Family History of Breast Cancer

This advice is based on the information provided in the referral letter, and based on current guidelines and recommendations which can be subject to change in the future.

A family history of breast cancer is not a current eligibility criteria for the Complex Menopause Clinics nationally. However, the following information may be helpful in counselling your patient. A family history of breast cancer may increase the risk of developing breast cancer in the future due a genetic predisposition. However, most breast cancers that occur are due to lifestyle factors or epigenetics.

It is a common cancer whereby 1/8 of women who live to their 80s can expect to be diagnosed with breast cancer. In the general population, most women will not be diagnosed with cancer as a result of their exposure to HRT.In regards the general population, there is a small additional duration-dependent risk of breast cancer with HRT use. This is estimated to be 3-7 additional cases per 1000 women after 5 years of use (depending on the type of HRT used), increasing to 12 additional cases after 10 years of use.

Reference Marsden J; British Menopause Society. British Menopause Society consensus statement: The risks and benefits of HRT before and after a breast cancer diagnosis. Post Reprod Health. 2019 Mar;25(1):33-37. doi: 10.1177/2053369119825716. Epub 2019 Feb 16. PMID: 30773990.

Absolute excess risk of breast cancer diagnosis over 5 years per 1000 women starting HRT at age 50

	Duration of HRT use	HR or RR (95% CI)	Absolute Excess Risk (95% CI)	Women diagnosed	Women not diagnosed
No HRT[21]				13	987
Oestrogen alone					
Use up to 5 years					
WHI study 2020[4]	4.6 yrs (median)	0.76 (0.58-0.98)	-3 (-5, 0)	10	990
NICE 2015	Up to 5 years	1.16 (0.95-1.42)	+2 (-1, +5)	15	985
CGHFBC 2019[b]	< 5 years	1.16 (1.10-1.24)	+2 (+1, +3)	15	985
Use up to 10 years					
WHI study	No data	—	—	—	—
NICE 2015	5-10 years	1.23 (0.94-1.61)	+3 (-1, +8)	16	984
CGHFBC 2019	5-9 years	1.22 (1.17-1.28)	+3 (+2, +4)	16	984
Combined HRT					
Use up to 5 years					
WHI study 2020[4]	3.2 years (median)	1.26 (1.02-1.56)	+3 (0, +7)	16	984
NICE 2015	Up to 5 years	1.52 (1.25-1.85)	+7 (+3, +11)	20	980
CGHFBC 2019[a]	< 5 years	1.56 (1.49-1.64)	+7 (+6, +8)	20	980
Use up to 10 years					
WHI study	No data	—	—	—	—
NICE 2015[b]	5-10 years	1.94 (1.41-2.66)	+12 (+5, +22)	25	975
CGHFBC 2019	5-9 years	1.97 (1.90-2.04)	+13 (+12, +14)	26	974

a Risk estimate for less than 5 years category has been calculated by pooling the numbers for < 1year and 1 to 4 years duration of HRT exposure, using inverse variance weighting
b Evidence on observational estimate demonstrated very serious imprecision in the estimate of effect.

There is little difference in risk incurred by the use of HRT compared with other lifestyle factors known to increase breast risk such as being overweight or obese, smoking, or drinking excess alcohol.

For those considered at higher risk of developing breast cancer due to a family history or the presence of other additional risk factors, limited studies suggest that HRT does not confer significant additional risk, or increase risk exponentially, but more robust studies are required to evaluate this in more detail.

Counselling should include the fact that women with a family history of breast cancer are at a higher than population risk of developing breast cancer in the future by virtue of their family history. HRT can cause a small duration-dependent increased risk of breast cancer. The additional use of HRT in the context of a higher than baseline population risk may be additive (rather than exponential) but the majority of the risk will be derived via genetics and other factors.

All the benefits and risks of HRT should be considered when coming to a shared decision. Benefits being that HRT is considered the most effective treatment option for troublesome menopausal symptoms, reduction in cardiovascular risk, reduction in the risk of developing osteoporosis, with risks including a small duration-dependent increased risk of breast cancer and a very small increased risk of ovarian cancer which observational studies depict to be in the range of 1 additional case per 1000 women after 5 years.

The BMS recommends avoiding HRT as a 1st line option in **high-risk** cases with a **confirmed** genetic abnormality – and we are happy to see these patients within the Service for additional counselling. Those deemed at low to moderate risk of developing breast cancer (but higher than population risk) may use HRT once they have been counselled and are aware of the small increased risk incurred by HRT and that this may potentially be additive to their underlying baseline risk. This potential effect is thought to be more pronounced in leaner women than women who are overweight.

In patients who are eligible to be seen within a Breast Family History Assessment Clinic based on the NICE Guidelines eligibility Criteria, this may help to stratify their underlying risk into low, moderate, and high, which may further aid decision making.

NICE GUIDELINES FOR REFERRAL TO A BREAST FAMILY HISTORY SERVICE Checklist for referrals		
1.	A breast cancer gene has been identified in a family (e.g BRCA1, BRCA2, PALB2, ATM, CHEK2 etc.)	
2.	One 1st degree relative aged under 40 at diagnosis with breast cancer	
3.	Two relatives affected by breast cancer on the same side of the family (Two 1st degree relatives **or** One 1st degree and one 2nd degree relatives)	
4.	One relative with breast cancer and one relative with ovarian cancer on the same side of the family	
5.	One 1st degree relative with bilateral breast cancer	
6.	Three 1st **or** 2nd degree relatives on the same side of the family diagnosed with breast cancer	
7.	A male relative with breast cancer	
8.	Ashkenazi Jewish Ancestry with family history of breast cancer	
9.	Sarcoma in relative under 45yrs with family history of breast cancer	
10.	Complicated patterns of multiple cancers diagnosed at young age	
11.	Glioma or childhood adrenal cortical carcinomas	

In conclusion, a family history of breast cancer in itself should not be considered a contraindication to HRT use once the patient has been counselled as above. If a combined HRT regimen is being used, then a progestogen with possible lower breast risk than older synthetic progestogens should be considered, such as micronized progesterone or dydrogesterone. the ongoing use of HRT should be discussed on an annual basis and the patient informed of the duration-dependent breast cancer risk.

Studies have not demonstrated an increased risk of breast cancer with vaginal estrogen therapy and it can be used without restriction in someone with a family history of breast cancer.

Behavioural changes which can reduce breast cancer risk should also be discussed such as the benefits of a Mediterranean style diet, regular exercise, reducing alcohol intake, stopping smoking, and weight loss if overweight.

Further useful information can be obtained in the ICGP Quick Reference Guide on Management of Menopause and the Tools for Clinicians Section of the BMS website. I hope this is of assistance in the management of your patient

References:

1. Marsden J; British Menopause Society. British Menopause Society consensus statement: The risks and benefits of HRT before and after a breast cancer diagnosis. Post Reprod Health. 2019 Mar;25(1):33-37. doi: 10.1177/2053369119825716. Epub 2019 Feb 16. PMID: 30773990.erences:. Reviewed March 24
2. Hamoda H, Panay N, Pedder H, Arya R, Savvas M. The British Menopause Society & Women's Health Concern 2020 recommendations on hormone replacement therapy in menopausal women. Post Reprod Health. 2020 Dec;26(4):181-209. doi: 10.1177/2053369120957514. Epub 2020 Oct 12. PMID: 33045914. Reviewed March 21