



Quest Diagnostics Introduces BRCAvantage Plus™, Providing New Choices in Genetic Breast Cancer Risk Testing

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First major service extension to the company's BRCAvantage™ BRCA1 and BRCA2 mutation test menu offers screening for five new non-BRCA genes shown to increase risk of inherited breast cancer

MADISON, N.J., Nov. 4, 2014 /PRNewswire/ -- Quest Diagnostics (NYSE: DGX), the world's leading provider of diagnostic information services, today announced BRCAvantage Plus, the company's first suite of lab-developed test services for assessing genetic breast cancer risk based on clinically validated non-BRCA as well as BRCA genes. The new service is now available in all 50 states.



BRCAvantage Plus is the [first major line extension](#) to BRCAvantage, a suite of lab-developed tests for assessing BRCA1 and BRCA2 gene mutations launched in October 2013. BRCAvantage Plus screens for mutations (point mutations, deletions, and duplications) in the BRCA1 and BRCA2 genes as well as in five additional genes: TP53, PTEN, CDH1, STK11, and PALB2. While mutations in the BRCA1 and BRCA2 genes result in 15 percent to 20 percent of inherited breast cancers, recent research indicates that mutations in these five non-BRCA genes account for an additional 3 percent to 4.5 percent of inherited breast cancers. Individuals who test positive for a mutation may consider more intensive monitoring or medical or surgical intervention to decrease risk of death from cancer in conjunction with their physician and in consideration of medical evidence and guidelines.

"BRCAvantage Plus reflects our commitment to giving physicians and patients access to clinically important diagnostic insights into cancer risk," said Jon R. Cohen M.D., senior vice president and chief medical officer, Quest Diagnostics. "With genetic cancer-risk assessment, there is a fine line between providing too much information and not enough. The genes that are included in BRCAvantage Plus are supported by clinical validation studies and align closely with recently released guidelines from the National Comprehensive Cancer Network, so physicians and patients can take comfort in knowing a test result is grounded in credible science."

A key feature of BRCAvantage Plus is that physicians can order single gene tests as well as a comprehensive panel, depending on the specific clinical and family history, promoting personalized care. An additional "reflex" option automatically tests the five non-BRCA genes in cases where initial BRCA1 and BRCA2 mutation testing produces a negative result.

"In the era of precision medicine, the one-size-fits-all approach is no longer valid," added Dr. Cohen. "By giving physicians choice in testing, BRCAvantage Plus will enable physicians to personalize testing. This is important not only to reduce unnecessary utilization, but also to minimize the potential for delivering information which is not useful or may even create uncertainty in cases where additional testing is not warranted for an individual."

Other unique capabilities of BRCAvantage Plus include:

- **Based on the most advanced technologies and scientific knowledge.** The BRCAvantage family of services is based on next-generation gene sequencing and multiplex ligation-dependent probe amplification, for analytical sensitivity and specificity of over 99.99% in the company's assay validation study. In addition, identified variants are cross referenced with mutational databases to promote reliable clinical interpretation. Quest is also participating in ongoing collaborative studies to further the understanding of specific mutations together with leading academic medical centers, including Memorial Sloan Kettering Cancer Center in New York.
- **Access to expert genetic counselors to guide physicians and patients through the risk assessment process.** A [national survey](#) by Quest Diagnostics and Harris Interactive found significant confusion among women polled about BRCA testing, with 82 percent claiming they would not know what to do with a positive BRCA gene test result if they received one. Quest Diagnostics encourages patients to consult a genetic counselor as well as their physician to understand the clinical need for and medical significance of all genetic cancer-risk tests. As part of the BRCAvantage service, Quest helps patients identify a non-Quest employed genetic counselor for consultation. Physicians may consult a Quest Diagnostics genetic counselor for assistance in test selection and interpretation.
- **Pre-authorization support.** Through its relationships with health plans across the United States, Quest Diagnostics helps patients identify if BRCAvantage testing is covered by their individual plan.
- **National access to testing.** After a physician orders a test, patients can submit blood specimens for testing at Quest's

about 2,000 patient service centers located across the United States, for geographic convenience unmatched by any other BRCA test provider.

"When it comes to genetic testing for cancer risk, a test result alone is not enough. Every patient deserves personalized support as she or he grapples with highly personal, life changing decisions," said Frederic Waldman M.D., Ph.D., medical director, cancer diagnostics, Quest Diagnostics. "We created BRCAVantage Plus, like our other BRCAVantage offerings, to deliver diagnostic insights within a holistic, personalized and supportive care model. This is the best way to ensure patients can access reliable, appropriate testing for them and their families and are empowered to use that information to improve their health and well-being."

BRCAVantage Plus is not a general screening test. It may be appropriate for individuals who have a personal history of breast cancer and/or a family history consistent with hereditary breast cancer or a variety of other inherited genetic syndromes. Some individuals may be at higher risk for inherited breast cancers, including those of Ashkenazi Jewish heritage and with a personal and family history of breast and ovarian cancers at age 45 or younger.

Quest Diagnostics is a leader in genetic, cancer and women's health diagnostics. For more information on the company's BRCAVantage offerings, visit www.BRCAVantage.com or call 866-GENE-INFO.

About Quest Diagnostics

Quest Diagnostics is the world's leading provider of diagnostic information services that patients and doctors need to make better healthcare decisions. The company offers the broadest access to diagnostic information services through its network of laboratories and patient service centers, and provides interpretive consultation through its extensive medical and scientific staff. Quest Diagnostics is a pioneer in developing innovative diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional information is available at QuestDiagnostics.com. Follow us at [Facebook.com/QuestDiagnostics](https://www.facebook.com/QuestDiagnostics) and [Twitter.com/QuestDX](https://twitter.com/QuestDX).

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