



# SPOTLIGHT

## The state of cancer screening



**COMPREHENSIVE SCREENING.  
EXPERT CARE.**

At Goshen Center for Cancer Care, we use an integrated approach to treat the whole person, not just the cancer.

### Our Cancer Team

- Dr. Leonard Henry**  
Medical Director,  
Surgical Oncologist
- Dr. Sachin Agarwal**  
Medical Oncologist
- Dr. Muhammad Ahmed**  
Medical Oncologist
- Dr. Fiona Denham**  
Breast Surgical  
Oncologist
- Dr. Ashley Hardy**  
Surgical Oncologist
- Dr. Ebenezer Kio**  
Medical Oncologist
- Dr. Rebecca Lovejoy**  
Naturopathic Doctor
- Dr. Emily Moore**  
Naturopathic Doctor
- Dr. Laura Morris**  
Breast Surgical  
Oncologist
- Dr. Irina Sparks**  
Radiation Oncologist
- Dr. Pamela Stone**  
Gynecologic Oncologist
- Dr. Houman Vaghefi**  
Radiation Oncologist
- Dr. Urs von Holzen**  
Director of Surgical  
Oncology,  
Surgical Oncologist
- Dr. James Wheeler**  
Radiation Oncologist
- Ingrid Bowser, NP**
- Bo Coody, NP**
- Grace Darnell, NP**
- Kacy Davis, NP**
- Brooke Dubbert, NP**
- Betsy Garber, NP**
- Rachel Kratzer, NP**
- Kristan Rheinheimer, NP**
- Tracy Paulus,  
Certified Tumor Registrar**

To refer a patient to Goshen Center for Cancer Care, call (574) 364-2962.

## The role of the primary physician has never been more important

In early November, the Goshen Center for Cancer Care hosted a half-day CME to address the state of cancer health and screening in Elkhart County. While there is good news in some areas, there is more that can be done to achieve progressive – and relevant – cancer screenings. One area of consensus was that the role of the primary physician has never been more important when it comes to encouraging patients to take advantage of appropriate screening opportunities.

This issue of Spotlight will touch on guidelines with respect to these cancers: breast, lung, prostate, colorectal and cervical.

### Breast Cancer

Dr. Fiona Denham reported that next to skin cancer, breast cancer is the most commonly diagnosed cancer among American women and also the second leading cause of female cancer-related mortality. It's estimated that in 2019, 30 percent of new cancer diagnoses in women involved breast cancer – 80 percent of which were identified as invasive. Nearly 10 percent of these new IBC cases involve women less than 45 years of age. African-American women tend to be diagnosed at a younger age and are more likely to die from the disease than the general population.



**Fiona Denham, MD**  
Breast Surgical Oncologist,  
Goshen Center for Cancer Care

"It is critically important that we continue to encourage early screening for breast cancer," Dr. Denham said. "Not only does early detection enhance treatability and survival rates, but mammograms find breast cancer an average of two to three years before it becomes clinically detectable. This proactive approach reduces breast cancer deaths by 15 – 60 percent." She also noted this early detection has a financial impact with stage one cancer treatment averaging \$78,000 versus \$184,000 at stage four.

*(Continued on page 2)*

## Breast Cancer *Cont'd*

Breast density is also considered an important risk factor for breast cancer. Dense breast tissue can create a masking effect which makes radiologist interpretation of mammograms and detection of abnormal changes more difficult. Dense breast tissue is also considered a risk factor itself due to the presence of increased glandular tissue elements.

Mammogram screening guidelines still vary among different organizations, but they are evolving due to factors such as: advances in screening and improvements in treatment practices. There are also enhanced screening guidelines for intermediate-risk and high-risk women compared to average risk women. Despite differences regarding the optimal age for initiation of mammographic surveillance; however, there is agreement regarding the importance of discussion and access to mammograms beginning at age 40 for average risk women.

More recent studies have suggested a survival benefit for screening mammograms in women in this older population if they do not have other significant medical comorbidities.

