

# Cancer Risk Assessment and Clinical Cancer Genetics: Newsletter Update

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## October is Breast Cancer Awareness Month

Breast cancer is the most frequently diagnosed cancer in women, and is the second-leading cause of cancer-related death in women in the United States. Up to 10% of breast cancers are due to inherited gene mutations that can raise a woman's lifetime risk of breast cancer. Depending on the gene, men can also be at increased risk for breast cancer. In this issue, we highlight some recent advances in genetic testing for breast cancer and diet recommendations from the American Cancer Society to reduce breast cancer risk.

### Our Innovation Initiatives include:

- Research opportunities
- Patient-centered efforts
- Telegenetics
- Comprehensive genetic consultation
- Team-based approach to patient recommendations

To learn more or to **make a donation** to support our efforts, please contact our Program Manager:  
Laura Gross: 215-503-5285

## Prostate Cancer Awareness Month: September 2017

### Role of Genetic Testing for Inherited Prostate Cancer Risk: Philadelphia Prostate Cancer Consensus Conference 2017



*Philadelphia Prostate Cancer Consensus Conference 2017 - Consensus Panel Members  
Co-Chairs: Veda N. Giri, MD, Leonard Gomella, MD, and Karen Knudsen, PhD*

Prostate cancer is a leading cause of cancer-related death in men in the United States. There is increasing recognition that prostate cancer can be inherited. Furthermore, prostate cancer can be connected to other cancers in families, such as breast, ovarian, and colon cancers. Genetic testing has implications for men with prostate cancer that might impact options for treatment, and can provide cancer risk information for their families. To bring clarity and understanding to providers and patients on the best approaches to genetic testing for prostate cancer patients and their families, the Sidney Kimmel Cancer Center and the Foundation for Breast and Prostate Health co-sponsored the first international Prostate Cancer Consensus 2017 (March 3-4, 2017) held at Jefferson to address genetic counseling, genetic testing, impact of genetic testing on prostate cancer screening, and the role of genetic information in management and treatment of localized, advanced, and metastatic prostate cancer. The conference brought together more than 60 experts and stakeholders spanning medical oncologists, urologists, radiation oncologists, genetic counselors, clinical cancer genetics experts, researchers, pathologists, patient advocates, bioethicists, molecular experts, policy-makers, and national organizations (National Comprehensive Cancer Network, National Cancer Institute, American Cancer Society) to develop a comprehensive statement regarding who should undergo genetic counseling and genetic testing, which genes to test, and how genetic test results may inform screening and treatment for prostate cancer. The consensus statement has been accepted for publication in the *Journal of Clinical Oncology*, and is expected to influence national guidelines for genetic testing for prostate cancer.

## Hereditary Breast Cancer Genetic Testing: Not Just *BRCA1* and *BRCA2* Anymore

Sue Miller-Samuel, MSN, RN, AGN-BC

Not very long ago, it seemed that the only option for hereditary breast cancer genetic testing was to examine the *BRCA1* and *BRCA2* genes. But that was then.

**What Has Changed:** Lots of things have changed since the cancer genetics world is rapidly evolving. *BRCA* genetic testing is still important, but it's not the only genetic testing that's important. As recently as 3-5 years ago, those being tested for hereditary types of breast cancer may only have had genetic testing for 2 genes: *BRCA1* and *BRCA2*. If a person was "BRCA-tested" more than 8-10 years ago, a person's *BRCA* genetic testing is probably not as complete as it can be today.

**What's Newer and More Complete:** Other genes have emerged as being related to some types of hereditary breast and other cancers. Depending on what your family history looks like, most people with significant personal or family cancer histories are typically recommended to have more than *BRCA* genetic testing. Some or all of the following genes are now often routinely included for hereditary breast cancer genetic testing: *ATM* (related to breast and pancreatic cancers), *CHEK2* (related to breast and colorectal cancers), *PALB2* (related to breast and pancreatic cancers), *CDH1* (related to a specific type of breast cancer called "lobular breast cancer" and stomach cancer), and *TP53* (related to breast cancer, sarcomas of the soft tissue or bone, brain cancer, leukemias, and several other cancers).

**Things to Consider:** If you've had *BRCA* genetic testing more than 3-5 years ago and no hereditary reason for cancer was found, consider a "genetic counseling update" to review prior genetic testing to see whether you'd be a good candidate for additional genetic testing. You'll need a copy of your initial genetic test report(s) for this meeting so the genetics provider knows exactly what genetic testing has already been done. Most insurance providers will not pay to test genes that have previously been tested in a person.

**Clues to hereditary breast cancer:** It is important to remember that the majority of breast cancers are not inherited. Some clues to potentially inherited breast cancer include young age at diagnosis of breast cancer (age at diagnosis less than 45) family history of breast, ovarian, prostate, or pancreatic cancers (particularly if multiple family members have these cancers or if they occurred at younger ages), Ashkenazi Jewish ancestry, or specific breast cancer markers that may indicate inherited risk. If you have any of these factors, you may benefit from genetic counseling to discuss genetic testing.

