Clinical Practice Guidelines - Breast Disease Site

Guideline Title:	Chemoprevention of Breast Cancer in High Risk Patients - **Summary**	**Date:**	**(O):**	May 31, 2011
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Tumor Group:	Breast Disease Site Group	**Page:**		1 of 3
Issuing Authority:	Dr. Kara Laing Clinical Chief, Cancer Care Program	**Date Signed:**		May 23, 2012
Adapted From:	Alberta Health Services "risk reduction and surveillance strategies for individuals at high genetic risk for breast and ovarian cancer" guideline, April 2011 (11).			

Target Population:

Patients who meet the high risk criteria for the development of breast cancer.

Recommendations:

All premenopausal patients ≥ 35 years of age and postmenopausal patients who are deemed high risk for the development of breast cancer, and with no contraindications, should be offered tamoxifen 20mg/daily taken orally, for five consecutive years. Raloxifene 60mg/daily taken orally, for five consecutive years is an option for postmenopausal patients only. Exemestane 25mg/daily taken orally, for five consecutive years is also an option for postmenopausal patients only.

Supporting Evidence:

The current standard of treatment offered to high risk patients would be tamoxifen 20mg/daily taken orally, for five consecutive years, as per the National Surgical Breast and Bowel Project (NSABP) P-1 clinical trial (1,2). The conclusion reached from this trial suggests that tamoxifen reduces the risk of invasive breast cancer by 49% compared to placebo. The Early Breast Cancer Trialists' meta-analysis (3) confirmed that the risk of contralateral primary breast cancer is substantially reduced by 5 years of tamoxifen therapy in women with first breast cancers that are estrogen receptor-positive or have an unknown estrogen receptor status.

An alternative to tamoxifen for postmenopausal women is raloxifene 60mg/daily, taken orally, for five consecutive years, as per the STAR trial (Study of Tamoxifen and Raloxifene) (4). This trial concluded that raloxifene is as effective as tamoxifen in reducing the risk of invasive breast cancer. Also, findings suggest that though the risk of thromboembolic events and cataracts exist

with both SERMs, the risk appears to be less for raloxifene. However, raloxifene did not reduce the risk of developing ductal carcinoma insitu (DCIS) in the STAR trial.

Another alternative for postmenopausal patients is exemestane 25mg/daily, taken orally, for five consecutive years as per the recently published NCIC CTG MAP.3 clinical trial (5). In this large chemoprevention trial, 4560 women were randomly assigned to exemestane or placebo. At a median follow-up of 35 months, there was a 65% relative reduction in the annual incidence of invasive breast cancer in the exemestane arm compared to the placebo arm. No significant differences were noted between the two arms in terms of skeletal fractures, cardiovascular events, other cancers, or treatment-related deaths.

Qualifying Statements:

- A risk assessment should be carried out using a tool such as the Gail model (6), which takes into account the patient's own personal medical history, reproductive history, and history of breast cancer among first degree relatives, to determine the individual's own personal risk. A person determined to have a ≥ 1.66% five year risk of breast cancer is considered high risk according to the Gail model.
- The patient may be a genetic carrier of known mutations, such as BRCA1 and BRCA2 (7,8), as well as E-Cadherin gene mutations (9,10) and have already undergone genetic testing or are from families, with well-documented, pedigrees of known genetic carriers. There are also other patients who meet the criteria for high risk status, but may not have had genetic testing, or may not carry these particular mutations.
- The consultation with the medical oncologist will also include a thorough discussion with the patient of the known side effects of tamoxifen, raloxifene, or exemestane to allow the patient to make a fully informed treatment decision.

Disclaimer:

These guidelines are a statement of consensus of the Breast Disease Site Group regarding their views of currently accepted approaches to diagnosis and treatment. Any clinician seeking to apply or consult the guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

Contact Information:

For more information on this guideline, please contact Dr. Kara Laing MD FRCPC, Dr. H. Bliss Murphy Cancer Center, St. John's, NL; Telephone 709-777-8095. For the complete guideline on this topic or for access to any of our guidelines, please visit our Cancer Care Program website at www.easternhealth.ca

Literature Support:

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