New Generation Technology

Advanced next-generation sequencing technology, also known as NGS, is used to fully analyse 83 genes associated with inherited cancer syndromes.

The Scientific Team

Genekor's scientific team consists of certified laboratory clinical geneticists who have over 20 years of experience in molecular testing for hereditary cancer, have published a great number of papers in international journals and have performed over 10,000 tests for hereditary cancer.

Genetic Counselling

The rapid development of genetics provides the possibilities of early diagnosis and prevention of hereditary diseases to treat them more effectively. However, this information must be used for the benefit of the whole family with the help of genetic counselling.

With counseling, the clinical geneticist:

- 1. Distinguishes whether a condition or disease in an individual or family has a genetic basis.
- **2.** Calculates the likelihood of the genetic disorder occurring in the individual and informs of all offered alternatives for diagnosing the genetic disease.
- **3.** If a genetic disease has occurred in one family member, estimates the probability that the genetic disorder will occur in another family member.
- **4.** If a genetic disorder is detected, explains the genetic result to the examinee and suggests and discusses available management approaches.

Genetic counseling is provided free of charge to all examinees at Genekor.

«The greatest value of knowledge...
...is its application in practice.»

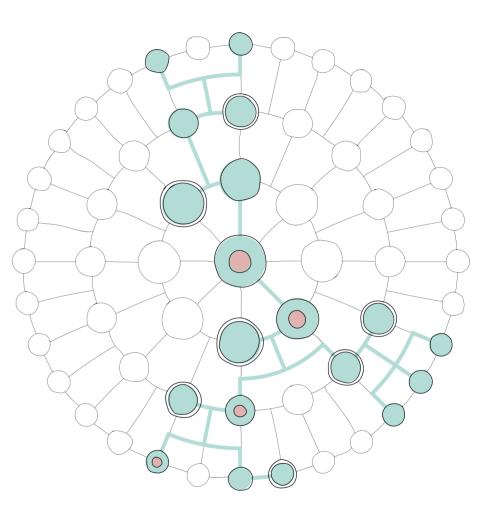
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"Your genes speak we translate"



Genetic Testing for Hereditary Cancer



In 90% of cases, cancer is sporadic.

Hereditary cancer occurs at a rate of 5-10%, with the most common types being breast, ovarian, prostate, pancreatic and colorectal cancer. Access to information in this time and age is very important and sometimes lifesaving for patients and their family members.

Some people are born with a gene mutation inherited from their mother or father. This mutated gene puts them in a higher risk group for cancer compared to other people.

When cancer occurs due to an inherited gene mutation, it is referred to as hereditary cancer.

HerediGENE analysis

The HerediGENE® multigene test analyzes 83 genes, which, guidelines, are involved in the genetic predisposition to cancer.

In case of a positive result (pathogenic or possibly pathogenic mutation), there are specific international guidelines and recommendations for the management of the carrier. In some cases, there is specific surgical and therapeutic management of the carrier. (Consult your treating physician).

In case of a positive result, with the guidance of the treating physician and
in collaboration with a geneticist, it is advisable to test first-degree relatives
and, in some cases, second-degree relatives. This way, family members who
are at risk of developing cancer can be identified and can benefit from proper
medical management under the guidance of a geneticist in accordance with
the international guidelines.

• In the case of a negative result (a family member who does not carry the pathogenic mutation found in the carrier); the information can relieve the stress of developing hereditary cancer. In this case, the family member with the negative result has the same risk as the general population for developing cancer and will follow precautionary guidelines that apply to the general population (e.g. mammography, colonoscopy).

To perform the test, we need blood or oral swab (saliva) as a sample. Results Time: 20 working days.

«It's not just about you.

It's a family matter..»

Who should be tested?

The most recent international guidelines (ASCO, ESMO, NCCN and American Society of Breast Surgeons) recommend the use of multi-gene panels instead of single genes (e.g. BRCA1/2). With the use of appropriate panels high- or intermediate-risk genes and various other inherited cancer syndromes to obtain the best possible information on increased risk of breast, prostate, colorectal, pancreatic, ovarian, etc.

International screening criteria for hereditary cancer

Breast cancer:

The American Society of Breast Surgeons recommends screening for all women diagnosed with breast cancer regardless of age or family history. The criteria based on the NCCN Guidelines are as follows:

1) Patients with a diagnosis age of lest than 50 years.

- **2)** Therapeutic indications. PARP inhibitors.
- a) Metastatic HER2 negative breast cancer.
- **b)** Adjuvant therapy after surgery for women with triple negative or high-risk hormone-sensitive breast cancer.

- **3)** Patients with triple negative breast cancer.
- **4)** Two or more breast cancers in the same patient.
- **5)** Lobular breast cancer with a personal or family history of stomach cancer.
- **6)** Male breast cancer.
- **7)** Family history of breast, ovarian, pancreatic or prostate cancer.

Ovarian cancer:

All patients who developed ovarian cancer regardless of age and family history.

Pancreatic cancer:

All patients who developed pancreatic cancer regardless of age and family history.

Prostate cancer:

All patients with metastatic or highrisk early-stage prostate cancer regardless of age and family history. There are also criteria for patients with lower risk of early-stage prostate cancer depending on family history.

Colon cancer:

All patients of age >50 years regardless of family history with cancer diagnosis or with colorectal cancer with microsatellite instability (MSI). There are also criteria based on family history for patients older than 50 years of age.

For other hereditary cancers:

- Kidney cancer
- Thyroid cancer
- Stomach cancer
- Melanoma
- Cancer of the central nervous system
- Endocrine tumors

We recommend ClinKor test (clinical exome)