### Breast cancer risk reduction strategies for high-risk women

1. An annual breast MRI in addition to an annual MMG alternating every six months.
2. Use of risk-reducing medications including SERMs (tamoxifen, raloxifene) or aromatase inhibitors (anastrozole, exemestane).
3. Risk-reducing surgery; either bilateral prophylactic mastectomy or bilateral salpingo-oophorectomy when applicable.
4. Genetic counseling and testing as appropriate.
5. Healthy lifestyle changes including:
  - Limiting alcohol consumption to the equivalent of one drink per day or less
  - Regular exercise
  - Weight management to achieve normal BMI and decreased central obesity
  - Moving to a plant-based diet
  - Breastfeeding longer than six months
  - Caution with HRT (especially combined estrogen/progesterone therapy)

Genetic testing is also an area of advancing medical technology that is relevant for patients with a personal history of breast cancer or certain cancers in their family history. Detection of abnormal genetic mutations allows patients to be proactive with earlier or increased cancer screenings, risk reducing medications or surgeries and other preventive measures. This testing may also affect cancer treatment recommendations such as the use of certain cancer chemotherapy agents, additional surgeries or avoidance of XRT. It can also provide important information about increased cancer risk for other close family members.

Who needs genetic testing? ASBrS recommends it for all patients with a personal history of breast cancer, as well as those who may not have a personal history but who meet the NCCN guidelines. USPSTF also has updated guidelines recommending genetic counseling/risk assessment for all patients with a personal or family history of breast, ovarian, fallopian tube and peritoneal cancers with consideration for genetic testing.

### Summary

- Mammogram screening should be an individualized decision between the patient and physician. The recommended age for this discussion and action should begin at age 40 for women of average risk.
- High-risk women should begin having mammogram screening even earlier, preferably by age 25.
- Cessation of mammogram screening should likewise be an individualized decision based on the patient's health and life expectancy.
- Genetic screening and counseling should be available to women with a personal and/or family history of breast cancer.

## Colorectal Cancer

Dr. Ashley Hardy noted:

- Colorectal cancer is the third most frequently diagnosed cancer in the U.S., representing an estimated 135,000 new cases annually.
- It is also the third leading cause of cancer deaths – approximately 50,000 annually.
- Overall, there has been a decline in both incidence and mortality.

Dr. Hardy attributed the declines to improved colorectal cancer screenings. The benefits go well beyond incidence and mortality statistics. “The incidence decrease,” Dr. Hardy said, “has been realized through the detection and removal of precancerous polyps. The reduction in mortality can be attributed to detection at early stages when the cancer is most curable. Specifically, the stage of diagnosis enhances five-year survivability rates by 90 percent when the cancer is localized, compared to 71 percent when it is regional and 14 percent when it is metastatic.”

Speaking to the issue of **average risk** identification, Dr. Hardy included persons age 50 or older with no personal or family history of adenomas, polyps, colorectal cancer or IBD.

In the category of **increased risk**, Dr. Hardy referenced those patients with a personal or family history of adenomas, colorectal cancer or IBD. She added that 20 percent of cases are associated with familial clustering and that patients having first degree relatives with positive histories are at two to four times greater risk.

Included in the **high risk** category would be patients with the following histories:

- Lynch Syndrome/Hereditary Nonpolyposis Colorectal Cancer (HNPCC)
- Polyposis Syndromes including...
  - Familial Adenomatous Polyposis (FAP)
  - Attenuated FAP (AFAP)
  - MUTYH-Associated Polyposis (MAP)
  - Peutz-Jeghers Syndrome (PJS)

Most common screening modalities for colorectal cancer fall into two primary categories: stool/fecal-based and structural. Stool/fecal based tests include the fecal occult blood test (FOBT), fecal immunochemical test (FIT) and the multi-target stool DNA test, of which the increasingly popular Cologuard modality is a primary example.

The FOBT tests for the presence of occult blood in the patient’s stool. This test can be performed at home, is non-invasive and does not require bowel preparation. However, the disadvantages of the test are that it must be repeated annually, involves specific drug and dietary restrictions and has the lowest level of sensitivity for adenomas. If there is an abnormal result, colonoscopy is required.

The FIT detects the presence of human globin within Hgb. While more sensitive than FOBT and without the need for drug or dietary restrictions, the other advantages and disadvantages of the FIT test are similar to the FOBT.

## Cervical Cancer

Dr. Ellen Cuddeback focused on recent guideline changes regarding cervical cancer screening. Guidelines were initiated in 2012 by the ASCCP based on achieving a benchmark for cancer risk that could be achieved by performing cervical cytology every three years. While lower risks of cervical cancer are achievable with more frequent screening, these would, in turn, require more diagnostic evaluations, patient inconvenience, increased costs and certain potential harms.

