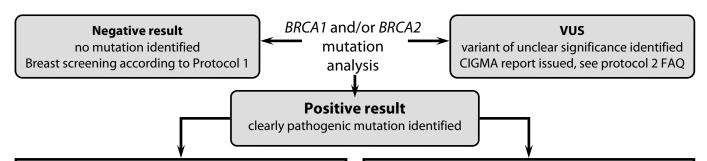


Protocol 3 BRCA mutation carrier guidelines





BRCA1 risks*

Unaffected carriers:

Breast Cancer

Lifetime risk (to 80 yrs): 60%-90%

Average remaining lifetime and 5 year risks - see table below

Ovarian cancer

Lifetime risk: 40%-60%

Majority of lifetime risk conferred after age 40

Male breast cancer

Lifetime risk ~0.1-1%

Prostate cancer

Lifetime risk similar to population risk ~8%

Affected carriers:

Women with unilateral breast cancer

Lifetime risk contralateral breast cancer ~50%

Overall 5 year risk ~10%

BRCA2 risks*

Unaffected carriers:

Breast Cancer

Lifetime risk (to 80 yrs): 45%-85%

Average remaining lifetime and 5 year risks - see table below

Ovarian cancer

Lifetime risk: 10%-30%

Majority of lifetime risk conferred after age 50

Male breast cancer

Lifetime risk ~5-10%

Prostate cancer

Lifetime risk ~25%

Affected carriers:

Women with unilateral breast cancer

Lifetime risk contralateral breast cancer ~50%

Overall 5 year risk ~5-10%

| BRCA1-Breast cancer risks* | | | | | | |
|----------------------------|---|--------------------------|--|--|--|--|
| Current age (yrs) | Approximate remaining lifetime risk to 80 yrs | Approximate 5 yr risk | | | | |
| 7 | • | , | | | | |
| 20-25 | 70% | 5% | | | | |
| 26-30 | 70% | 5% | | | | |
| 31-35 | 65% | 5% | | | | |
| 36-40 | 65% | 10% | | | | |
| 41-45 | 60% | 10% | | | | |
| 46-50 | 55% | 15% | | | | |
| 51-55 | 50% | 15% | | | | |
| 56-60 | 40% | 10% | | | | |
| 61-65 | 30% | 10% | | | | |
| 66-70 | 25% | 10% | | | | |

| Dreast cancer risks | | | | | | |
|---------------------|-------------------------|-------------|--|--|--|--|
| Current age | Approximate remaining | Approximate | | | | |
| (yrs) | lifetime risk to 80 yrs | 5 yr risk | | | | |
| 20-25 | 70% | ~1% | | | | |
| 26-30 | 70% | 2% | | | | |
| 31-35 | 65% | 5% | | | | |
| 36-40 | 65% | 5% | | | | |
| 41-45 | 60% | 10% | | | | |
| 46-50 | 55% | 10% | | | | |
| 51-55 | 50% | 10% | | | | |
| 56-60 | 50% | 10% | | | | |
| 61-65 | 45% | 15% | | | | |
| 66-70 | 35% | 15% | | | | |

RRCA2-Breast cancer risks

Carrier management

Screening*

Breast

Advise on breast awareness

Annual mammography 40-70 yrs - review age 70

Annual MRI 30-50 years

No breast screening for male carriers

Ovary

Ovarian screening is not recommended

Other cancers

No screening is recommended for other cancers Carriers may be eligible for screening in research studies

Chemoprevention*

- It is not appropriate to offer chemoprevention to BRCA1 carriers.
- Discuss benefits and sides effects with *BRCA2* carriers. Can be offered if no contra-indications.

Risk-reducing surgery*

Breas

Discuss bilateral risk-reducing mastectomy

- breast cancer risk reduction 90-95%
- refer to surgeon to discuss surgical options

Ovary

Offer risk-reducing bilateral salpingo-oophorectomy, once childbearing is complete.

Discuss the following:

- Ovarian cancer risk reduction ~95%
- Breast cancer risk reduction ~ up to 50%
- Side effect: premature menopause
- HRT should be offered until age 50 in women who have not had ER positive breast cancer