The National Comprehensive Cancer Network (NCCN, v 1.2018) has recommended the following guidelines for when to refer a patient for further genetic risk evaluation for a mutation in the BRCA1 or BRCA2 genes, which cause Hereditary Breast and Ovarian Cancer syndrome (HBOC):

- Any individual with an ovarian cancer, including fallopian tube and primary peritoneal cancers
- Any individual with a breast cancer meeting any of the following:
  - A known mutation in the family in a gene that is known to increase the risk for cancer
  - Diagnosed at or before age 50
  - Triple negative (estrogen, progesterone, and Her2 receptor negative) at or before age 60
  - Two breast cancer primaries in a single individual, can be bilateral or two distinct primary cancers in the same breast; do not have to be diagnosed at the same time
  - Male breast cancer
  - Also has a personal history of pancreatic cancer at any age
- Any individual with a breast cancer at any age, AND meeting one of the following family history criteria (close blood relatives include first-, second-, and third-degree relatives):
  - One or more close blood relative with breast cancer at or before the age of 50
  - One or more close blood relative with invasive ovarian, fallopian tube, or primary peritoneal cancer at any age
  - Two or more close blood relatives with breast, prostate (that is either metastatic or has a Gleason score of 7 or higher), and/or pancreatic cancer at any age
  - From a population at increased risk (Ashkenazi Jewish)
- Any individual with metastatic prostate cancer
- Any individual of Ashkenazi Jewish descent with breast, ovarian, or pancreatic cancer at any age
- Any individual with a personal and/or family history of three or more of the following (especially if diagnosed at age 50 or younger and can include multiple primaries in the same individual):
  - Breast
  - Pancreatic
  - Prostate (metastatic or Gleason score of 7 or higher)
  - Melanoma
  - Sarcoma

    - Adrenocortical carcinoma
    - Brain tumors
    - Leukemia
    - Diffuse gastric
    - Colon
    - Endometrial
    - Thyroid
    - Kidney

FAMILY HISTORY ONLY

- An individual with no personal history of cancer, but with a close relative with any of the following:
    - A known mutation in the family in a gene that is known to increase the risk for cancer
    - Two or more breast cancer primaries in a single individual
    - Two or more individuals with breast cancer primaries on the same side of the family, with at least one being diagnosed at or before age 50
    - Ovarian, fallopian tube, or primary peritoneal cancer
    - Male breast cancer
    - Breast cancer diagnosed at or before age 45 in a first- or second-degree relative
    - Three or more of the following (especially if diagnosed at age 50 or younger and can include multiple primaries in the same individual):
        - Breast
        - Pancreatic
        - Prostate (metastatic or Gleason score of 7 or higher)
        - Melanoma
        - Sarcoma
        - Adrenocortical carcinoma
        - Brain tumors
        - Leukemia
        - Diffuse gastric
        - Colon
        - Endometrial
        - Thyroid

- Kidney