Breast Cancer Risk Reduction Therapy

RISK ASSESSMENT

Does patient meet criteria?

Pre-menopausal

Tamoxifen

Post-menopausal

Any of the following:

- LCIS
- AH
- Lifetime risk ≥ 20% by Gail or Tyrer-Cuzick models
- Prior thoracic XRT at age 10-30 years old

Aromatase inhibitors (AI)
(exemestane or anastrozole)

Life time risk < 20% by Gail or Tyrer-Cuzick models

Assess balance of benefits and harms:

- Tamoxifen
- Raloxifene
- Aromatase inhibitors (AI)
(exemestane or anastrozole)

Patient not a candidate for risk reduction treatment

Yes

No

Risk Categories

Women ≥ 35 years old, and one of the following:

- History of lobular carcinoma in situ (LCIS) up to age 65 years old
- Atypical hyperplasia (AH) (ductal and lobular) up to age 65 years old
- Gail model 5 year breast cancer risk ≥ 1.7%
- Tyrer-Cuzick model 10 year breast cancer risk ≥ 5%
- Prior thoracic radiation therapy (XRT) at age 10-30 years old
- Life expectancy ≥ 10 years
- No contraindications to risk reduction therapy

Patients without breast prophylactic mastectomy (BPM)

1. Limited data regarding risk reduction therapies in women with prior thoracic XRT
2. Prior history of a thromboembolic event is an absolute contraindication. Adequately treated endometrial hyperplasia or early-stage endometrial cancer is not a contraindication to the use of tamoxifen.
3. Starting dose of tamoxifen is 20 mg by mouth once daily; may reduce to 5 mg once daily (or 10 mg every other day) if needed for patient tolerance
4. Lower risk of uterine cancer but less long-term benefit
5. Limited data regarding AIs in women with proliferative breast lesions
6. Off-label (Not FDA approved)
7. Tables that can be used to determine women for whom the benefits outweigh the risks can be found at Freedman, A. N., Yu, B., Gail, M. H., Costantino, J. P., Graubard, B. I., Vogel, V. G., … McCaskill-Stevens, W. (2011). Benefi t-risk assessment for breast cancer chemoprevention with raloxifene or tamoxifen for women age 50 years or older. Journal of Clinical Oncology, 29(17), 2327.
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SUGGESTED READINGS


This risk reduction algorithm is based on majority expert opinion of the Breast Cancer Risk Reduction Therapy workgroup at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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