PRINT-CancerIQ helps school administrator find her cancer early

Like many of us, Kelli Ballard, a Washington, Illinois, school administrator was hoping after a tumultuous 2020, that 2021 would be a better year. It didn't quite turn out that way. In January of last year, just as the new school semester was beginning at her K-8 school, the then 42-year-old Ballard received a phone call that would change everything.

Ballard was told she had three tumors in her breasts. Tests showed she had stage 1a invasive ductile breast cancer.

"They weren't bringing people in because of COVID and so that was really hard. I actually had a co-worker who had breast cancer the year before and she was there with me that day when I found out and she was just my huge support system."

It was quite a blow. Ballard's cancer journey began when after a few years of taking a <u>CancerIQ assessment</u> before every mammogram, she finally decided to talk to someone about her high risk score. The five-minute online tool from the Chicago-based startup flags patients with a hereditary cancer risk, based on the personal and family history questionnaire.

Ballard consulted with Michele Settelmyer, an advanced practice registered nurse with OSF HealthCare and a CancerIQ champion specializing in genetics. Ballard pursued genetic testing based on her "high risk" result.

"I want to live a long life and enjoy my family. That just really set in and I thought, 'OK, I need to figure this out and get through it."

Her results didn't show mutations for the BRCA1 and BRCA2 genes, which could indicate risk for breast or ovarian cancer. But Ballard's results indicated she had a 50% higher risk for developing breast cancer based on her family history, which included her mother, paternal grandmother, two paternal aunts and one maternal aunt, all of whom had breast cancer. With that higher risk, Ballard was given a more aggressive screening plan that added a breast MRI six months following every mammogram.

"I didn't realize they actually put together a whole plan of preventive steps or ways to monitor throughout the years so I wasn't really done, but I was glad; I was happy about that, because that risk was so much higher."

Ballard's mother was in her 50s when she was diagnosed with breast cancer at Stage 0, indicating the cancer is noninvasive or contained within the milk ducts but could spread without treatment. A survivor following radiation, her mother's successful journey inspired Ballard to remain vigilant, although she was thankful to receive an OSF reminder call in December of 2020.

It was that MRI that revealed Ballard had the tumors and a biopsy revealed one in her left breast was cancerous. With support from her husband, her then nine year-old daughter, and many other family and friends, Ballard had a lumpectomy and 21 sessions of radiation, which she received five days a week after work for a month. It was a tough time, but Ballard is so thankful for the increased screening plan developed for her.

"Finding out of course that it was small and that we caught it early, just made me grateful that I did this. You know if I had waited six more months until my regular mammogram, it (the tumor) could have been much larger by then or it could have been much more significant, so I was really grateful for the plan that was put in place."

Cancer Free and Enjoying Life

Ballard was officially declared a survivor last summer! While she remains cancer-free following her most recent mammogram, she'll continue following the more rigorous screening plan.

CancerIQ is among the OSF Innovation-led strategies for expanding use of using precision medicine to improve patient care, including prevention and treatment outcomes.

More than 75,600 OSF HealthCare patients have taken a CancerIQ assessment since 2015 when it was first initiated as part of an OSF Innovation pilot at OSF Centers for Breast Health in Peoria. Among patients taking the evaluation, 30% were found to have an elevated cancer risk and were given the opportunity for additional screening and to see a clinician trained in genetic cancer risk assessment. That translated to more than 3,100 changes in care plans.

Ryan Luginbuhl (pronounced loo-gun-BEWL), director of Oncology Services for OSF HealthCare, says those changes can range from MRIs, prophylactic surgeries and vaccinations, to at-home screening kits, multi-cancer early detection (MCED) tests, along with possible lifestyle interventions, education and connection to social resources.

"So, they might have a blood test that will identify the genetic risks for cancer, and then they might say, 'Instead of getting your mammogram one time a year, you're going to get it twice.' So it really allows a clinician to tailor a screening and prevention plan."

The ultimate goal is to expand use of CancerIQ throughout OSF hospitals and clinics, including a new OSF Healthcare Cancer Institute under construction in Peoria that will provide all services and support under one roof. It will house additional personnel to help individuals who learn they carry a higher cancer risk.

Luginbuhl says CancerIQ can be as important as mammograms, colonoscopies, low-dose CT scans and other cancer screenings.

"It's a validated tool and I think it's a very important tool that we need to be pushing just as much as the traditional screenings we think of when it comes to cancer."

Tom Cox, director of Medical Imaging and Outpatient Oncology Services at OSF HealthCare Saint Francis Medical Center in Peoria, says administering CancerIQ regularly and early – well before typical screenings are suggested – is important because family history can dictate earlier-than-recommended screenings since a person's family health history can change over time.

"The overall strategy of OSF HealthCare is that we want to start getting the screening done at many entry points at a variety of ages so that we can start designing that risk mitigation plan where you'll understand what you're more at risk for and what you can do to prevent it."

Because CancerIQ is cleared by the Food and Drug Administration as a tool to identify hereditary cancer risks, Cox says genetic testing that follows the assessment is often covered by insurance. If you have a concern about cancer because of your family history, make sure to talk to your medical provider about next steps.