BRCA1 and BRCA2 genetic test for patients with ovarian cancer

Introduction
This leaflet will explain what BRCA1 and BRCA2 genetic testing involves and answers some of the most commonly asked questions.

What are BRCA1 and BRCA2 genes?
BRCA1 and BRCA2 are genes that help to protect us from developing cancer. An alteration in those genes affects how they function and this can increase the chance of developing breast, ovarian or prostate cancer. In most people cancer can occur by chance. It is rare for breast or ovarian cancer to be caused by a high risk gene. Breast cancer occurs in 1 out of 8 women in the United Kingdom. Ovarian cancer occurs in 1 in 50 women. In ovarian (about 15% of patients) and breast (about 3% of patients) cancer occurs because of a mutation (changes) in the BRCA1 or BRCA2 gene.

Why have I been offered a BRCA1 and BRCA2 genetic test?
You have been offered this test because of your cancer diagnosis. BRCA1 and BRCA2 mutations occur more frequently in women who have both breast and ovarian cancer. It is important to identify if a cancer is due to a BRCA1 or BRCA2 mutation as it will provide your doctors with information that can help treat your cancer and to reduce your risk of future cancer. It can also provide information for relatives about their risks of cancer.

What will happen if no mutation in BRCA1 or BRCA2 is found?
If a mutation in the BRCA1 or BRCA2 genes is not found then you are unlikely to be at high risk of developing another, new cancer in the future. Occasionally mutations in other genes can be involved in causing breast or ovarian cancer.
If a new gene test becomes available in the future the genetics team may be able to do the test using the sample you have already provided. If a future test is taken then the result will be sent to you and the cancer team.

**What will happen if a BRCA1 or BRCA2 mutation is found?**

If a mutation is found a referral will be made for you to attend the Genetics Department at Gloucestershire Royal Hospital to discuss what the test results mean, your future risk of cancer and screening. The Genetics Team will look at your family history and provide information for family members should they wish to consider testing.

**What will happen if the test result is unclear?**

Occasionally in less than 1 person in 100 a gene change known as a ‘variant’ is found. Further assessments will be needed before it is linked to your cancer.

If a variant is found the genetics team will arrange an appointment to explain the result and to discuss with you any further tests.

**Do I have to take the test?**

No, having this test is optional. Your decision will not affect the standard of care you receive from the hospital or doctor.

If you would like more information about the test please contact a specialist member of the genetics team. Contact details are at the end of this leaflet.

**If you decide to have the test**

An appointment will be arranged for you to see one of the Gynaecological Clinical Nurse Specialists who will record your family history and answer any questions you may have. You will also be asked to sign a consent form before a blood sample is taken for the test.
Results
The genetics team will send you and your cancer team the results of the test by post. The results may take up to 8 to 12 weeks. Your cancer team will use the information in planning your treatment.

Will my information be confidential?
All data collected about you will be held under the provisions of the 1998 Data Protection Act and stored in secure files.

Contact information
MacMillan Gynaecological Cancer
Clinical Nurse Specialist
Tel: 0300 422 4047
Monday to Friday, 8:30am to 4:30pm

Genetics Department
Tel: 0300 422 5517
Monday to Friday, 8:30am to 4:30pm
Email: Gloucesterclinicalgenetics@uhbristol.nhs.uk

Further information
Cancer Research UK

Macmillan
Tel: 0808 808 0000

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