“With the exception of special population segments, women under 21 should not be screened, regardless of the age of the patient’s sexual initiation or the presence of other behavior-related risk factors. The rationale for this recommendation is the very low incidence of cancer in this age group, and the lack of actionable data suggesting its effectiveness,” Dr. Cuddeback said.

Only 0.1 percent of cervical cancer cases occur before age 20, or about one to two cases per million in the 15-19 age group. Screening younger women has likewise failed to show any decrease in their rate of cervical cancer. “While cancer is rare in female adolescents, neoplasia is not. In a report of over 10,000 Pap test results from 12 to 18 year-olds, 422 specimens (5.7 percent) were LSIL and only 55 specimens (0.7 percent) were HSIL. “In fact,” Dr. Cuddeback cautioned, “Earlier onset of screening may actually increase anxiety, morbidity and expense and require follow-up procedures. There is an emotional impact of labeling an individual with STI and potential precancer concerns that must be considered.” There is a significant increase in rates of preterm birth associated with excisional procedures.

While the risk of cervical cancer is still relatively modest in the 21 – 29

demographic, screening is advisable every three years. Annual or biannual screening has a marginal impact on cancer cases being prevented or lifetime cancer risk.

The benefits of screening become much more profound for women between 30 and 65. Guidelines indicate that the preferred screening scenario is cotesting for humanpapillomavirus and cytology every five years, although cytology alone every three years is considered acceptable. There is strong clinical data to support these recommendations. “In addition to the research,” Dr. Cuddeback said, “the rationale for cotesting is compelling. It results in enhanced detection of adenocarcinoma versus squamous cell cancer and CIN3, decreased rates of CIN3 in later screening, and minimizes the number of colposcopies thus reducing potential harm to the patient.” Cotesting at one to three year intervals identifies the risk of CIN3 is basically equal to cytology screening only.

Cologuard screens for the presence of known DNA alterations and occult blood. It too can be performed at home (every three years), is non-invasive and requires no bowel preparation or drug or dietary restrictions. It is also more sensitive than either FOBT or FIT. The disadvantages include low sensitivity for advanced adenomas and the need for colonoscopy if the results are abnormal.

Still, colonoscopy remains “the gold standard” of all colorectal screening options. “A colonoscopy is one of the three primary structural screening options,” Dr. Hardy said. “It is both diagnostic and therapeutic, and it requires less frequent screening. However, patients sometimes have an aversion to colonoscopy because it is invasive, requires sedation and bowel preparation and poses a small risk of perforation. In addition, the test’s adequacy can vary depending on the provider.”

Other structural options include flexible sigmoidoscopy and CT colonography. While sigmoidoscopy is faster than colonoscopy and doesn’t require sedation nor full bowel preparation, it fails to examine and detect proximal tumors.

CT colonography does offer some unique advantages. Typically performed every five years, it is non-invasive and provides a view of the entire colon and extracolonic structures. However, it requires bowel preparation and cannot identify polyps less than 5 millimeters in size. Again, if abnormalities are identified, a follow-up colonoscopy is necessary.

#### **Additional key takeaways**

- Because African Americans show higher incidence and mortality from colorectal cancer, screening is recommended to start at age 45.
- As of 2018, the American Cancer Society recommended colonoscopies for all average risk individuals starting at age 45. (USPSTF continues to recommend age 50.)

- Despite a decrease overall, the incidence of colorectal cancer in patients younger than 50 is increasing.
- The precise causes for these increases are not known. The differences may reflect clinicopathological and genetic variables.



**Ashley Hardy, MD, FACS**  
*Surgical Oncologist,  
Goshen Center for Cancer Care*

In answer to the question: If cotesting is so great, why not do it annually? Dr. Cuddeback said, “First, there is a highly negative predictive value in that most abnormal screens at the 1-3 year intervals involve transient HPV infection, rather than precancer indicators. The second factor is the potential for increased harms resulting from annual cotesting... regardless of the frequency of cervical CA screening, patients should be counseled that annual well-woman visits are recommended even if cervical CA screening is not performed at each visit.”

Cervical cancer screening for the average woman can be discontinued after age 65 – as long as there is evidence of adequate negative prior screening test results and no history of CIN2 or higher. Here again, there is minimal data to suggest screening

women over the age of 65 prevents a significant number of cancer cases. In part this is due to the fact that cervical cancer occurs a median of 15-25 years after HPV infection. Furthermore, epithelial atrophy predisposes to false-positive cytology and colposcopy/biopsy and other follow-up treatments are not only more difficult, they can create additional risks of patient harms.