**Next Steps:** Whether coming in for a genetic counseling update or initial genetic counseling, the Jefferson Cancer Genetics Staff is here to help you understand your options so you can make the best-informed decisions. To schedule a consultation, please contact our intake coordinator at 215-955-1011.

### What do we do with uncertain genetic results?

Colette Hyatt, MS, LCGC

Genetic testing is available to look for genetic mutations that can be associated with inherited risk of cancer. Sometimes genetic testing may include a report of a variant of uncertain significance (VUS). A VUS means that there is something different in the gene compared to how it should look, but the laboratory is uncertain if the genetic change is associated with an increased risk of cancer.

If you have received a VUS test result, it is important to keep in contact with your genetic counselor and physician. Genetic testing laboratories and researchers follow VUS for more information about their potential association to cancer. Sometimes, evidence points towards an association to cancer, in which case the VUS is reclassified to "mutation". These updates are communicated to the doctor or provider who ordered the genetic test and they will reach out to you with the updates. We recommend keeping your genetic counselor updated on your contact information and also to check in once a year to see if there are any changes to the VUS classification.

There are no management recommendations based upon the finding of a VUS. Management and cancer screening for someone who has received a VUS result will be based on personal and family history.

If you have any questions regarding genetic testing, please contact Jefferson Cancer Genetics at 215-955-1011 to make an appointment with a cancer genetics provider.



Colette Hyatt, MS, LCGC

# Lifestyle and Breast Cancer Risk: Update from the American Cancer Society

Studies have shown that obesity and weight gain are linked with increased risk for breast cancer after menopause. Alcohol intake has also been linked with risk for breast cancer. Diets that are rich in vegetables, fruits, poultry, fish, and low-fat dairy products may help lower risk for breast cancer.

The American Cancer Society recommends the following lifestyle to lower the risk for breast cancer:

- Get regular, intentional physical activity
- Reduce lifetime weight gain by limiting calories and regular physical activity
- Avoid or limit alcohol intake.



American Cancer Society  
Guidelines on Nutrition and Physical Activity for Cancer  
Prevention  
[www.cancer.org](http://www.cancer.org)

## Coping with Cancer Risk: The Social Worker's Role in Genetics

Lora Rhodes, MSW, LSW

As our knowledge of cancer risk and cancer genetics grows, genetic testing has become widely available in both the oncology and primary care settings. This knowledge, combined with the greater availability of testing, has implications not only for cancer risk reduction, screening, and treatment, but can also bring psychological, social, financial and ethical challenges for individuals and their families. In many cases, our knowledge of hereditary cancer risk has outpaced the knowledge necessary to prevent, treat, or cure these diseases. This can lead to cancer-related anxiety, guilt about passing inherited risk on to children, "survivor guilt" among unaffected family members, difficulty with medical decision making, and financial stressors related to increased medical costs. Oncology social workers are in a unique position to help patients and families cope with these challenges. While historically, the social work role in genetics has been in the area of maternal-fetal medicine and pediatrics, the growing importance of genetics in oncology presents an important role for oncology social workers.

Social workers can help individuals learn skills to live with uncertainty, manage family conflict, and improve communication. Social workers can help patients navigate the healthcare system and arrive at decisions about risk reduction strategies and treatment options that make the most sense for their lives. Social Workers can also help individuals understand their rights and responsibilities related to insurance coverage and healthcare privacy. Ultimately, we want to avoid people getting "frozen in fear" in the face of genetic testing results. By addressing individual's anxiety and offering support-whether psychosocial, emotional, or financial-we can help insure that everyone is able to benefit from the advances made in our understanding of genetic risk for cancer.



Lora Rhodes, MSW, LSW

## Our Team



**Veda N. Giri, MD**  
Program Director

**Director, Cancer Risk Assessment and Clinical Cancer Genetics**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University



**Colette Hyatt, MS, LCGC**

**Genetic Counselor**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University Hospital



**Lora Rhodes, MSW, LSW**

**Licensed Social Worker**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University  
Hospital



**Laura Gross, BA**

**Program Manager**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University Hospital

**Susan Miller-Samuel, MSN, RN, AGN-BC**

**Advanced Practice Nurse, Genetics**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University Hospital



**Karen Robison, CMA**

**Intake Coordinator**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University  
Hospital

### **Physician Contributors:**

Daniel Silver, MD, PhD (Breast Oncology, Jefferson)  
Rebecca Jaslow, MD (Breast Oncology, Jefferson)  
James Posey III, MD (GI Oncology, Jefferson)  
Mark Sundermeyer, MD (Medical Oncology)  
(Abington-Jefferson Health)  
Eileen Engle, MD (Ob/Gyn, Doylestown Hospital)

### **Genetic Counselors at Jefferson Affiliate Sites:**

Meredith Kohn, RN, MS (Clinical nurse specialist)  
(Abington-Jefferson Health)  
Cheryl Knight, MS (Genetic counselor)  
(Doylestown Hospital)

**\*Our genetic providers also see patients at several  
Jefferson Network and Affiliate Sites**



**Nicole Crumpler, MS, MBA**

**Laboratory Manager**  
Sidney Kimmel Cancer Center  
Thomas Jefferson University

**Our Genetics Case Conference has reviewed  
over 1500 patient cases since November 2014!**