

Abbas Hyderi, MD, MPH;
Joseph Angel, MD;
Morgan Madison, MD;
L. Amanda Perry, MD;
Leila Hagshenas, MD
University of Illinois
at Chicago

ahyder2@uic.edu

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Transgender patients: Providing sensitive care

What to say? What to prescribe? When to refer?
The authors offer advice on how best to communicate
with and treat this unique patient population.

PRACTICE RECOMMENDATIONS

- › Refer transgender patients to a mental health provider with experience in treating this patient population for diagnosis of gender dysphoria. **(B)**
- › Confirm patients' eligibility for hormone therapy and obtain informed consent before initiating it. **(B)**
- › Treat minor adverse effects of hormone therapy whenever possible, as discontinuing the hormones may be detrimental to the well-being of patients in the process of transitioning. **(B)**
- › Continue recommended screenings based on the sex the patient was assigned at birth, unless the organ or tissue in question has been surgically removed. **(A)**

Strength of recommendation (SOR)

- (A)** Good-quality patient-oriented evidence
- (B)** Inconsistent or limited-quality patient-oriented evidence
- (C)** Consensus, usual practice, opinion, disease-oriented evidence, case series

Civil rights for the lesbian, gay, bisexual, and transgender population have advanced markedly in the past decade, and the medical community has gradually begun to address more of their health concerns. More recently, media attention to transgender individuals—although focused primarily on the “appropriate” use of restrooms—has encouraged many more to openly seek care.^{1,2}

It is estimated that anywhere from 0.3% to 5% of the US population identifies as transgender.¹⁻³ While awareness of this population has slowly increased, there is a paucity of research on the hormone treatment that is often essential to patients' well-being. Studies of surgical options for transgender patients have been minimal, as well.

Family physicians are uniquely positioned to coordinate medical services and ensure continuity of care for transgender patients as they strive to become their authentic selves. Our goal in writing this article is to equip you with the tools to provide this patient population with sensitive, high-quality care (TABLE 1).⁴⁻⁷ Our focus is on the diagnosis of gender dysphoria (GD) and its medical and hormonal management—the realm of primary care providers. We briefly discuss surgical management of GD, as well.

Understanding and diagnosing gender dysphoria

Two classification systems are used for diagnoses related to GD: the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Ed.* (DSM-5)⁸ and the *International Classification of Diseases, 10th Rev.* (ICD-10).⁹

ICD-10 criteria use the term “gender identity disorder;” DSM-5 refers to “gender dysphoria” instead. It is important to emphasize that these classification systems represent an attempt to categorize a group of signs and symptoms that lead to distress for the patient, and are not meant to suggest that being



The transitioning process is a complex and individualized journey that can include inward or outward change, or both.

transgender is pathological. In fact, in DSM-5—released in 2013—the American Psychiatric Association revised the terminology to emphasize that such individuals are not “disordered” by the nature of their identity, but rather by the distress that being transgender causes.⁸

For a diagnosis of GD in children, DSM-5 criteria include characteristics perceived to be incongruent between the child’s sex at birth and the self-identified gender based on preferred activities or dislike of his or her own sexual anatomy. The child must meet 6 or more of the following for at least 6 months:

- a repeatedly stated desire to be, or insistence that he or she is, of the other gender
- in boys, a preference for cross-dressing or simulating female attire; in girls, insistence on wearing only stereotypical masculine clothing
- strong and persistent preferences for cross-gender roles in make-believe play or fantasy
- a strong rejection of toys/games typically associated with the child’s sex

- intense desire to participate in stereotypical games and pastimes of the other gender
- strong preference for playmates of the other gender
- a strong dislike of one’s sexual anatomy
- a strong desire for the primary (eg, penis or vagina) or secondary (eg, menstruation) sex characteristics of the other gender.⁸

Adolescents and adults must meet 2 or more of the following for at least 6 months:

- a noticeable incongruence between the gender that the patient sees themselves as and their sex characteristics
- an intense need to do away with (or prevent) his or her primary or secondary sex features
- an intense desire to have the primary and/or secondary sex features of the other gender
- a deep desire to transform into another gender
- a profound need for society to treat them as someone of the other gender

