

# The Impact of a Nurse-Led High-Risk Referral Protocol Implemented in a Comprehensive Breast Center

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This quality improvement project implemented a nurse-led high-risk screening referral protocol for earlier identification of women at increased risk for breast cancer. The Breast Cancer Risk Assessment Tool was used at the mammography appointment, which led to improved electronic communication and significant increases in high-risk clinic consultations, breast magnetic resonance imaging, genetic counseling, and additional testing. Patients reported high satisfaction with advanced practice providers, which indicates increased comfort levels.

## AT A GLANCE

- Breast cancer risk assessment at mammography can identify women at high risk and promote enhanced cancer screening.
- Nurse-driven referral protocols provided a model for risk communication, expansion of personalized breast health services, and earlier cancer detection.
- A surgical oncology advanced practice provider team consistently delivered patient education in alignment with best practices and attained high patient satisfaction.

## KEYWORDS

breast cancer; mammogram; referrals; risk assessment; advanced practice provider

## DIGITAL OBJECT IDENTIFIER

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The practice of assessing an individual's risk for breast cancer using an objective tool and developing a tailored screening plan is well supported in the literature (National Comprehensive Cancer Network [NCCN], 2024a, 2024b; U.S. Preventive Services Task Force, 2019). The Breast Cancer Risk Assessment Tool (BCRAT) is a validated risk assessment instrument that calculates the five-year and lifetime risk of breast cancer (National Cancer Institute, n.d.). The NCCN (2024a) defines high risk in this context as having a greater than 20% lifetime risk of developing breast cancer.

## Background

Breast carcinoma is the second most frequently diagnosed cancer in American women, behind only skin cancer, with incidence rates increasing by 0.6% per year (American Cancer Society [ACS], 2024). Of all cancer types, breast cancer has the highest overall treatment costs, accounting for \$29.8 billion in spending in 2020 (Centers for Disease Control and Prevention, 2024). About 5%–10% of cancers are caused by hereditary genetic variants, and these cancer syndromes place some patients at higher risk than the general population (ACS, 2021). Along with screening mammography, recommendations for women at high risk for breast cancer include clinical breast examinations every 6–12 months, genetic evaluation, breast magnetic resonance imaging (MRI), and risk-reducing strategies (NCCN, 2024a). Low uptake of services for individuals at high risk for breast cancer has been associated with patient preferences (Michaels et al., 2023), inadequate provider education (Amornsiripanitch et al., 2021; Michaels et al., 2023), time limitations (Michaels et al., 2023; Patel et al., 2022), lack of breast cancer knowledge, and lack of supportive social norms (Conley et al., 2023).

Although breast cancer affects people of all racial and ethnic groups, variations exist within different populations. Black women in the United States are more often diagnosed when aged younger than 40 years, are more likely to have advanced disease, and have the highest mortality rates (ACS, 2024; Chlebowski, 2024). Early-stage breast carcinoma is more often diagnosed in Asian, Pacific Islander, and White women as compared to their Black, Hispanic, American Indian, and Alaska Native women counterparts (ACS, 2024). Less than 1% of all cases affect men (ACS, 2024).