

DATE:	29 April 2024
TO:	All Zones
FROM:	APL Genetics and Genomics, Molecular Genetics (North and South)
RE:	Germline Genetic Testing for Breast and Ovarian Cancer Panel Change

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Key Message

- The following cancer panels will be retired:
 - Breast Ovarian Cancer Panel, Core
 - Breast Ovarian Cancer Panel, Extended
 - Ovarian Cancer Panel
- A new panel Breast/Ovarian/Prostate Cancer Panel will replace the retired panels. This panel consists of the Ovarian Cancer Panel genes with the addition of *BARD1* and removal of *NBN*. Complete gene list (18 genes): *ATM, BARD1, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, EPCAM, MLH1, MSH2, MSH6, PALB2, PMS2, PTEN, RAD51C, RAD51D, STK11, TP53*
- There are no changes to patient eligibility/ordering criteria for hereditary cancer or to ordering restrictions. Updated testing is not indicated for patients tested with one of the retired panels.

Background

- *BARD1* is associated with an increased risk of breast cancer in females and clinical practice guidelines exist for increased breast cancer screening for females with a likely pathogenic/pathogenic variant in this gene (NCCN Genetic/Familial High-risk Assessment: Breast, Ovarian and Pancreatic v2.2024). Therefore, this gene is being added.
- *NBN* is being removed as there is insufficient evidence for an increased cancer risk in carriers of this gene. Clinical practice guidelines do not make any recommendations for increased screening or risk reducing surgeries for patients carrying a likely pathogenic/pathogenic variant in one copy of this gene. Biallelic likely pathogenic/pathogenic variants in this gene are associated with Nijmegen breakage syndrome. Genetic testing for that indication remains available via the Fanconi Anemia and DNA repair disorders panel.
- The Ovarian Cancer, Breast Ovarian Core and Breast Ovarian Extended Panels are being retired and replaced by the Breast/Ovarian/Prostate Cancer Panel. This will simplify ordering practices and streamline testing in the laboratory.

How this will impact you

- There are no changes to ordering criteria, ordering restrictions, or ordering method. Samples analyzed in the lab after April 8, 2024, will have the new panel. However, the test name will reflect the test ordered. Refer to the methodology section of the patient report to confirm which genes were included.

Action Required

- Continue to order testing as indicated noting the change in panel content.



- Refer to the test directory <https://www.albertahealthservices.ca/webapps/labservices/indexAPL.asp> for panel content, ordering restrictions and instructions. Refer to APL Genetics and Genomics website (<https://www.albertahealthservices.ca/lab/page8667.aspx>) for additional resources.

Effective April 15, 2024

Questions/Concerns

- Molecular Genetics Laboratory Genetic Counsellors
 - North 780-407-1015
 - South 403-955-3097

Approved by

- Dr. Dennis Bulman, Medical/Scientific Director, Provincial Genetics and Genomics Program, APL
- Dr. Carolyn O'Hara, Chief Medical Laboratory Officer (Interim), APL

Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.