The ROYAL MARSDEN
NHS Foundation Trust

Patient information

Genetic testing for hereditary breast cancer (R208)

In most people, cancer occurs by chance. However, a small number of people who develop breast cancer have inherited a harmful variant (change) in a breast cancer susceptibility gene. Individuals with a harmful variant have an increased risk of developing breast cancer.

Breast cancer seven gene panel test

The test includes seven genes associated with hereditary breast cancer: BRCA1, BRCA2, PALB2, CHEK2, ATM, RAD51C and RAD51D. Individuals with a harmful variant in one of these genes have an increased risk of developing breast cancer compared to the average person. A harmful variant may also increase the risk of other types of cancer, for example ovarian cancer. The risk of breast cancer and of other cancers differs with each gene.

Why am I being offered this test?

You are being offered this test because of your breast cancer diagnosis and because you meet the current national criteria for genetic testing.

What are the benefits?

The test may give us information about why you developed breast cancer and about your risks of developing new cancers in the future. The information may also help your breast cancer team advise you on the best drugs and surgery to treat your current cancer. If we do find a harmful variant, this is also important information for your family.

What if no harmful variants are found?

This is the most common result and means it is unlikely that your breast cancer arose due to an inherited harmful variant. It also means that you are not at a greatly risk of developing a new breast cancer in the future and your family members are unlikely to be at greatly increased risk of developing breast cancer. If you do have a family history of cancer in addition to your own diagnosis, your treating team can refer you to the genetics team to see if any other tests are indicated.

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What will happen if a harmful variant is found?

Your cancer team will use the information in planning your cancer treatment. The genetics team will send you an appointment to discuss the results and answer your questions. They will discuss what the test result means for your future risk of cancer, your options for cancer screening and measures to reduce these risks. They will also evaluate your family history and can provide information for the appropriate family members, so they can access genetic services either at The Royal Marsden or locally.

What will happen if a variant of uncertain significance is found?

Occasionally a variant of uncertain significance (VUS) is found. This is when a variant is identified but we do not know if it is harmless or increases your cancer risk. Most VUSs are likely to be harmless but the genetics team will send you an appointment to discuss the result and answer your questions.

Do I have to have the test?

No, having this test is optional. Your decision will not affect the standard of care you receive from the hospital or doctor, which will be based on the available information.

What will happen next if I say yes?

If you decide to have the test, you will be asked to sign a record of discussion form. A blood sample will be taken for the test.

How will I receive the results of the test?

The genetics team will send you and your cancer team the results of the test by post. The results will take around 8 weeks to be reported

Good to know

- You are welcome to contact the genetics team on 020 8661 3375 if you have further questions or can ask your treating team to refer you for an appointment.

- The result of your genetic test may affect any new life insurance or critical illness polices that you take out. For more information, please refer to the Association of British Insurers (www.abi.org.uk) or to our Insurance information leaflet in the Patient Information Library on The Royal Marsden website (www.royalmarsden.nhs.uk)