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## What to Consider When Treating Transgender Patients with Epilepsy

Dr. Andrew Wilner:

Welcome to *NeuroFrontiers* on ReachMD. I'm Dr. Andrew Wilner and on this program, we're going to hear from Dr. Emily Johnson, an Assistant Professor of Neurology at Johns Hopkins School of Medicine in Baltimore. Dr. Johnson is here to share some key considerations for treating transgender patients with epilepsy. Let's hear from her now.

Dr. Johnson:

I first became interested in the special considerations of transgender patients with epilepsy when I had a young, transgender woman as a new patient. I did not know how to broach the topic with her, but I very much wanted to ask her about her transition. We were talking about requesting her medical records from a previous institution, and she mentioned that the records might be under a different name. I then awkwardly asked her about the transition and what kind of medications she was on for that. And after this encounter, I knew that I really had to learn more about transgender patients with epilepsy.

I have long been interested in women with epilepsy, and the special relationships between sex hormones, seizures, and our epilepsy medications. Thinking about these relationships, I wanted to learn more about how hormonal treatment is used for transgender patients and about those interactions. So I started searching for anything written about transgender patients with epilepsy and about hormonal treatments for transgender people.

Surprisingly, there had been nothing written about transgender people with epilepsy. However, from other literature, we can make some inferences. Numerous studies estimate that approximately 0.3 to 0.9 percent of the population identifies as transgender. If that holds true for people with epilepsy, then probably about 150,000 to 450,000 of the 50 million people with epilepsy in the world identifies as transgender. Gender-affirming treatment for transgender women typically involves some kind of androgen blocker, along with exogenous estrogen. If transgender adolescents are treated, they may also receive a GnRH analog, which helps block endogenous hormone loads.

Gender-affirming treatment for transgender men is similar, with an antiandrogen to suppress estrogen, and then exogenous testosterone instead of estrogen. We know from numerous studies of oral contraception that our enzyme-inducing anti-seizure drugs affect estrogen levels substantially. This must be taken into account when we treat trans women. If someone is on estrogen, we should try to use non-inducers when possible. Similarly, inducers also reduce testosterone levels. We also note that exogenous estrogen may have pro-convulsive effects. I have come across a few cases of women with first seizures or breakthrough seizures when starting estrogen. We also know that estrogen increases the metabolism of lamotrigine, so this must be adjusted if a trans woman is on lamotrigine and starting estrogen. Also, we know that transgender people have a higher rate of depression and suicidal ideations than does the general population. Putting this together with our knowledge that people with epilepsy are at high risk for depression, we must be very careful with medications that could have negative mood side effects, such as levetiracetam.

In talking with patients, we can do things to make sure that we are welcoming and accepting, such as asking about preferred pronouns and providing our own and using gender-neutral language when we ask about romantic or sexual partners. It's also important to screen for depression and to connect people to support groups and other resources when needed. We should always call patients by their preferred names and pronouns. Research shows that using a transgender teen's preferred name and pronoun can reduce their risk of suicidal ideation. We should, of course, treat every patient with dignity and how they wish to be treated, but it is especially important for our transgender patients who may have had negative experiences in the health care field before. We know that cultural norms are continuing to evolve, and we really need to be sensitive to our patients' preferences and to keep learning.

Dr. Andrew Wilner:

That was Dr. Emily Johnson talking about how we can better care for our transgender patients with epilepsy. For ReachMD, I'm Dr. Andrew Wilner. To access this and other episodes in our series, visit [reachmd.com/neurofrontiers](https://reachmd.com/neurofrontiers), where you can Be Part of the Knowledge. Thanks for listening.