Cancer Genetics Referrals: When to Refer to Genetics

- Genetic risk assessment and testing can be helpful in aiding in the care of individuals with a personal or family history of cancer.
- A genetic predisposition to developing cancer can be inherited through a mother or father for both males and females.
- Those with an unknown or limited family history can still be referred to genetics for evaluation.
- Genetic test results can:
  - Impact treatment recommendations
  - Aid in surgical management decision making
  - Inform unaffected individuals of future risks
  - Guide appropriate screenings

General Referral Guidelines for Cancer Indications

Individuals with any of the following in their personal or family history:

- A known genetic pathogenic variant/mutation identified in a cancer susceptibility gene
- Any of the following diagnosed at any age:
  - Ovarian cancer (including fallopian tube and primary peritoneal cancers)
  - Male breast cancer
  - Pancreatic cancer
  - Metastatic prostate cancer
  - Medullary thyroid cancer
  - Pheochromocytoma/Paraganglioma
  - Adrenocortical carcinoma
- Any of the following diagnosed at a young age:
  - Breast cancer
  - Colorectal cancer
  - Endometrial cancer
  - Gastric cancer
  - Other cancer(s) diagnosed at unusually young ages
- Two or more cancers diagnosed in the same person
- A personal and/or family history of ≥ 3 cancers on the same side of the family
- Cancers with specific tumor characteristics reported from pathology:
  - Triple negative breast cancer
  - Colon, uterine or other cancers showing evidence of mismatch repair (MMR) deficiency, either by microsatellite instability (MSI) or loss of MMR protein expression at any age
- Individuals of Ashkenazi Jewish descent with a personal or family history of breast, ovarian, pancreatic, or high-grade prostate cancer
- Non-cancerous personal or family history that may indicate referral include:
  - ≥ 10 cumulative adenomatous polyps
  - ≥ 2 hamartomatous polyps
  - ≥ 5 serrated polyps proximal to sigmoid colon
  - Parathyroid, pituitary, or carcinoïd tumors
  - Dysmorphic features in addition to cancer history
  - Mucocutaneous hyperpigmentation of the mouth, lips, nose, eyes, genitalia, or fingers

Full referral guidelines are referenced on the back of this handout. If you are concerned about a patient’s personal or family history of cancer, a genetics professional can help determine if further risk assessment and/or genetic testing is indicated.
Cancers Associated with Common Hereditary Cancer Syndromes

<table>
<thead>
<tr>
<th>Hereditary Breast and Ovarian Cancer (HBOC) Syndrome</th>
<th>Lynch Syndrome</th>
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<tbody>
<tr>
<td>• Breast cancer</td>
<td>• Brain cancer (usually Glioblastoma)</td>
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<tr>
<td>• Ovarian cancer</td>
<td>• Small intestinal cancers</td>
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<tr>
<td>• Prostate cancer</td>
<td>• Sebaceous adenomas</td>
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<tr>
<td>• Pancreatic cancer</td>
<td>• Sebaceous carcinomas</td>
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<td>• Sarcoma</td>
<td>• Keratoacanthomas</td>
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<tr>
<td>• Adrenocortical carcinoma</td>
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<tr>
<td>• Thyroid cancer</td>
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<tr>
<td>• Brain tumor</td>
<td>• Colorectal cancer</td>
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<tr>
<td>• Leukemia</td>
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<tr>
<td>• Kidney cancer</td>
<td>• Pancreatic cancer</td>
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<tr>
<td>• Diffuse gastric cancer</td>
<td>• Ureter/renal pelvis cancers</td>
</tr>
<tr>
<td>• Mucocutaneous skin lesions</td>
<td>• Biliary tract cancer</td>
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Take Action

If your patient meets any of these criteria:

- Talk to your patient about recommendations for a genetics referral
- For assistance locating the nearest genetics service provider, in the New York-Mid-Atlantic Consortium (NYMAC) Region, please contact the Genetic Services Referral Call Center at 1-833-545-3218 or visit our website.

Guidelines and Recommendations (Links)

- HEREDITARY BREAST/OVARIAN CANCER
  National Comprehensive Cancer Network (NCCN) Guidelines for Genetic/Familial High-Risk Assessment: Breast and Ovarian
  US Preventative Services Task Force (USPSTF) Recommendations for BRCA-Related Cancer

- HEREDITARY COLORECTAL CANCER/POLYP SYNDROMES
  National Comprehensive Cancer Network (NCCN) Guidelines for Genetic/Familial High-Risk Assessment: Colorectal Evaluations of Genomic Applications in Practice and Prevention (EGAPP) through the CDC

- MULTIPLE CANCERS
  National Society of Genetic Counselors/American College of Medical Genetics and Genomics (NSGC/ACMG) Referral Indications for Cancer Predisposition Risk Assessment

Resources (Links)

- National Society of Genetic Counselors (NSGC) Find a Genetic Counselor
  A tool developed by NSGC for patients and providers to locate genetic counseling services in North America (U.S. and Canada).

- American Cancer Society (ACS)
  Provides resources regarding cancer diagnosis, treatment, research, support services, and support resources.

- American Society of Clinical Oncology (ASCO)
  Professional organization for oncology professionals with resources for providers and patients.

- American College of Obstetricians and Gynecologists (ACOG)
  Non-profit professional organization with guidelines and educational resources for improving women’s health.

- GeneReviews through the NIH
  Resource for providers about the diagnosis and management of patients with genetic conditions.

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