

This podcast can be accessed at www.pedscases.com, Apple Podcasting, Spotify, or your favourite podcasting app.

Transgender Health: Transitioning with a Focus on Hormone Replacement Therapy

Developed by Linden, Jenn Bhatla, Dr. Simone Lebeuf and Dr. Jorge Pinzon for PedsCases.com.
July 11, 2020

Introduction:

Hi everyone, my name is Jenn Bhatla and I'm a medical student at the University of Alberta. This podcast was developed with Linden, Dr. Simone Lebeuf, an adolescent medicine pediatrician at the Stollery Children's Hospital, and Dr. Jorge Pinzon, an adolescent medicine pediatrician at the Alberta Children's Hospital. Linden has the lived experience of being transgender and transitioning recently in a rural setting. With the knowledge gained from his own experience, he also mentors trans teens as they work through the transition process. I'm really excited to have him with us here today!

This podcast builds on two previous podcasts, "Transgender Health - Tips for Inclusive Care" by Linden and I, and Ashlee Yang's podcast entitled "Gender Dysphoria". These podcasts are a great place to start if this topic is new to you. In this podcast, we are very fortunate to have Linden with us to share his experience transitioning. Our learning objectives are:

1. Understand the role of the physician in prescribing and monitoring hormone therapy
2. Identify changes that can be expected with testosterone
3. Identify different administration methods and dosing options for testosterone.
4. Identify side effects of testosterone

First, let's talk about why we would start hormone therapy.

Linden, could you tell us a little more about hormone therapy?

Linden: Hormones are a way to initiate physical changes that many trans people feel they need in order to live authentically and be seen as who they are. They basically start a second puberty and all the associated changes you'd expect going through it. They permanently change the body to develop the secondary sex characteristics many trans people feel they should have experienced in the first place. Having those changes really helps with being read as the gender you are, especially when it comes to things like body shape and voice.

Developed by Linden, Jenn Bhatla, Dr. Simone Lebeuf and Dr. Jorge Pinzon for PedsCases.com.
July 11, 2020

Jenn: Thanks Linden. It's clear that starting hormones can be an important step for many people but it sounds like something that requires a lot of thought and planning.

Linden, do you have some experience or suggestions on what might be beneficial for us to consider before beginning hormone therapy?

Linden: I think the big thing is to make sure the patient is really ready to start hormones- it's a life-long commitment and causes permanent changes that you need to be ready for. You can't pick and choose what changes you get with hormones so make sure their expectations are realistic. Some changes, like body fat distribution and the cessation of menses, will revert back to how they were pre-hormones but others, like voice changes, hair growth and breast/genital growth, will stay forever. Transitioning is a super stressful and mentally taxing time so it might help to suggest patients work with a counsellor for their own mental wellbeing.

Jenn: Thanks Linden. How did you make the decision to start the process?

Linden: I had been thinking about it and researching for about 10 years before I made the decision to transition. I knew I needed to transition at some point but couldn't find the right time. My transition was actually kick-started by a life-coaching session I decided to take while working through some health challenges. We talked a lot about being your authentic self and at that point I decided it was the time to start living the life I really wanted. I started looking into the process more seriously to see what resources were available since I knew it was going to be a challenge to access the care I needed in a small town. Through a lot of self-advocacy and research I managed to find a nurse practitioner locally who was willing to take me on. I set up an appointment with him for the following week and was given my first dose of testosterone two weeks later. Transitioning has been the best decision I've made in my life.

Jenn: Thanks Linden. Making the decision to decide to transition seems like a big step. I think it will really help others to hear your story. Before we continue, let's talk a little about options for children of different ages. Adolescents just beginning puberty may be able to use a GnRH analogue for puberty suppression, most commonly leuporelin (Lupron). This would prevent unwanted changes from occurring prior to starting hormone therapy. Puberty suppression is reversible and generally beneficial for a transgender child in early puberty. GnRH agonists can also be used for adolescents who have already completed puberty to ensure menstrual cessation during testosterone initiation and enable a lower initial testosterone starting dose if mood swings are a concern.

