar squamous cell carcinoma. *Critical Reviews in Oncology/Hematology*. 2016;106:1-13.
15. Bodurka DC, Sun CC. Sexual Function after Gynecologic Cancer. *Obstetrics and Gynecology Clinics of North America*. 2006;33(4):621-630.
16. Schmeler KM, Jhingran A, Iyer RB, et al. Pelvic fractures after radiotherapy for cervical cancer: implications for survivors. *Cancer*. 2010;116(3):625-630.

GYNECOLOGIC CANCER FOLLOW-UP

Referrals and consultations

Call **773-702-6118**

Email womenshealth@uchospitals.edu

LOCATIONS

Hyde Park

Duchossois Center for
Advanced Medicine (DCAM)

5758 S. Maryland Ave.

Third Floor

Chicago, IL 60637

New Lenox

1850 Silver Cross Blvd.

New Lenox, IL 60451

Orland Park

14290 S. La Grange Road

Third Floor

Orland Park, IL 60462

Schererville

222 Indianapolis Blvd.

Schererville, IN 46375



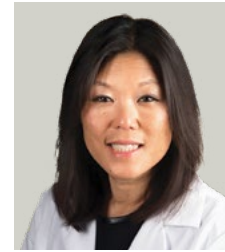
Ernst Lengyel, MD, PhD

*Chairman, Department of Obstetrics
and Gynecology*

*Arthur L. and Lee G. Herbst Professor
of Obstetrics and Gynecology*

elengyel@bsd.uchicago.edu

Hyde Park



S. Diane Yamada, MD

*Chief, Section of Gynecologic
Oncology*

*Joseph Bolivar DeLee Professor
of Obstetrics and Gynecology*

sdyamada@bsd.uchicago.edu

Hyde Park



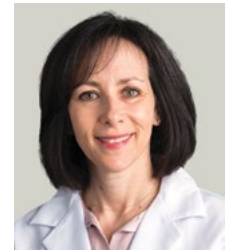
Nita Karnik Lee, MD, MPH

*Associate Professor of
Obstetrics and Gynecology*

nklee@bsd.uchicago.edu

Hyde Park

New Lenox



Stacy Tessler Lindau, MD, MA

*Professor of Obstetrics and
Gynecology and Medicine-Geriatrics*

slindau@bsd.uchicago.edu

Hyde Park



Kathryn Mills, MD

*Assistant Professor
of Obstetrics and Gynecology*

kmills@bsd.uchicago.edu

Hyde Park



John Moroney, MD

*Associate Professor
of Obstetrics and Gynecology*

jmoroney@bsd.uchicago.edu

Orland Park
Schererville



Josephine Kim, MD

*Assistant Professor
of Obstetrics and Gynecology*

jkim@bsd.uchicago.edu

Hyde Park
New Lenox
River East



Katherine Kurnit, MD, MPH

*Assistant Professor
of Obstetrics and Gynecology*

kkurnity@bsd.uchicago.edu

Hyde Park
Schererville



Five Things Physicians and Patients Should Question

1

Don't screen low-risk women with CA-125 or ultrasound for ovarian cancer.

CA-125 and ultrasound in low risk, asymptomatic women have not led to diagnosis of ovarian cancer in earlier stages of disease or reduced ovarian cancer mortality. False positive results of either test can lead to unnecessary procedures, which have risks of complication.

2

Don't perform Pap tests for surveillance of women with a history of endometrial cancer.

Pap testing of the top of the vagina in women treated for endometrial cancer does not improve detection of local recurrence. False positive Pap smears in this group can lead to unnecessary procedures such as colposcopy and biopsy.

3

Don't perform colposcopy in patients treated for cervical cancer with Pap tests of low-grade squamous intraepithelial lesion (LGSIL) or less.

Colposcopy for low-grade abnormalities in this group does not detect recurrence unless there is a visible lesion and is not cost effective.

4

Avoid routine imaging for cancer surveillance in women with gynecologic cancer, specifically ovarian, endometrial, cervical, vulvar and vaginal cancer.

Imaging in the absence of symptoms or rising tumor markers has shown low yield in detecting recurrence or impacting overall survival.

5

Don't delay basic level palliative care for women with advanced or relapsed gynecologic cancer, and when appropriate, refer to specialty-level palliative medicine.