TABLE 1

Communicating with transgender patients: What the terms mean⁴⁻⁷

Term	What it means
Cross-dresser or transvestite	One who likes to dress as the opposite gender but does not identify as that gender
FTM/transman	Assigned female sex at birth but identifies as male
Gender identity	The gender with which one identifies (unlike sexual identity, which is based on the gender one is attracted to)
Gender variant	One who does not conform to the expected characteristics of the sex assigned at birth
MTF/transwoman	Assigned male sex at birth but identifies as female
Natal sex	The sex (male, female, or intersex) assigned at birth based on chromosomes and/or appearance of genitalia
Non-binary, gender-neutral, genderqueer, gender-free	People who do not conform to society's gender categories and generally view gender as a spectrum
Queer	The "Q" in LGBTQ is used to consciously step outside of social norms of gender and sexual diversity. "Queer" includes sexual minorities who are marginalized for their sexual orientation and gender expression, highlights the idea that identities are fluid and experience-based, and transforms language historically associated with hate to an empowering word—particularly among LGBTQ youth.
Transgender	One whose gender identity and/or expression differs from the sex assigned at birth. Avoid using the terms "transgendered," "transvestite," "transsexual," "he-she," and "cross-dresser" when referring to transgender individuals.
Transition	A complex, individualized process that can include inward or outward change—or both—in one's gender identity. Avoid referring to "sex change," "preop," "postop," or "sex-reassignment surgery" in reference to individuals who are transitioning, as these terms can be offensive and are not generalizable to all transgender individuals.

FTM, female to male; MTF, male to female.

- a powerful assurance of having the characteristic feelings and responses of the other gender.⁸

For children as well as adolescents and adults, the condition should cause the patient significant distress or significantly affect him or her socially, at work or school, and in other important areas of life.⁸

Is the patient a candidate for hormone therapy?

Two primary sources—*Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7*, issued by the World Professional Association for Transgender Health (WPATH)¹⁰ and *Endocrine Treatment of Transsexual Persons*¹¹ by the Endocrine Society—offer clinical practice guidance based on evidence and expert opinion.

WPATH recommends that a mental health professional (MHP) experienced in transgender care diagnose GD to ensure that it is not mistaken for a psychiatric condition manifesting as altered gender identity. However, if no one with such experience is available or accessible in the region, it is reasonable for a primary care physician to make the diagnosis and consider initiating hormone therapy without a mental health referral,¹² as the expected benefits outweigh the risks of nontreatment.¹³

Whether or not a MHP confirms a diagnosis of GD, it is still up to the treating physician to confirm the patient's eligibility and readiness for hormone therapy: He or she should meet DSM-5 or ICD-10 criteria for GD, have no psychiatric comorbidity (eg, schizophrenia, body dysmorphic disorder, or uncontrolled bipolar disorder) likely to inter-

How to help transgender teens

Gender exploration is a normal part of childhood. Changes that occur during puberty cause many adolescents to question their ideas of gender and sexuality, but those with persistent gender nonconformity or extreme body dysphoria should receive medical and mental health care as early as possible.

A mental health professional (MHP) can help families create a safe, unconditionally accepting, and supportive environment in which their child can develop into his or her authentic self. A specialist in adolescent gender dysphoria (GD) should be consulted before initiating hormone therapy. Family physicians are well positioned to provide follow-up and ongoing care.

Initiating hormone suppression for adolescents with GD early in puberty can greatly reduce the emotional trauma, as well as the need for surgery related to unwanted secondary sex characteristics. Hormone suppression also gives adolescents more time to explore their gender nonconformity and developmental needs. Treatment with a gonadotropin-releasing hormone agonist such as leuprolide or histrelin can be initiated for adolescents in Tanner Stage 2, assessed by hormone levels, as well as breast, testicle, and pubic hair development (childgrowthfoundation.org/CMS/FILES/Puberty_and_the_Tanner_Stages.pdf), to suppress ongoing puberty.^{11,14}

The effects of puberty blockers are reversible. If preferred, however, medication management can allow teens to progress directly from hormone suppression to the puberty of their self-identified gender once initiation of adult transgender hormone therapy is started—typically around the age of 16.¹¹

Some adolescents may seek medical care well after puberty has begun. It is possible to use hormone suppression therapy after a teen has started to develop unwanted secondary sex characteristics. However, such patients may get less benefit from puberty blockers and often derive more benefit from initiation of cross-gender hormones.

Safety—a broader perspective. Regardless of medical treatment or the age at which treatment is begun, parents and patients need to be reminded that gender transition is about more than hormones. It is crucial that either the MHP or primary care physician, or both, address safety issues and work with the transgender individual to create a comprehensive plan for his or her health, safety, and social well-being.

Psychosocial concerns for transgender youth are vast, often

encompassing rejection by peers and potentially, by family and authority figures; harassment; physical, emotional, and sexual abuse; inadequate housing; legal problems; lack of financial support; and educational difficulties.¹⁵ School is a particular source of concern. A survey by the Gay, Lesbian and Straight Education Network found, for instance, that nearly 9 in 10 transgender youth had been verbally harassed at school because of their gender expression. More than half also reported being physically harassed (eg, pushed or shoved).¹⁵

Bathroom use in schools is a major issue, as well, with transgender youth often prevented from using the restroom or locker room that coincides with their gender identity. In May, 11 states filed a lawsuit against the Obama administration for directing schools to allow such students to do so or risk the loss of federal funds.¹⁶

Tools and support. In 2006, the Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition published guidelines for the care of transgender adolescents, including a modification of the HEADSSS tool (used to assess teens' psychosocial well-being) specific to transgender youth.¹⁷ (See <http://www.amsa.org/wp-content/uploads/2015/04/CaringForTransgenderAdolescents.pdf>.) The tool can help you identify possible areas of concern and intervene, as needed.