In an older adolescent, testosterone can be considered, with lots of planning and preparation involved. Adolescents need to be developmentally ready and have the capacity to consent. There are also medical concerns that can worsen with testosterone that need to be addressed such as diabetes, dyslipidemia, acne and liver changes. They also need to be at a point of mental health stability and need to be ready from a sexual health standpoint. Testosterone and GnRH agonists are not forms of contraception and testosterone is teratogenic. Therefore, contraception needs to be considered if they are having sex in a way in which they could get pregnant. They also need to consider if they would like to

preserve fertility and pursue egg banking. Starting hormones is a process that has lots of thought and considerations. Linden, how long have you taken hormones and what was your experience?

Linden: I started taking testosterone in August of 2016 so I'm about three and a half years into the process. The first year was definitely the most intense in terms of trying to find the right method and dose for me as well as getting used to the changes. Now that we have it figured out, it feels more like a routine part of life.

Jenn: As Linden mentioned, female to male hormone therapy is primarily testosterone, most commonly in the form of injections. Progestins may also be used for contraceptives or assisting with preventing menses. Progestins can be administered as an IM injection or as an IUD. Linden, what was starting injections and figuring the dose out like?

Linden: For me it was a big process of trial and error. I started off with injections and reacted to both commonly available types, testosterone enanthate and cypionate. I ended up having local reactions to both, despite trialling different locations and injection types. Then we switched to patches and that didn't work for me either. I wasn't absorbing the testosterone well and just felt terrible. So we went back to injections and switched from subcutaneous to intramuscular which I wasn't excited about, but that was what had to happen. It ended up being better as it was deeper in the skin and I didn't have the same reactions. There are also gels but I wasn't keen on applying it daily so decided to stay with injections. I wasn't excited about injections because self injecting is kind of scary and not fun but I knew it had to happen to get the effect I wanted. I just did it and now it's part of life. Injections are the most common type due to cost. If you don't have coverage it can be expensive to use patches or gels and injections are fairly cheap.

Jenn: You mentioned giving yourself injections, that sounds like something I would be afraid of doing! What was it like to give yourself an injection?

Linden: Honestly, that was what held me back for so many years, I was a major needle-phobe and just couldn't handle needles at all. I would pass out during lab work and need to be physically restrained because I was so afraid. When I knew I wanted to transition around age 15 or so that was what held me back for so long. I knew I would have to be subject to injections and lab work for life and I wasn't ready for it. Then I ended up going through some health challenges and got poked and prodded so frequently I lost that sensitivity and now it's just a part of life. If you really want something you find a way to make it happen! I did my first supervised self-injection subcutaneously at my 3 week mark with my nurse practitioner coaching me and hyping me up to do it. It wasn't really as bad or as hard as I expected. The hardest part was just mentally stabbing yourself; it's super weird to look down and shove a needle in your stomach or leg. I managed subcutaneous for a few months and it was fine but then I had reactions again and switched to intramuscular. That was something I was trying to avoid because it's more painful, deeper, and a bigger needle. There is an extra level of mental barrier so that was a challenge. I ended up finding an auto-injector, a device that clips onto the needle. It's spring loaded so you pull it back and push a button and it fires perfectly each time. That's what I've been

using ever since. It takes away some of the stress and anxiety. I use that twice a week and it's perfect for me. It was a hurdle but it's manageable!

Jenn: Thank you for sharing that with us Linden, that's something that's probably important for us to keep in mind when working with patients. Let's talk a little about the changes we would expect with testosterone. Testosterone causes changes usually within three to twelve months depending on the change although this can be quite variable. These changes include a deeper voice, growth of body and facial hair, growth of external genitals, fat redistribution, skin changes, menstrual cessation, decreased fertility, mood changes and changes to sex drive. Some of these changes are permanent, specifically a deeper voice, hair growth, scalp hair loss and external genital growth.

Now that we know what we might expect with testosterone, let's hear from Linden to see what this was actually like. Linden, what changes did you notice after starting testosterone?

