Transcript Details
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Navigating Genetic Testing in Kidney Transplants: Clinical and Ethical Issues

Announcer:
You're listening to *Clinician's Roundtable* on ReachMD. On this episode, we'll hear from Dr. Elisa Gordon, who's a Professor in the Department of Surgery at Vanderbilt University Medical Center in Nashville, Tennessee. She also serves as the Director of Surgical Outcomes Research in the Section of Surgical Sciences and the Director of Transplant Outcomes Research at the Vanderbilt Transplant Center. She'll be discussing the ethical and logistical challenges of genetic testing in kidney transplantation, which she spoke about at the American Society of Nephrology's 2025 Kidney Week conference. Here's Dr. Gordon now.

Dr. Gordon:
Genetic testing is increasingly being used in living donations as well as kidney transplant evaluation. Transplant programs are increasingly using genetic testing to evaluate as well as to manage living donors. They're also using genetic testing for kidney transplant candidates, kidney transplant recipients, and patients with chronic kidney disease, and that's really to aid in post-transplant care and provide tailored management. Especially in the context of living donors, APOL1 genetic testing is used to screen for higher risks of post-donation kidney failure.

There are a lot of ethical issues with APOL1 genetic testing in relation to donation, and one of the ethical issues has to do with informed consent. Without having enough data on the long-term impact of having the two APOL1 risk variants, it may be challenging for a potential donor to make an informed treatment decision about whether or not to undergo donation in light of the potential for elevated risks with the two risk variants.

There are tremendous disparities in terms of access to kidney transplantation as well as disparities in donation rate by racial ethnic groups. That's a really big ethical issue unto its own right, but within the APOL1 genetic testing context, it takes on a new escalated concern. As you may know, there have been empirical studies—plenty of them—documenting that, for example, Black kidney transplant candidates receive disproportionately fewer kidney transplants than do White kidney transplant candidates. But in this context, there's the concern that donors of African ancestry, who may identify as Black or White from a racial identification perspective, may be more likely to be medically ruled out for various clinical reasons, including having the two risk variants.

So there are a whole bunch of barriers. I'll just start off with a logistical barrier, and that has to do with the electronic medical record. The electronic health record has traditionally not really included discrete fields for entering genetic test results, and that's important for enabling clear clinical decision support and access to the findings. Instead, you've got to upload the PDF of the test results—that means having a staff member at the transplant program receiving the lab results from the lab and then taking the time to upload them into the medical record as a PDF—and that's really not efficient.

Another really big issue is that there are very few genetic counselors nationally who specialize in kidney diseases in the United States, so that means a lot of responsibility for doing counseling can fall on the transplant team, whether it's nurses, nephrologists, or others. And those programs that are performing APOL1 testing aren't necessarily engaging genetic counselors in this process, so from a justice point of view, not all living donors are receiving the optimal care that they should be receiving. And another barrier relates to transplant nephrologists in the sense that there's been research, my own included, documenting that transplant nephrologists and nephrologists in the community are not adequately equipped to counsel patients about the genetic test results. There's a lot of variation in terms of knowledge of APOL1 or counseling skills, and there's also limited time. That's even another structural factor that weighs in on all of this.

I think those are some key issues that are on my mind—some of which may be on other people's minds—so I'd like to see some positive change.

Announcer:
That was Dr. Elisa Gordon sharing key highlights from her presentation at the American Society of Nephrology's 2025 Kidney Week conference, which focused on the ethical and logistical challenges of genetic testing in kidney transplantation. To access this and other episodes in our series, visit *Clinician's Roundtable* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!