If a patient reports feeling especially vulnerable at school, for example, encourage him or her to identify supportive friends, family members, teachers, or school counselors who can help create safe networks. Suggest that a teen who feels threatened travel in groups whenever possible. Stress to family members that their acceptance is key to nurturing positive feelings in youth with GD. And refer patients and parents to organizations that provide information and support.

Chief among them are Trans Youth Family Allies¹⁸ (www.imatyfa.org), which provides resources for parents, educators, and health care practitioners; the Human Rights Campaign, which has created a survival guide for gay and transgender youth who are forced to seek independent living¹⁹ (available at hrc-assets.s3-website-us-east-1.amazonaws.com/files/assets/resources/HRC-OnOurOwn-LGBTQYouth.pdf), and the Gay, Lesbian, Bisexual, and Transgender National Help Center, which hosts a GLBT national hotline (888-843-4564) and a weekly Trans Teen Online Talk Group.²⁰ For more information about the online talk group, go to glbthotline.org and click on "transteens."

fare with treatment, understand the expected outcomes and the social benefits and risks, and have indicated a willingness to take the hormones responsibly.

Historically, patients were required to have a documented Real-Life Experience (RLE), defined as having fully adopted the

new gender role in everyday life for at least 3 months.^{10,11} This model has fallen out of favor, however, as it is unsupported by evidence and may place transgender individuals at physical and emotional risk. Instead, readiness is confirmed by obtaining informed consent.¹²

CONTINUED

➤
Psychological conditions such as depression tend to improve when a transgender individual begins the transitioning process.

TABLE 2
Hormone dosing for transgender patients^{10,11,21}

Male to female	
Hormone	Initial dose/maximum dose*
Anti-androgen	
Spironolactone	100 mg/d; 200 mg/d
Finasteride (5-ARI)	1 mg/d; 5 mg/d
Estrogen	
Sublingual (estradiol)	1 mg/d; 6 mg/d
Transdermal (estradiol)	100 mcg/d; 400 mcg/d
IM (estradiol valerate)	2 mg weekly; 10 mg weekly
Female to male	
Testosterone	
IM (enanthate or cypionate)	100 mg q 2 wk; 200 mg q 2 wk
Transdermal gel (1%)	2.5 g/d; 10 g/d
Transdermal patch	2.5 mg/d; 7.5 mg/d

5-ARI, 5-alpha reductase inhibitor; IM, intramuscular.

*Hormone therapy should be titrated to achieve desired effects and blood levels.

Puberty may be suppressed with a gonadotropin-releasing hormone (GnRH) agonist in adolescents who have a GD diagnosis and are at Tanner stage 2 to 3 of puberty until age 16. At that point, hormone therapy consistent with their gender identification may be initiated.¹¹ (See “How to help transgender teens”^{11,14-20} on page 457.)

Beginning the transition

The transitioning process is a complex and individualized journey that can include inward or outward change, or both.

For patients interested in medical interventions, possible therapies include cross-sex hormone administration and gender-affirming surgery. Both are aimed at making the physical and the psychological more congruent. Hormone treatment (TABLE 2)^{10,11,21} is often essential to reduce the distress of individuals with GD and to help them feel comfortable in their own body. Psychological conditions, such as depression, tend to improve as the transitioning process gets underway.²²

Female-to-male transition

CASE 1 ➤

Jennie R, a 55-year-old postmenopausal pa-

tient, comes to your office for an annual exam. Although you’ve been her primary care physician for several years, she confides for the first time that she has never been comfortable as a woman. “I’ve always felt that my body didn’t belong to me,” the patient admits, and goes on to say that for the last several years she has been living as a man. Jennie R says she is ready to start hormone therapy to assist with the gender transition and asks about the process, the benefits and risks, and how quickly she can expect to achieve the desired results.

If Jennie R were your patient, how would you respond?