Linden: I actually surprised myself, I started noticing effects the day after. It was a cool experience to wake up the next morning and already feel different. I had a huge increase in energy the next morning and also noticed I smelled differently, my sweat and urine smelled different from how it had the rest of my life which I didn't expect at all. The first real physical change I noticed was a few weeks in when my neck and shoulders started widening out and people started to comment on that. It was interesting to have people mention that my neck was wider. Shortly after that I started to notice my fat distribution changing, going from more female places to more male places which was cool to see. My body shape changed drastically in the first few months, it was quite an experience. Then at about two months people were noticing that my face shape was changing and becoming more angular. I was getting comments on that too, it was kind of awkward but also cool to see the progress. At that point I was feeling like a fourteen year old boy but I was twenty five so... it was a weird situation but was part of the process. Around two and a half months my voice started to really change and had that crackling and squeaking going on, typical teenage boy puberty zone. I went through that process and it took almost two years for my voice to settle out. It was a long drawn out process for me. The first big drop was around six months and I started to be read as male on the phone consistently. Then my adams apple became more visible and my voice continued to drop over the next year or so and stabilized around two years.

I noticed increased hair growth on my legs and it slowly started to come in everywhere else around six months and I started to get facial growth around eight months, just around my chin and neck. I still can't grow much three and a half years into it. Maybe next year I'll get some more growth, it's kind of an unknown. There has been a big increase in hair growth between years two and three compared to years one and two. I think the most significant change I noticed was muscle mass, I gained about twenty pounds in the first six months. It's been a lot easier to build muscle mass ever since.

One of the big goals early on is suppressing menstruation but I ended up having a total hysterectomy before I reached that point. Having to deal with periods as a guy is challenging mentally and a trigger for dysphoria. Once that was no longer an issue for me, I felt a lot better physically and mentally.

In addition to the physical changes I had a big increase in energy and felt more lively and alert. I also felt more of a sense of balance and calmness and more stable moods compared to how I used to be. It was easier to just wake up and feel rested. I was always hungry and still am. It's been a lot of changes in not a long amount of time. But definitely doable and a cool experience to go through.

Jenn: Wow, that is exciting and it sounds like it's had a big positive impact on your life! What change were you most looking forward to before starting on testosterone?

Linden: I was really excited for my voice to drop to a point where I felt like it suited me. I always had this way I thought I sounded in my head but it never matched how it sounded in real life. It was cool to have it finally match. I was also really looking forward to my body shape growing out and getting more muscle mass since I was pretty skinny.

Jenn: Once you started testosterone, what ended up being your favourite change?

Linden: My favorite physical change has been how my body shape transformed. I wasn't sure how it was going to happen and what the end result would be but it's been really cool to see it morph and evolve. Testosterone allowed me to put on roughly thirty pounds of muscle mass and that along with fat redistribution and working out has made me look completely different and it just kind of matches how I've always seen myself in my head now and it's cool to have that congruency now.

Jenn: Thank you for sharing this Linden. Were there any changes that surprised you?

Linden: There have been a few changes that sort of caught me off guard. The first was the extreme increase in energy and stamina and that has been one of the changes I've really enjoyed. I just feel a lot more powerful, like I can keep going and going like the energizer bunny and there is really no end to it. It's awesome! I also didn't expect to feel the sense of mental balance and zen that I have now, I thought I would get more angry and irritable being on testosterone but it's been the total opposite for me. I feel like I'm more cool headed and just calm and collected all the time. Something else was genital growth- I kind of expected that to happen but didn't know how that would happen or how it would look so that kind of caught me off guard. I did my own research and had an idea but definitely didn't expect what happened. The increase in sex drive was unexpected and a challenge to deal with. For the most part I was just expecting male puberty and to see how that played out.

Jenn: Thanks Linden, I know your energy definitely increased because I had to work a lot harder on runs with you! You've mentioned lots of changes with the hormones, how have these overall affected you?

Linden: I think the whole compounding effect of transitioning has just been confidence, I'm so much more outgoing and willing to put myself out there. I used to hide in the background and not be seen because it was super awkward when people were trying to figure out what I was and how to interact with me. But now that I'm just seen as a guy all the time it's so much easier to interact with people and assimilate into groups. I live my life in stealth so a

lot of people I'm around don't know I'm trans and it's nice to be accepted as another guy in the room and be treated the same way.

