A summary of prescribing recommendations from NICE guidance

Familial breast cancer

This guideline covers the classification and care of people at risk of familial breast cancer and the management of breast cancer and related risks in people with a family history of breast cancer. Recommendations apply to women and men.

<table>
<thead>
<tr>
<th>Definition of terms</th>
<th>First-degree relative</th>
<th>mother, father, daughter, son, sister, brother</th>
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<tbody>
<tr>
<td></td>
<td>Second-degree relative</td>
<td>grandparent, grandchild, aunt, uncle, niece, nephew, half-sister, half-brother</td>
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<td></td>
<td>Third-degree relative</td>
<td>great grandparent, great aunt, great uncle, first cousin, great grandchild, grand nephew, grand niece</td>
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Breast cancer risk category – see NICE guideline
- The risk of developing breast cancer depends on the:
  - nature of the family history,
  - number of relatives who have developed breast, ovarian or a related cancer,
  - age at which relatives developed breast cancer,
  - age of the person at risk.

Primary care: family history taking and initial assessment
- When a person without a personal history of breast cancer presents with breast symptoms or has concerns about relatives with breast cancer, take a first and second-degree family history to assess risk.
- Generally do not actively seek to identify people with a family history of breast cancer.
- In some circumstances it may be clinically relevant to take a family history e.g. for women >35 years using an oral contraceptive pill or for women being considered for long-term hormone replacement therapy (HRT).
- Always take a second-degree family history before explaining risks and options. This should include paternal as well as maternal relatives.
- Ask people to discuss their family history with relatives to gather the most accurate information.
- Ensure that tools such as family history questionnaires and computer packages that can aid accurate collection of family history information are available.
- For referral decisions, attempt to gather accurate information on:
  - age of diagnosis of any cancer in relatives,
  - site of tumours,
  - multiple cancers (including bilateral disease),
  - Jewish ancestry (women with Jewish ancestry are around 5 to 10 times more likely to carry BRCA1 or BRCA2 mutations than women in non-Jewish populations).

Secondary and tertiary care - family history taking
See NICE Pathway: secondary care, tertiary care.

Information for the public is available

Management in primary care
- People without a personal history of breast cancer with only one first or second-degree relative diagnosed with breast cancer at >40 years of age can be managed in primary care, if none of the factors listed in Box 1 are present in the family history.
- Give standard written information to people who do not meet the criteria for referral. See Box 2.
- Refer directly to a specialist genetics service when a high-risk predisposing gene mutation has been identified (for example, BRCA1, BRCA2 or TP53).

Box 1. Family history
- Bilateral breast cancer
- Male breast cancer
- Ovarian cancer
- Jewish ancestry
- Sarcoma in a relative <45 years old
- Glioma or childhood adrenal cortical carcinomas
- Complicated patterns of multiple cancers at a young age
- Paternal history of breast cancer (two or more relatives on the father's side of the family).

Referral to secondary care
- Offer referral to secondary care to people without a personal history of breast cancer with:
  - one first-degree female relative diagnosed with breast cancer <40 years, OR
  - one first-degree male relative diagnosed with breast cancer at any age, OR
  - one first-degree relative with bilateral breast cancer where the first primary was diagnosed <50 years, OR
  - two first-degree relatives, or one first-degree and one second-degree relative, diagnosed with breast cancer at any age, OR
  - one first or second-degree relative diagnosed with breast cancer at any age and one first-degree or second-degree relative diagnosed with ovarian cancer at any age (one of these should be a first-degree relative), OR
  - three first or second-degree relatives diagnosed with breast cancer at any age.
- Seek advice from the designated secondary care contact if any factors listed in Box 1 are present in the family history in addition to breast cancers, in relatives not fulfilling the above criteria for referral to secondary care.

Box 2. Standard written information for all people
- Risk information about population level and family history levels of risk including a definition of family history.
- Advice that if family history alters, their risk may alter.
- Breast awareness information.
- Lifestyle advice regarding breast cancer risk, including information about HRT, oral contraceptives, diet, alcohol intake and benefits of breastfeeding.
- Contact details of support groups.
- Details of any appropriate trials or studies.
- That a family member/ friend may come with them to appointments.
Management in secondary care – see NICE Pathway

Referral to a specialist genetic clinic - see NICE Pathway

Genetic testing
- All eligible people should have access to information on genetic tests aimed at mutation finding.
- Pre-test counselling (preferably two sessions) should be undertaken.