It merits mention that women with a history of CIN2, CIN3 or AIS should continue screening for a total of 20 years, even if it extends screen past age 65. Conversely, if h/o hysterectomy with removal of the cervix and no h/o CIN2+ is involved, routine cytology screening and HPV testing should be discontinued and not restarted for any reason.



**Ellen Cuddeback, DO, FCOOG**  
*Obstetrician and Gynecologist,  
Goshen Physicians OB/GYN*

## Lung Cancer

Dr. Ebenezer Kio reported that 2019 estimates show that lung and bronchus cancers represented the second leading incidence of new cancer cases and contributed to the largest number of deaths by far. Not surprisingly, the risk of death from lung cancer increases with the stage. According to SEER Data from the American Cancer Society, the five-year relative survival rate from 2008 – 2014 was 60 percent for localized lung cancer. Survivability goes down to 33 percent when the cancer is regional and just six percent when it is distant/metastatic.

Given these statistics, early detection is critical to survivability. According to Dr. Kio, “Screening initiatives are proven to be highly effective for identifying lung cancer and reduce mortality because they provide a high degree of specificity and sensitivity. Fortunately, they are also very cost effective and safe.”

Another key to reducing incidents of lung cancer is smoking cessation. He believes that patients are most likely to quit smoking if they have better education about the impact on their health, and higher taxes are imposed on cigarettes.

The USPSTF offers equally clear recommendations for lung screening. Specifically, they recommend annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 – 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Goshen Health offers **FREE** lung screenings consistent with the recommended USPSTF protocol.

When lung screening is done among patients in the high-risk population, the decreased risk of death is demonstrable. Physicians should note, however, that a degree of uncertainty remains about potential longer-term risks of screenings.



**Ebenezer Kio, MD**  
*Director of Medical Oncology,  
Goshen Center for Cancer Care*

## Prostate Cancer

Dr. Irina Sparks highlighted that prostate cancer is a very common disease found in one out of nine men. It remains the second leading cause of cancer death in this population. After early detection became more widely available, it was observed that the death rate dropped by 50 percent, between 1993 and 2016.

Screening programs are accompanied by some legitimate concerns, “Frankly, there is a degree of conflicting evidence regarding the impact of screening on overall survival rates,” she said.

“In addition, prostate cancer is representative of the full spectrum of disease and not all patients with prostate cancer require aggressive treatment. Many patients can live years with the cancer before it becomes a problem, while some patients may die with prostate cancer but not as a direct result of it. In addition, we are seeing an overtreatment of men who are at low risk, or who may have a short life expectancy.”

Dr. Sparks noted concerns about both the cost of treatment and the toxicities involved with prostate cancer treatment. To address them, she recommends a program of active surveillance by the care team to address overtreatment and offset the timing of related costs and potential side effects. It’s important to assess the patient’s life expectancy to determine the course of options ranging from an appropriately conservative level of management to more aggressive treatment.

Taking concerns and solutions regarding prostate cancer screening into account, early detection is still critically important. “There is no question,” she said, “that early detection improves the rate of cure significantly. It also provides the opportunity for a wider selection of options including some that are less aggressive but still appropriate for successful treatment of the cancer.”

Guidelines for prostate cancer screening vary across professional associations, with slight differences. However, all of these guidelines are expected to be revised in the near future.

The issue of biopsy referral consideration presents various options for the referring physician. Prior to referring for biopsy consider repeating the PSA, conducting a DRE or possibly ordering a multiparametric MRI to increase specificity and sensitivity of PSA and DRE.



**Irina Sparks, MD**  
*Radiation Oncologist,  
Goshen Center for Cancer Care*



## The state of cancer screenings

*What healthcare providers need to know*

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**Irina Sparks, MD**  
Radiation Oncologist,  
Goshen Center for Cancer Care



### TO REFER A PATIENT

Goshen Center for Cancer Care provides holistic, complete care for patients. To refer a patient, call **(574) 364-2962**.

If you would like more information or to meet any of our doctors, please contact **Jenny Rupp, Physician Liaison**, at [jrupp2@goshenhealth.com](mailto:jrupp2@goshenhealth.com) or **(574) 364-2978**.

Goshen Center for Cancer Care | 200 High Park Avenue | Goshen, IN 46526 | (574) 364-2962