Jenn: It sounds like you have had a lot of positive changes, both expected and some surprises. Do you have any regrets about starting on testosterone?

Linden: My only regret is that I wasn't able to start sooner. I thought about coming out at three different points in my life but the timing just wasn't right for it and I don't think I would have had the same positive experience as I've had now if I did it then. I think I needed to be in a more mature mindset to have the views I have now to get that positive outcome. Had I been growing up today rather than in the 90s I would have access to blockers and likely would have socially transitioned by the time I was five or so, just because of the signs and symptoms I showed as a child. That would have been such a game changer - to prevent the unwanted changes from puberty would have made things so much easier. It would have been less stressful and less anxiety provoking and a more smooth method of growing up. Then being able to take testosterone and go through puberty with my peers at the right time of my life would have been pretty cool too instead of going through it later on. But my experience has definitely shaped me and I wouldn't be the person I am today if the process to get here was easy.

Jenn: Yes, thanks Linden. Let's chat a little more about what's involved in taking testosterone. There are some side effects we might want to monitor for. Possible side effects include acne, hair loss, elevated transaminases, menstrual bleeding that is not suppressed, and internal genital dryness.

Once testosterone has been started, it's important to determine the correct dose for that patient by titration it up the dose. Testosterone levels should be checked every 4-6 weeks at a point midway through the injection cycle. Every 6-12 months, a CBC, ALT, fasting glucose, lipids and TSH should also be performed. At each follow-up visit, blood pressure, weight, CV exam and labs should be reviewed in addition to any side effects, mental health concerns and lifestyle and social factors. Linden, what was all of this like for you?

Linden: Trying to find the right dose was a challenge. Typically you start on a fairly low dose and titrate up based on your lab work. I started off on 25mg per week and titrated up slowly based on monthly lab work, aiming for the normal male range, which is about 8-26 or so. Anywhere in there is considered ok with the main goal to suppress menses. I ended up having a total hysterectomy when I was 3 months into it so didn't get to those male levels at that point. For some reason, my testosterone levels plummeted after the hysterectomy. Typically you can decrease your dose after a hysterectomy. After I had the hysterectomy we decided to base the dosing more on how I was feeling rather than whatever the numbers said because we weren't trying to suppress anything anymore so were aiming to maximize how good I felt. We tried to find that balance point where I was feeling my best and still within that male range. It took me about 16 months to try to find that number and it ended up being 62.5mg per week. After a few months on that dose I found I felt good for the first few days and then started to peter out and get really tired by the end. So I proposed to my provider that maybe I should try doing it twice a week which is atypical but I wanted to feel good all the time. We went with that and did some more lab

work and trial and error and now I'm on 50mg twice a week which I've been sticking with for the last year or so. I feel good all the time and that's what my goal was. We found that optimum sweet spot and stuck with it. So I'm really glad I had a provider that was willing to do something a bit more unusual and just try it out and see how it worked.

Jenn: Thanks Linden! You mentioned your healthcare provider earlier and they sound like a very supportive person in your transition. Can you tell us more about them?

Linden: I was super fortunate to be surrounded by providers who were fully on-board and keen to help me in whatever way they could. I ended up developing a really strong network of professionals locally that made the transition process as smooth as it could have been. Being able to find everything I needed locally without having to travel simplified things so much. My nurse practitioner is an amazing guy and he took on the challenge of prescribing testosterone and monitoring my levels- he single-handedly changed my life. I was actually his first trans patient ever and so a bit of a guinea pig. That relationship of having more of a team effort rather than doing whatever he said was nice too. I'd come in with suggestions and he would weigh them and say, "let's try this or let's try that" and as long as things were monitored that was fine. I was glad he was on board to try things and be on my side and support me fully through it. I also have a GP who handles all my non-trans stuff and she is in the loop and involved in the transition process. Having my locally gynaecologist do my hysterectomy here was awesome. I didn't have to travel for that, I could do it in the local hospital. He was super affirming and validating and made a pretty terrible experience as good as it could be, which I really appreciated. I also have a really good councillor who has been my mental rock for the last little while. I started seeing her before I transitioned and still see her every month to check in. It's a mentally taxing process to transition so having that support and place I could go to was super helpful for me.