There is now an evidence-based consensus among physicians who care for cancer patients that palliative care improves symptom burden and quality of life. Palliative care empowers patients and physicians to work together to set appropriate goals for care and outcomes. Palliative care can and should be delivered in parallel with cancer-directed therapies in appropriate patients.

How This List Was Created

The Society of Gynecologic Oncology (SGO) created a “Cost of Care” workgroup in response to the ABIM Foundation’s *Choosing Wisely*® campaign. Workgroup members are comprised of the Society’s clinical practice committee made up of gynecologic oncologists, medical oncologists, nurse practitioners, pharmacists and other allied health providers. A literature review was conducted to identify areas of overutilization or unproven clinical benefit and areas of underutilization in the presence of evidence-based guidelines. The workgroup then evaluated these data and presented a list of five topics to the membership of the clinical practice committee and then to the SGO Board of Directors for approval. The five selected interventions were agreed upon as the most important components for women with gynecologic malignancies and their providers to consider.

SGO’s disclosure and conflict of interest policy can be found at www.sgo.org.

Sources

- Barton MB, Lin K. Screening for ovarian cancer: Evidence update for the U.S. Preventive Services Task Force reaffirmation recommendation statement [Internet]. Rockville (MD); 2012 Apr. Agency for Healthcare Research and Quality; AHRQ Publication No. 12-05165–EF3. Available from: <http://www.uspreventiveservicestaskforce.org/uspstf12/ovarian/ovarcancers.htm>.

Buys SS, Partridge E, Black A, Johnson CC, Lamerato L, Isaacs C, Reding DJ, Greenlee RT, Yokochi LA, Kessel B, Crawford ED, Church TR, Andriole GL, Weissfeld JL, Fouad MN, Chia D, O’Brien B, Ragard LR, Clapp JD, Rathmell JM, Riley TL, Hartge P, Pinsky PF, Zhu CS, Izmirlian G, Kramer BS, Miller AB, Xu JL, Prorok PC, Gohagan JK, Berg CD; PLCO Project Team. Effect of screening on ovarian cancer mortality: the Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Randomized Controlled Trial. *JAMA*. 2011 Jun 8;305(22):2295–303.

American College of Obstetricians and Gynecologists Committee on Gynecologic Practice. The role of the obstetrician-gynecologist in the early detection of epithelial ovarian cancer. Committee Opinion No. 477. *Obstet Gynecol*. 2011 Mar;117(3):742–6.
- Salani R, Backes FJ, Fung MF, Holschneider CH, Parker LP, Bristow RE, Goff BA. Posttreatment surveillance and diagnosis of recurrence in women with gynecologic malignancies: Society of Gynecologic Oncologists recommendations. *Am J Obstet Gynecol*. 2011;204:466–78.

Salani R, Nagel CI, Drennen E, Bristow RE. Recurrence patterns and surveillance for patients with early stage endometrial cancer. *Gynecol Oncol*. 2011;123:205–7.

Bristow RE, Purinton SC, Santillan A, Diaz-Montes TP, Gardner GJ, Giuntoli RL, 2nd. Cost-effectiveness of routine vaginal cytology for endometrial cancer surveillance. *Gynecol Oncol*. 2006; 103:709–13.
- Rimel BJ, Ferda A, Erwin J, Dewdney SB, Seamon L, Gao F, DeSimone C, Cotney KK, Huh W, Massad LS. Cervicovaginal cytology in the detection of recurrence after cervical cancer treatment. *Obstet Gynecol*. 2011;118:548–53.

Tergas A HL, Guntupalli SR, Huh WK, Massad LS, Fader AN, Rimel BJ. A cost analysis of colposcopy following abnormal cytology in posttreatment surveillance for cervical cancer. *Gynecol Oncol*. 2013.
- Sartori E, Pasinetti B, Carrara L, Gambino A, Odicino F, Pecorelli S. Pattern of failure and value of follow up procedures in endometrial and cervical cancer patients. *Gynecol Oncol*. 2007;107:S241–7.

Berchuck A, Anspach C, Evans AC, Soper JT, Rodriguez GC, Dodge R, Robboy S, Clarke-Pearson DL. Postsurgical surveillance of patients with FIGO stage I/II endometrial adenocarcinoma. *Gynecol Oncol*. 1995;59:20–4.

