Ambry Genetics®
A Konica Minolta Company

CancerNext

REFERENCE GUIDE

August 2018

There is no room for doubt when it comes to making important life impacting healthcare decisions. By providing advanced confirmation genetic testing for hereditary cancer, we can help you make more informed and reliable healthcare decisions with your patients.

The more accurate the results, the more insight you have to better treat your patients.

American Society of Clinical Oncology (ASCO)

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.

Adapted from J Clin Oncol., 2015.

Why Is Genetic Testing Important?

KEY BENEFITS

Identifying patients with a genetic predisposition to cancer can allow informed recommendations and personalized medical management that significantly decrease cancer risks and improve overall survival rates.

- Option to modify frequency and initial age of mammogram/breast MRI, colonoscopy, prostate cancer screening, or other screening as appropriate
- Consideration of prophylactic mastectomy, colectomy, or other risk-reducing measures, as appropriate
- Option to tailor chemotherapy strategies and/or determine eligibility for clinical trials
- Identify at-risk family members

Identify Patients Who May Need Genetic Testing

If your patient or their family members have any of the following signs* for hereditary cancer, consider genetic testing:

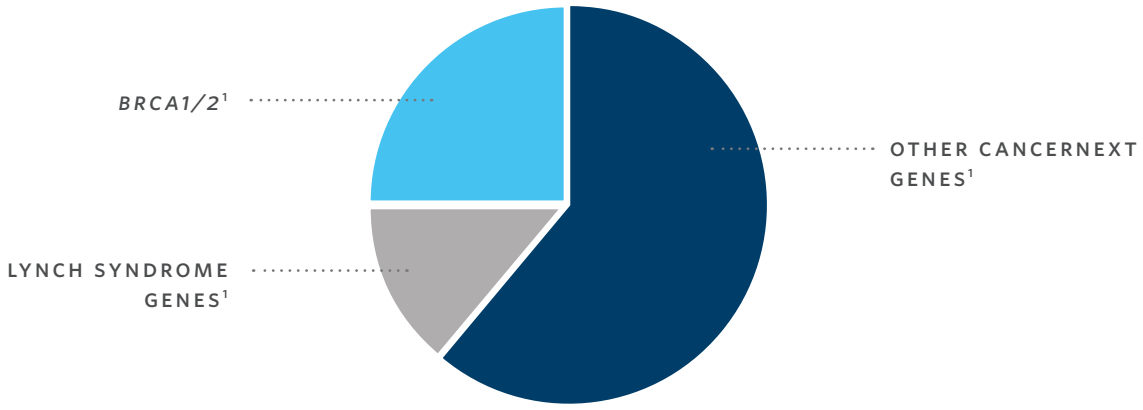
Multiple	**2 OR MORE** primary cancers in the same person	**3 OR MORE** cancers on the same side of the family	**10 OR MORE** colorectal polyps in a person's lifetime
Young	**ANY OF THE FOLLOWING CANCERS DIAGNOSED ≤50Y:** Breast, colorectal, uterine		
Rare	**MALE BREAST CANCER, OVARIAN CANCER**		
Ancestry	**ASHKENAZI JEWISH AND HISTORY OF BREAST OR PANCREATIC CANCER**		

** Adapted from published genetic testing guidelines*

CancerNext Mutation Distribution

ORDERING THE RIGHT TEST CAN PROVIDE THE MOST ACCURATE AND COMPREHENSIVE ANSWERS

Over 1 million people are diagnosed with cancer each year. About 5-10% of those are hereditary. For patients tested with CancerNext, *BRCA1/2* and Lynch syndrome only tell part of the story.



Ambry collabrorated in a study of >34,000 individuals revealing that 22% of patients identified to have Lynch syndrome, only met NCCN® guidelines for *BRCA1/2* genetic testing.[2] Therefore, CancerNext may identify unexpected hereditary cancer syndromes, which may have significant implications for medical management.

1. Ambry internal data
2. Espenschied C, *et al.* J Clin Oncol., 2017.

Finding Answers Through Quality Genetic Testing

CANCERNEXT GENES AND ASSOCIATED CANCER RISKS

Comprehensive panel giving you more information to make better treatment and management decisions

- 34 genes associated with increased risks for at least one of 8 major cancers
- Tests for 10 well-described hereditary cancer syndromes among other clinically actionable genes
- NCCN® management guidelines available for most genes
- Average turnaround time**: 11.5 calendar days

GENE(S)	ASSOCIATED CANCERS*								
	Breast	Ovarian	Colorectal	Uterine	Pancreatic	Prostate	Melanoma	Stomach	Other
APC			✓		✓			✓	✓
ATM	✓				✓	✓			
BARD1	✓								
BRCA1, BRCA2	✓	✓			✓	✓	✓		
BRIP1	✓	✓							
BMPR1A, SMAD4			✓					✓	
CDH1	✓							✓	
CDK4							✓		
CDKN2A					✓		✓		✓
CHEK2	✓	✓	✓			✓			✓
DICER1		✓							✓
EPCAM, MLH1, MSH2, MSH6, PMS2		✓	✓	✓	✓	✓		✓	✓
GREM1, POLD1, POLE			✓						
HOXB13						✓			
MRE11A	✓								
MUTYH	✓		✓	✓					
NBN	✓					✓			✓
NF1	✓								✓
PALB2	✓	✓			✓	✓			
PTEN	✓		✓	✓					✓
RAD50	✓								
RAD51C, RAD51D	✓	✓							
SMARCA4		✓							✓
STK11	✓	✓	✓		✓			✓	✓
TP53	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

*** Ambry's turnaround time represents the time that it takes for Ambry to perform the requested testing. When all necessary clinical and family history information is provided with the sample, results are typically completed within 14 days. We will notify you in the unusual event that results will take longer than 21 days.*

NOTE: Additional hereditary cancer panel testing options are available. Visit ambrygen.com/hereditary-cancer-panels or ask your local Ambry account manager for more details.

Over 1 Million Tests Completed

MOVING SCIENCE FORWARD

Purposeful Confirmatory Testing

Many labs validate their tests based on certain limited studies. That's why we participated and led the largest study of its kind (20,000 cases) guiding us to utilize confirmatory testing when we see specific well-defined thresholds. Our mission is to get it right the first time.

Understanding Disease Better Through Free Data Sharing

Identifying an individual's genetic information is nothing new—it's what we do with it that is unique. When labs share genomic information, we can together accelerate the understanding of human disease. Through AmbryShare, we leverage de-identified information to collaborate with others and help people everywhere find answers.

Free Testing for Family Members

We offer specific site analysis (SSA) at no additional cost for family members following single gene or multigene panel testing of the first family member (proband) within 90 days of the original Ambry report date.

Ambry's Translational Genomics (ATG) Lab

As an advanced diagnostic lab, it's our responsibility to ensure the results you get from us are accurate and that classification is as complete and robust as possible. Our ATG lab is a unique laboratory that provides an additional service at no additional cost for you and your patients to generate more precise data potentially bringing clarity to some variants of unknown significance (VUS). This helps to actively drive down the rate of VUS results and can give you an increased understanding of your patient's results, so you can better provide medical management recommendations and improve health outcomes.

About Ambry

Just as no two fingerprints are alike, the way disease presents itself in every individual is different. Since 1999, our mission has always been about understanding disease better, so treatments and cures can be found faster. Every sample that arrives in our lab is viewed as a person with a life and a story that is unique to only them. By providing advanced confirmation genetic testing for inherited and non-inherited diseases, we can help you make more informed and responsible treatment decisions with your patients.

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