Jenn: That's great, I'm glad you found someone so supportive and I hope we can learn from health care professionals like yours! What challenges did you face accessing care to support your transition?

Linden: Being rural I definitely had some more challenges than had I been in a city. Trying to find someone locally would take me on was a big issue for me. My GP wasn't willing to do it so he sent referrals out to different doctors and specialists in the province and they all got returned and no one would take me on for various reasons. So after becoming so excited to transition it began to look dismal that I would be able to take testosterone or transition. That was crushing. In the end he ended up sending a referral to Toronto which is across the country for me and not feasible. At that point I took it on myself to try to find someone. I did a bunch of research and called a few people and ended up finding my provider who took me on as his first patient and was game to try it. It was amazing. At that point nurse practitioners had just got the license to prescribe controlled substances, like two weeks before I saw him, so I was his first testosterone patient and he was super excited to take me on and go for it. After I connected with him the process was swift and smooth.

Jenn: I'm glad you found him and didn't have to go all the way to Toronto! What advice do you have to new physicians or new nurse practitioners about offering hormone replacement therapy as part of their practice?

Linden: I think the big thing is to not be afraid. It's not that hard or scary and it makes a huge difference for people in the trans community. It's not that different than managing a patient with diabetes or a thyroid condition where it's injectable stuff and you have to monitor the level. It's fairly basic and doesn't require specialist knowledge to manage. There are specialists out there you can contact if you need help and there are resources out there to help you learn as you go. It helps a patient if they can build a rapport with their doctor rather than being sent to various providers. If they can just see one main doctor and have that connection, trust, and understanding, it really helps for comfort. Trans patients often become subject matter experts and they can often tell you what they need from you if you aren't sure. They are generally informed and aware of the process that they need access to. I would also say take the initiative to learn what resources are available in your area so you can refer patients in the right direction if there are things like councillors or support groups or any other professionals that are trans friendly. It would be helpful if you have a list for them.

Jenn: Thanks Linden, it sounds like an area in which physicians and nurse practitioners and our healthcare teams can make a big difference if it's a topic we can go out and learn about and gain some experience in. Thank you Linden for sharing all your experiences with us, we really appreciate it and I think this will help us to better understand the importance of hormones and have a better understanding of what our patients might be going through. For anyone listening, if you would like to read further on this topic, we have included a list of books and resources on our website, www.pedscases.com that can be shared with children and parents. Thank you all for listening and thank you Linden for joining today and working on this podcast together. Thanks for listening everyone and stay tuned for more great podcasts!

References:

Amato, Paula. Center of excellence for transgender health. (2018) Fertility options for transgender persons. Available at <http://transhealth.ucsf.edu/trans?page=guidelines-fertility>

Benaway, Gwen. (2018) When it comes to health care, transphobia persists. The Globe and Mail. Available at: <https://www.theglobeandmail.com/opinion/article-when-it-comes-to-health-care-transphobia-persists/>

Center of Excellence for Transgender Health. (2016). Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People. University of California, San Francisco.

LGBT Health Program. (2019) Guidelines for Gender-Affirming Primary Care with Trans and Non-Binary Patients. Toronto: Sherbourne Health Center.

Matieschyn, Zak. Breaking Down Healthcare Barriers for Transgender British Columbians (2016) Association of Registered Nurses of British Columbia. Available at: <https://www.arnc.ca/blog/transgender/>

Ryan, Caitlin. (2009) Supportive Families, Healthy Children, Helping Families with Lesbian, Gay, Bisexual & Transgender Children. Family Acceptance Project. San Francisco State University.

The World Professional Association for Transgender Health. Standards of Care for the Health of Transsexual, Transgender and Gender Nonconforming People (7th version).

TransPulse. (2013) Reported Emergency Department Avoidance, Use, and Experiences of Transgender Persons in Ontario, Canada.

Trans Care BC. (2017) Gender-affirming Care for Trans, Two-Spirit, and Gender Diverse Patients in BC: A Primary Care Toolkit.