The Advancement of Hereditary Cancer Testing
Approximately 5% to 10% of all cancers are hereditary

Hereditary Cancer Risk Assessment and Testing is essential to optimize patients’ medical management.

Patient management recommendations are vastly different for those with a gene mutation associated with hereditary cancer risk:

- Use of risk-reducing surgeries or medications as well as screenings that would not be recommended in the general population
- Initiating risk-reducing surgeries or medications or screenings at younger ages
- Conducting screenings more frequently

A comprehensive hereditary cancer risk assessment impacts medical decisions and may reduce the occurrence of a first or subsequent primary cancer.

Introducing Myriad myRisk™ Hereditary Cancer Panel:

- A 25-gene panel for the identification of clinically significant mutations impacting inherited risks for eight important cancers: breast, colorectal, ovarian, endometrial, gastric, pancreatic, melanoma and prostate.
- Blends genetic test status AND personal/family cancer history into clinically significant risk assessment and follow-up.
- Provides specific management recommendations for patients testing positive AND negative based on guidelines of leading professional medical societies.

Evaluating cancer family history based on single syndromes is too narrow and can lead to uncertainty

Are there other genetic factors causing her cancer?

What is this patient’s risk for a second cancer?

Does this patient need additional testing?

How do I manage this patient?

How do I advise this patient to talk to her family?

Are there other genetic factors causing her cancer?
Mutations Identified in Patients with Breast Cancer

Mutations Identified in Patients Suspicious for LS

Mutations Identified in Patients with Ovarian Cancer

Myriad myRisk advances Hereditary Cancer Testing with comprehensive knowledge of cancer risk and management

A significant number of patients meet criteria for multiple syndromes

Clinical research validated this dilemma

Emerging data confirms this dilemma across multiple patient presentations

In 1,781 Patients with Breast Cancer

In 1,260 Patients Suspicious for Lynch Syndrome (LS)

In 648 Patients with Ovarian Cancer

HBOC or Lynch Testing alone may miss important mutations for Hereditary Cancer

7% of HBOC patients meet criteria for Lynch

30% of Lynch patients meet criteria for HBOC

Clinical dilemma

Genetic Overlap

Multiple genes can increase the risk of a single cancer

Multiple cancers can be associated with a single gene


Other

BRCA1/2

BRCA1/2

BRCA1/2

BRCA1/2

BRCA1/2

BRCA1/2

BRCA1/2
The solution to the clinical dilemma

Myriad myRisk report provides significant information and clear direction.

Confidence that the known genetic factors have been evaluated.
Clear management based on personal/family history.

Breast Cancer at age 39

25% of patients with negative genetic result had management changes based on information gained from the Myriad myRisk Management Tool.

Advaning your Hereditary Cancer Testing approach

Evaluate patients’ family histories and identify patients for increased risk of hereditary cancer.

An individual with a personal or family history of any one of the following.

MULTIPLE
A combination of cancers on the same side of the family
• 2 or more: breast / ovarian / prostate / pancreatic cancer
• 2 or more: colorectal / endometrial / ovarian / gastric / pancreatic / other cancers (i.e., ureter/renal pelvis, biliary tract, small bowel, brain, sebaceous adenomas)
• 2 or more: melanoma / pancreatic cancer

YOUNG
Any 1 of the following cancers at age 50 or younger
• Breast Cancer
• Colorectal Cancer
• Endometrial Cancer

RARE
Any 1 of these rare presentations at any age
• Ovarian Cancer
• Breast: male breast cancer or triple negative breast cancer
• Colorectal cancer with abnormal MSI/HIC, MSI-associated histology**
• Endometrial cancer with abnormal MSI/HIC
• 10 or more gastrointestinal polyps*

**Presence of tumor infiltrating lymphocytes, Crohn’s-like lymphocytic reaction, enormous/signet-ring differentiation, or modulary growth pattern
* Adenomatous type
† Assessment criteria based on medical society guidelines. For these individual society guidelines go to http://www.myriadgenetics.eu/healthcare-professional-treating-diseases/professional-practice-guidelines/
‡ Family member includes first-, second-, and third-degree blood relatives on both your mother and your father’s side. Certain ancestors may have greater risk for hereditary cancer syndromes (e.g. Ashkenazic Jewish ancestry).

25% of patients with negative genetic result had management changes based on information gained from the Myriad myRisk Management Tool.
Myriad myRisk

- 40-50% More Mutations Identified\(^1\)\(^2\)
- >99.92% Validated Analytical Sensitivity\(^4\)
- Medical Management Guidelines from NCCN and Others
- 14-21 Days Turn Around Time

From Myriad, your trusted advisor

- Global Leader in Hereditary Cancer Risk Assessment
- 20+ Years of Experience
- Over 1 Million Patients Tested

Powered by Myriad myVision\(^\text{TM}\) Variant Classification

- Lifetime Commitment for Accurate Variant Interpretations
- >1 Million Invested in Developing Variant Classification Techniques and a Curated Database
  Supported by 30+ Scientists
- >99% certainty for Variant Reclassification\(^5\)\(^6\)

References:

A diagnostic test that detects gene mutations associated with eight major cancers.