UTSouthwestern
Simmons Cancer Center

Genetic Testing Information for Nephrologists

Impact of Genetic Testing on Patient Care

Genetic testing for hereditary cancers can be a useful tool for patients affected with cancer, as well as their family members. It can also be helpful for unaffected patients with a significant family history of cancer.

For patients considering treatment options, genetic testing can help with making informed decisions regarding their healthcare. Additionally, patients with a hereditary cancer predisposition syndrome may be at an increased risk for other cancers. Genetic testing may help clarify these risks and allow patients to consider increased cancer surveillance or even take preventative measures, such as prophylactic surgery.
Family members of patients with a cancer predisposition syndrome may also be at risk and should pursue genetic testing themselves to help clarify their cancer risks.

Current Genetic Testing Options for Hereditary Cancer

Hereditary cancer genetic testing now includes panels that assess multiple genes at once. There are several options for panels depending on patient preference and personal/family history. Various commercial testing laboratories offer smaller, tailored panels for indications like renal cancer, while other options include larger panels that test for a wide range of hereditary cancer indications.

Insurance and Financial Options

Most insurance companies cover the cost of genetic testing for patients who meet certain criteria, and financial assistance may be available for patients without insurance. Competitive self-pay options are also available. Criteria for genetic testing varies depending on the type of cancer, but generally includes patients with a personal/family history of young diagnoses (often <50 years old), multiple primary cancers in one person, and multiple family members with the same or related types of cancers.

When to Refer for Genetic Counseling

Typical referral indications are outlined below. Please note that this list is not all-inclusive and may change with time. The American College of Medical Genetics and Genomics has practice guidelines for referring to cancer genetics, which can be found at www.ACMG.net. Your local genetics office can also be a resource for answering referral questions.

Referral indications for genetic counseling you may come across in your clinic include:

- A personal or family history of an adrenocortical carcinoma (ACC), *regardless of age or family history*
- A personal or family history of a pheochromocytoma and/or paraganglioma, *regardless of age or family history*
- A personal history of clear cell renal cell carcinoma and any of the following:
  - Diagnosed <50 years
  - Bilateral or multifocal tumors
  - At least 1 close relative with clear cell renal cell carcinoma
- A personal history of renal cell carcinoma with papillary, type 1 histology
- A personal history of renal cell carcinoma with papillary, type 2, collecting duct, or tubulopapillary histology
- A personal history of renal cell carcinoma with chromophobe, oncocytoma, or oncocytic hybrid histology

How can I learn more?

For information about genetic testing and genetic counseling, visit the UT Southwestern Cancer Genetics for Health Professionals site.

For additional resources on coordinating genetics counseling and testing for patients, or providing genetics services, visit the Genetic Screening and Navigation Toolkit.

To find a genetic counselor near you, visit the National Society of Genetic Counselors Find a Genetic Counselor Tool.

UTSouthwestern
Simmons Cancer Center

Genetic Testing Information for Nephrologists

Reference

Hampel H. et al. A practice guideline from the American College of Medical Genetics and Genomics and the National Society of Genetic Counselors: referral indications for cancer predisposition assessment. *Genet Med*. 2014. 17(1):70-87.