

# CancerNext®

## Product Summary

### Guidelines Recommend Genetic Testing For Hereditary Cancer



**The American Society of Clinical Oncology (ASCO)** recommends that genetic testing be offered to individuals with suspected inherited (genetic) cancer risk in situations where test results can be interpreted, and when they affect medical management of the patient. It is sufficient for cancer risk assessment to evaluate genes of established clinical utility that are suggested by the patient's personal and/or family history.<sup>1</sup>

**The United States Preventive Services Task Force (USPSTF)** recommends that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer, or who have an ancestry associated with breast cancer susceptibility 1 and 2 (*BRCA1/2*) gene mutations with an appropriate brief familial risk assessment tool. Women with a positive result on the risk assessment tool should receive genetic counseling and, if indicated after counseling, genetic testing.<sup>2</sup>





### Patients with a Personal and/or Family History Suggestive of Hereditary Cancer May Benefit From CancerNext Genetic Testing

If your patient has a personal or family history of **ANY** of the following signs of hereditary cancer, guidelines recommend genetic testing\*:

| CANCER TYPE  | MULTIPLE CANCERS OR OTHER CLINICAL RISK FACTORS   | EARLY-ONSET CANCERS   | ANCESTRY                                   |
|--|---|---|--|
| <p>MALE BREAST</p> <p>OVARIAN</p> <p>PANCREATIC</p> <p>METASTATIC PROSTATE</p> | <p><b>2 OR MORE</b> primary cancers in the same person</p> <p><b>3 OR MORE</b> cancers on the same side of the family</p> <p><b>10 OR MORE</b> colorectal polyps in a person's lifetime</p> | <p><b>ANY OF THE FOLLOWING CANCERS DIAGNOSED BEFORE 50 YEARS OF AGE:</b></p> <p>Breast, colorectal, uterine</p> | <p>ASHKENAZI JEWISH WITH BREAST CANCER</p> |

### Results of Genetic Testing May Inform Personalized Medical Management

The potential benefits of genetic testing for hereditary cancer include:

|   |  |  |   |
|---|--|--|---|
|  <p>Option to modify frequency and initial age of cancer screening</p> |  <p>Consideration of risk-reducing measures</p> |  <p>Option to tailor treatment strategies<sup>3-11</sup></p> |  <p>Ability to identify at-risk family members</p> |
|---|--|--|---|

\* Adapted from published genetic testing guidelines

# CancerNext Genes and Associated Cancers



14-21 Day Turnaround Time



Genes associated with increased risks for at least one of 8 major cancers



NCCN® management guidelines available for most genes

| GENE(S)                                    | ASSOCIATED CANCERS** |         |            |         |            |          |          |         |       |
|--|----------------------|---------|------------|---------|------------|----------|----------|---------|-------|
|  | Breast               | Ovarian | Colorectal | Uterine | Pancreatic | Prostate | Melanoma | Stomach | Other |
| APC <sup>^</sup>                           |                      |         | ✓          |         | ✓          |          |          | ✓       | ✓     |
| ATM <sup>^</sup>                           | ✓                    |         |            |         | ✓          | ✓        |          |         |       |
| AXIN2 <sup>^</sup>                         |                      |         | ✓          |         |            |          |          |         |       |
| BARD1                                      | ✓                    |         |            |         |            |          |          |         |       |
| BRCA1, BRCA2 <sup>^</sup>                  | ✓                    | ✓       |            |         | ✓          | ✓        | ✓        |         |       |
| BRIP1 <sup>^</sup>                         |                      | ✓       |            |         |            |          |          |         |       |
| BMPR1A, SMAD4 <sup>^</sup>                 |                      |         | ✓          |         |            |          |          | ✓       |       |
| CDH1 <sup>^</sup>                          | ✓                    |         |            |         |            |          |          | ✓       |       |
| CDK4                                       |                      |         |            |         |            |          | ✓        |         |       |
| CDKN2A <sup>^</sup>                        |                      |         |            |         | ✓          |          | ✓        |         |       |
| CHEK2 <sup>^</sup>                         | ✓                    |         | ✓          |         |            | ✓        |          |         | ✓     |
| DICER1                                     |                      | ✓       |            |         |            |          |          |         | ✓     |
| EPCAM, MLH1, MSH2, MSH6, PMS2 <sup>^</sup> |                      | ✓       | ✓          | ✓       | ✓          | ✓        |          | ✓       | ✓     |
| GREM1, POLD1, POLE <sup>^</sup>            |                      |         | ✓          |         |            |          |          |         |       |
| HOXB13                                     |                      |         |            |         |            | ✓        |          |         |       |
| MSH3 <sup>^</sup>                          |                      |         | ✓          |         |            |          |          |         |       |
| MUTYH <sup>^</sup>                         |                      |         | ✓          |         |            |          |          |         | ✓     |
| NBN <sup>^</sup>                           |                      |         |            |         |            |          |          |         | ✓     |
| NF1 <sup>^</sup>                           | ✓                    |         |            |         |            |          |          |         | ✓     |
| NTHL1 <sup>^</sup>                         |                      |         | ✓          |         |            |          |          |         |       |
| PALB2 <sup>^</sup>                         | ✓                    | ✓       |            |         | ✓          | ✓        |          |         |       |
| PTEN <sup>^</sup>                          | ✓                    |         | ✓          | ✓       |            |          | ✓        |         | ✓     |
| RAD51C, RAD51D <sup>^</sup>                | ✓                    | ✓       |            |         |            |          |          |         |       |
| SMARCA4                                    |                      | ✓       |            |         |            |          |          |         | ✓     |
| STK11 <sup>^</sup>                         | ✓                    | ✓       | ✓          |         | ✓          |          |          | ✓       | ✓     |
| TP53 <sup>^</sup>                          | ✓                    | ✓       | ✓          | ✓       | ✓          | ✓        | ✓        | ✓       | ✓     |

\*\* This figure depicts only primary cancer risks and does not specify other important gene-specific associated cancers

<sup>^</sup> NCCN Guidelines available



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## REFERENCES

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