Surveillance for early detection of breast cancer
- For recommendations on MRI and mammographic surveillance – see NICE Pathway
- Women at increased risk of breast cancer should be ‘breast aware’ in line with Department of Health advice for all women.

General advice on risk reduction strategies
- Provide people with standardised written information about risk, including age as a risk factor.
- Discuss modifiable risk factors on an individual basis in the relevant care setting.
- Provide information on the effects of hormonal and reproductive factors on breast cancer risk.

HRT
- Inform women with a family history of breast cancer who are considering taking, or already taking, HRT of the increase in breast cancer risk with type and duration of HRT.
- Advice should vary according to the individual clinical circumstances (e.g. age, severity of menopausal symptoms, or osteoporosis).
- Restrict HRT use in a woman at familial risk to the shortest duration and lowest dose as possible. Prescribe oestrogen-only HRT where possible.
- Inform a woman having an early (natural or artificial) menopause of the risks and benefits of HRT. Use in women <50 years if at moderate or high risk of breast cancer.
- Alternatives to HRT should be considered for specific symptoms such as osteoporosis.
- Consider the type of HRT if it is to be used in conjunction with risk-reducing gynaecological surgery.

Hormonal contraceptives
- Provide women up to age 35 years with a family history of breast cancer with general health advice on the use of the oral contraceptive pill.
- Inform women >35 years with a family history of breast cancer about the increased risk of breast cancer associated with taking the oral contraceptive pill, given that their absolute risk increases with age.
- For women with BRCA1 mutations discuss the conflicting effects of a potential increased risk of breast cancer under 40 years of age and the lifetime protection against ovarian cancer risk from taking the oral contraceptive pill.
- Do NOT prescribe the oral contraceptive pill purely for:
  - prevention of cancer, although in some situations reduction in ovarian cancer risk may outweigh any increase in risk of breast cancer,
  - the reduction in ovarian cancer risk to a woman with a BRCA1 mutation who is considering a risk-reducing oophorectomy before the age of 40 years.

Breastfeeding
- Advise women to breastfeed if possible as this is likely to reduce their risk of breast cancer.

Alcohol consumption
- Inform women with a family history of breast cancer that alcohol may increase their risk of breast cancer slightly. Consider this in conjunction with any potential benefit of moderate alcohol intake on other conditions (such as heart disease) and adverse effects associated with excessive alcohol intake.

Smoking
- Advise women not to smoke.

Weight and physical activity
- Advise women on the probable increased postmenopausal risk of breast cancer from being overweight.
- Advise women about the potential benefits of physical exercise on breast cancer risk.

Chemoprevention
- Healthcare professionals within a specialist genetic clinic should discuss and give written information on the absolute risks and benefits of all options for chemoprevention to women at high or moderate risk of breast cancer. Include information on side effects of drugs, extent of risk reduction, and the risks and benefits of alternative approaches, such as risk-reducing surgery and surveillance.

Premenopausal women
- Offer tamoxifen*U for 5 years to women at high risk of breast cancer #.
- Consider prescribing tamoxifenU for 5 years to women at moderate risk of developing breast cancer#.
- Do NOT offer tamoxifen or raloxifene to women who were at high risk of breast cancer but have had a bilateral mastectomy.

Postmenopausal women
- Offer tamoxifen*U for 5 years to women without a uterus at high risk of breast cancer #.
- Offer either tamoxifen or raloxifene* for 5 years to women with a uterus and at high risk of breast cancer #.
- Consider prescribing tamoxifenU for 5 years to women without a uterus and at moderate risk of developing breast cancer#.
- Consider prescribing either tamoxifenU or raloxifeneU for 5 years to women with a uterus and at moderate risk of developing breast cancer#.
- Do NOT offer tamoxifen or raloxifene to women who were at high risk of breast cancer but have had a bilateral mastectomy.

Stopping treatment
- Do NOT continue treatment with tamoxifen or raloxifene beyond 5 years.
- Inform women that they must stop tamoxifen at least:
  - 2 months before trying to conceive,
  - 6 weeks before elective surgery.

Risk reducing surgery
- Person with personal history of breast cancer - see NICE Pathway
- Person with no personal history of breast cancer - see NICE Pathway

*See summary of Product Characteristics
U unlicensed indication. Obtain and document informed consent.
# Unless they have a past history or may be at increased risk of thromboembolic disease or they have a past history of endometrial cancer.