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Clinician Management Resource for *BRCA2*

This overview of clinical management guidelines is based on this patient's positive test result for a *BRCA2* gene mutation. Unless otherwise stated, medical management guidelines used here are limited to those issued by the National Comprehensive Cancer Network® (NCCN®)[1] in the U.S. Please consult the referenced guideline for complete details and further information.

Clinical correlation with the patient's past medical history, treatments, surgeries and family history may lead to changes in clinical management decisions; therefore, other management recommendations may be considered. Genetic testing results and medical society guidelines help inform medical management decisions but do not constitute formal recommendations. Discussions of medical management decisions and individualized treatment plans should be made in consultation between each patient and his or her healthcare provider, and may change over time.

SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Female Breast Cancer		
Breast awareness • Women should be familiar with their breasts and promptly report changes to their healthcare provider.	18 years old	Periodic and consistent
Clinical Breast Exam	25 years old	Every 6-12 months
Breast Screening* • Breast MRI with contrast • Mammography with consideration of tomosynthesis	25-29 years old	Individualized
	30-75 years old	Every 12 months
	>75 years old	Individualized
Consider options for risk reduction agents, such as chemoprevention (i.e. tamoxifen, raloxifene)	Individualized	Individualized
Ovarian Cancer		
Recommend risk-reducing salpingo-oophorectomy (RRSO)**	Typically 35 to 40 years old, and upon completion of child bearing	N/A
If RRSO not elected, transvaginal ultrasound combined with serum CA-125, although of uncertain benefit, may be considered	30-35 years old	Clinician's discretion
Consider investigational imaging and screening studies, when available in the context of a clinical trial	Individualized	Individualized
Consider options for risk reduction agents, such as chemoprevention (i.e. oral contraceptives)	Individualized	Individualized
Male Breast Cancer		
Breast self-exam training and education	35 years old	Periodic and consistent
Clinical breast exam	35 years old	Every 12 months
Prostate Cancer		
Recommend prostate cancer screening	40 years old	Clinician's discretion

* *Women treated for breast cancer, and have not undergone bilateral mastectomy: follow screening as described.*

** *Ovarian cancer onset in patients with BRCA2 mutations is an average of 8-10 years later than in patients with BRCA1 mutations. Therefore, it is reasonable to delay RRSO for management of ovarian cancer risk until age 40-45y in patients with BRCA2 mutations , unless age at diagnosis in the family warrants earlier age for consideration of prophylactic surgery.*

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic. V1.2020. © National Comprehensive Cancer Network, Inc. 2019. All rights reserved. Accessed December 26, 2019. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

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SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Melanoma		
General risk management, such as annual full-body skin examination and minimizing UV exposure	Individualized	Annual, or shorter intervals if indicated
Pancreatic Cancer		
For individuals with exocrine pancreatic cancer in >1 first-or second-degree relative on the same side of the family as the identified pathogenic/likely pathogenic germline variant, consider pancreatic cancer screening.^	50 years (or 10 years younger than the earliest exocrine pancreatic cancer diagnosis in the family)	Annually (with consideration of shorter intervals if worrisome abnormalities seen on screening)
Other		
Counsel for risk of autosomal recessive condition in offspring • If both parents have a *BRCA2* mutation, each of their children have a 25% chance to have a condition such as Fanconi anemia	Individualized	N/A

^ For individuals considering pancreatic cancer screening, the Guidelines recommends that screening be performed in experienced high-volume centers, ideally under research conditions. The Guidelines recommends that such screening only take place after an in-depth discussion about the potential limitations to screening, including cost, the high incidence of pancreatic abnormalities, and uncertainties about the potential benefits of pancreatic cancer screening.

The Guidelines recommends that screening be considered using annual contrast-enhanced MRI/MRCP and/or EUS, with consideration of shorter screening intervals for individuals found to have worrisome abnormalities on screening. The Guidelines emphasizes that most small cystic lesions found on screening will not warrant biopsy, surgical resection, or any other intervention.

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One Enterprise, Aliso Viejo, CA 92656 USA Toll Free +1 866 262 7943 Fax +1 949 900 5501 ambrygen.com