Bhosale P, Peungjesada S, Wei W, Levenback CF, Schmeler K, Rohren E, Macapinlac HA, Iyer RB. Clinical utility of positron emission tomography/computed tomography in the evaluation of suspected recurrent ovarian cancer in the setting of normal CA125 levels. *Int J Gynecol Cancer*. 2010;20:936–44.

Havrilesky LJ, Wong TZ, Alvarez Secord A, Berchuck A, Clarke-Pearson DL, Jones E. The role of PET scanning in the detection of recurrent cervical cancer. *Gynecol Oncol*. 2003;90:186–90.

Rimel BJ, Ferda A, Erwin J, Dewdney SB, Seamon L, Gao F, DeSimone C, Cotney KK, Huh W, Massad LS. Cervicovaginal cytology in the detection of recurrence after cervical cancer treatment. *Obstet Gynecol*. 2011;118:548–53.
- Smith TJ, Temin S, Alesi ER, Abernethy AP, Balboni TA, Basch EM, Ferrell BR, Loscalzo M, Meier DE, Paice JA, Peppercorn JM, Somerfield M, Stovall E, Von Roenn JH. American Society of Clinical Oncology provisional clinical opinion: the integration of palliative care into standard oncology care. *J Clin Oncol*. 2012 Mar 10;30(8):880–7.

Rezk Y, Timmins PF, Smith HS. Review article: palliative care in gynecologic oncology. *Am J Hosp Palliat Care*. 2011 Aug;28(5):356–74.

Lewin SN, Buttin BM, Powell MA, Gibb RK, Rader JS, Mutch DG, Herzog TJ. Resource utilization for ovarian cancer patients at the end of life: how much is too much? *Gynecol Oncol*. 2005 Nov;99(2):261–6.

Delgado-Guay MO, Parson HA, Li Z, Palmer LJ, Bruera E. Symptom distress, intervention and outcomes of intensive care unit cancer patients referred to a palliative care consult team. *Cancer*. 2009;115:37–445.

Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, Dahlin CM, Blinderman CD, Jacobsen J, Pirl WF, Billings JA, Lynch TJ. Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med* 2010;363:733–42.

Elsayem A, Swint K, Fisch MJ, Palmer JL, Reddy S, Walker P, Zhukovsky D, Knight P, Bruera E. Palliative care inpatient services in a comprehensive cancer center: clinical and financial outcomes. *J Clin Oncol*. 2004 May 14;22(10):2008–14.

Fauci J, Schneider K, Walters C, Boone J, Whitworth J, Killian E, Straughn JM Jr. The utilization of palliative care in gynecologic oncology patients near the end of life. *Gynecol Oncol*. 2012;127:175–9.

Albanese TH, Radwany SM, Mason H, Gayomali C, Dieter K. Assessing the financial impact of an inpatient acute palliative care unit in a tertiary care teaching hospital. *J Palliat Med*. 2013;16:289–94.

Quill TE, Abernethy AP. Generalist plus specialist palliative care-creating a more sustainable model. *N Engl J Med*. 2013;368:1173–75.

About the ABIM Foundation

The mission of the ABIM Foundation is to advance medical professionalism to improve the health care system. We achieve this by collaborating with physicians and physician leaders, medical trainees, health care delivery systems, payers, policymakers, consumer organizations and patients to foster a shared understanding of professionalism and how they can adopt the tenets of professionalism in practice.



To learn more about the ABIM Foundation, visit www.abimfoundation.org.

About the Society of Gynecologic Oncology

The Society of Gynecologic Oncology (SGO) is a 501(c) 6 national medical specialty organization of physicians and allied health care professionals who are trained in the comprehensive management of women with malignancies of the reproductive tract. The Society’s membership, totaling more than 1,600, is primarily comprised of gynecologic oncologists, as well as other related medical specialists including medical oncologists, radiation oncologists, nurses, social workers and pathologists. SGO members provide multidisciplinary cancer treatment including chemotherapy, radiation therapy, surgery and supportive care.



For more information, please visit www.sgo.org.

About the Foundation for Gynecologic Oncology

The Foundation for Gynecologic Oncology is a 501(c) 3 organization that ensures that SGO meets the needs and provides the resources for members and the women’s cancer care community.

For more information, please visit www.sgo.org/foundation.

For more information or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwisely.org.