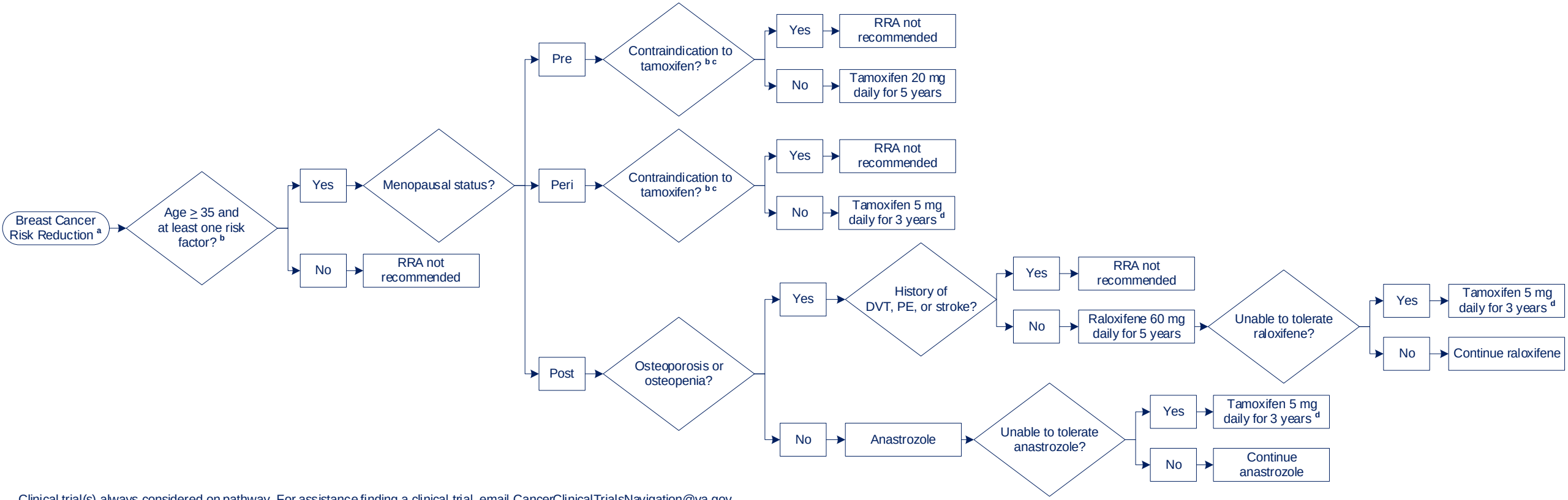
Oncology Clinical Pathways
Breast Cancer Risk Reduction

February 2025 – V1.2025

Table of Contents

Breast Cancer Risk Reduction



Clinical trial(s) always considered on pathway. For assistance finding a clinical trial, email CancerClinicalTrialsNavigation@va.gov.

[a] **High Risk Patients** screening for high risk patients includes annual mammogram and annual MRI for patients with ≥20% lifetime risk based on risk models such as Tyrer-Cuzick; common practice is alternating mammogram and MRI every 6 months; if assistance is needed, refer to a local high risk breast clinic or the National TeleOncology high risk breast clinic for discussion of risk-reducing strategy

[b] **Risk Factors** include Gail Model ≥ 1.7% at 5 years, Tyrer-Cuzick > 5% at 10 years, received chest irradiation prior to age 30, ADH/ALH, LCIS, or pathogenic/likely pathogenic germline genetic variant

[c] **Tamoxifen Contraindications** history of DVT, PE, or stroke; known hypersensitivity to tamoxifen, pregnancy, uterine malignancy, concomitant warfarin therapy

[d] **Tamoxifen** if providing 10mg, take one tablet every other day

ADH/ALH Atypical Ductal Hyperplasia/Atypical Lobular Hyperplasia
LCIS Lobular carcinoma in situ
RRA Risk Reducing Agent

Pathogenic/Likely Pathogenic Germline Genetic Variant for an Increased Risk of Breast Cancer

Pathogenic/Likely Pathogenic Germline Genetic Variant for an Increased Risk of Breast Cancer [a] [b]	
ATM	• Screening: annual mammogram starting at age 40 years and consider breast MRI starting at age 30-35 years • RRM: evidence insufficient; manage based on family history
BARD1	• Screening: annual mammogram and consider breast MRI starting at age 40 years • RRM: evidence insufficient; manage based on family history
BRCA1 Male Birth Sex	• Self-exam training and clinical breast exam q12m starting at age 35 years
BRCA1 Female Birth Sex	• Screening: annual breast MRI starting at age 25 years; mammogram and breast MRI age 30-75 years; >75 years manage based on individual basis • RRM: discuss option of RRM; RRSO reduces breast cancer risk approximately by 50% if performed prior to menopause; refer to GynOnc
BRCA2 Male Birth Sex	• Self-exam training and clinical breast exam q12m starting at age 35 years; consider annual mammogram starting at age 50 years or 10 years before the earliest known male breast cancer in the family
BRCA2 Female Birth Sex	• Screening: annual breast MRI starting at age 25 years; mammogram and breast MRI age 30-75 years; >75 years manage based on individual basis • RRM: discuss option of RRM; RRSO reduces breast cancer risk approximately by 50% if performed prior to menopause; refer to GynOnc
CDH1	• Screening: annual mammogram and breast MRI starting at age 30 • RRM: discuss option of RRM
CHEK2	• Screening: consider breast MRI starting at age 30-35 years; annual mammogram starting at age 40 years • RRM: evidence insufficient; manage based on family history
NF1	• Screening: annual mammogram starting at age 30 years and breast MRI starting from ages 30-50 years • RRM: evidence insufficient; manage based on family history
PALB2 Male Birth Sex	• Self-exam training and clinical breast exam q12m starting at age 35 years
PALB2 Female Birth Sex	• Screening: annual mammogram starting and breast MRI at age 30 years • RRM: discuss option of RRM
PTEN	• Screening: annual mammogram and breast MRI starting at age 30 years or 10 years before the earliest known breast cancer in the family up to 75 years of age; >75 years manage based on individual basis • RRM: discuss option of RRM
RAD51C, RAD51D	• Screening: annual mammogram and breast MRI starting at age 40 years • RRM: evidence insufficient; manage based on family history
STK11	• Screening: annual mammogram and breast MRI starting at age 30 years • RRM: discuss option of RRM
TP53	• Screening: annual breast MRI age 20-29 years, mammogram and breast MRI age 30-75 years, >75 years manage based on individual basis • RRM: discuss option of RRM
BRIP1, CDKN2A, EPCAM, MSH2, MLH1, MSH6, PMS2	• Screening and RRM: evidence insufficient; manage based on family history

[a] **High Risk Patients** screening includes annual mammogram and annual MRI for patients with ≥20% lifetime risk based on risk models such as Tyrer-Cuzick; common practice is alternating mammogram and MRI every 6 months

[b] **Germline Genetic Considerations** pathogenic/likely pathogenic germline findings may also increase risk for other cancers; consider options to address other risk management such as genetics annual follow-up clinic

RRM Risk-Reducing Mastectomy
RRSO Risk Reducing Salpingo Oophorectomy