Masculinizing hormone treatment

As you would explain to a patient like Jennie R, the goal of hormone therapy is to suppress the effects of the sex assigned at birth and replace them with those of the desired gender. In the case of a female transitioning to a male (known as a transman), masculinizing hormones would promote growth of facial and body hair, cessation of menses, increased muscle mass, deepening of the voice, and clitoral enlargement.^{11,23,24}

Physical changes induced by masculinizing hormone therapy have an expected

onset of one to 6 months and achieve maximum effect in approximately 2 to 5 years.^{10,11} Although there have been no controlled clinical trials evaluating the safety or efficacy of any transitional hormone regimen, WPATH and the Center of Excellence for Transgender Health at the University of California, San Francisco, suggest initiating intramuscular or transdermal testosterone at increasing doses until normal physiologic male testosterone levels between 350 and 700 ng/dL are achieved, or until cessation of menses.^{13,25-28} The dose at which either, or both, occur should be continued as long-term maintenance therapy. Medroxyprogesterone can be added, if necessary for menstrual cessation, and a GnRH agonist or endometrial ablation can be used for refractory uterine bleeding.^{29,30}

Testosterone is not a contraceptive. It is important to emphasize to transmen like Jennie that they remain at risk of pregnancy if they are having sex with fertile males. Caution patients not to assume that the possibility of pregnancy ends when menses stop.

Treat minor adverse effects. Adverse effects of masculinizing hormones include vaginal atrophy, fat redistribution and weight gain, polycythemia, acne, scalp hair loss, sleep apnea, elevated liver enzymes, hyperlipidemia, cardiovascular disease, diabetes, and bone density loss. Increased risk of cancer of the female organs has not been proven.^{10,11} It is reasonable to treat minor adverse effects after reviewing the risks vs benefits of doing so, as discontinuing hormone therapy could be detrimental to the well-being of transitioning patients.¹¹

There are absolute contraindications to masculinizing hormone therapy, however, including pregnancy, unstable coronary artery disease, and untreated polycythemia with a hematocrit >55%.¹⁰

Monitoring is essential. Patients receiving masculinizing hormone therapy should be monitored every 3 months during the first year and once or twice a year thereafter, with a focused history (including mood symptoms), physical exam (including weight and blood pressure), and labs (including complete blood count, liver function, renal function, and lipids) at each visit.^{11,23} Some clinicians

also check estradiol levels until they fall below 50 pg/mL,^{23,27} while others take the cessation of uterine bleeding for >6 months as an indicator of estrogen suppression.

Preventive health measures continue. Routine screening should continue, based on the patient's assigned sex at birth. Thus, a transman who has not had a hysterectomy still needs Pap smears, mammograms if the patient has not had a double mastectomy, and bone mineral density (BMD) testing to screen for osteoporosis.^{31,32} Some experts recommend starting to test BMD at age 50 for patients receiving masculinizing hormones, given the unknown effect of testosterone on bone density.^{11,31,32}

CASE 1 ▶

The first question for a transgender patient is about his or her current gender identity, but Jennie R has already reported living as a man. So you start by asking "What name do you prefer to use?" and "Do you prefer to be referred to with male or female pronouns?"

The patient tells you that he sees himself as a man, he wants to be called Jeff, and he prefers male pronouns. You explain that you believe he has gender dysphoria and would benefit from hormone therapy, but it is important to confirm this diagnosis with a MHP. You explain that testosterone can be prescribed for masculinizing effects, and describe the expected effects—more facial and body hair, a deeper voice and greater muscle mass, among others—and review the likely time frame

You also discuss the risks of masculinizing hormones (hyperlipidemia, cardiovascular disease, diabetes, and loss of bone density) that will need to be monitored. Before he leaves, you give him the name of a MHP who is experienced in transgender care and tell him to make a follow-up appointment with you after he has seen her. At the conclusion of the visit, you make a note of the patient's name and gender identity in the chart and inform the staff of the changes.

Male-to-female transition

CASE 2 ▶

Before heading into your office to talk to a new patient named Carl S, you glance at his

➤ **Remind patients of the need for contraception, pointing out that a male transitioning to a female may still impregnate a female partner and a female transitioning to a male may still conceive.**

>
Males transitioning to females should undergo breast cancer screening beginning at 40 to 50 years of age if they remain on hormone therapy.

chart and see that he is a healthy 21-year-old who has come in for a routine physical. When you enter the room, you find Carl wearing a dress, heels, and make-up. After confirming that you have the right patient, you ask, "What is your current gender identity?" "Female," says Carl, who indicates that she now goes by Carol. The patient has no medical problems, surgical history, or significant family history, but reports that she has been taking spironolactone and estrogen for the past 3 years. Carol also says she has a new female partner and is having unprotected sexual activity.

Feminizing hormone treatment

The desired effects of feminizing hormones include voice change, decreased hair growth, breast growth, body fat redistribution, decreased muscle mass, skin softening, decreased oiliness of skin and hair, and a decrease in spontaneous erections, testicular volume, and sperm production.^{10,11} The onset of feminizing effects ranges from one month to one year and the expected maximum effect occurs anywhere between 3 months and 5 years.^{10,11} Regimens usually include anti-androgen agents and estrogen.^{13,26-28}

The medications that have been most studied with anti-androgenic effects include spironolactone and 5-alpha reductase inhibitors (5-ARIs) such as finasteride. Spironolactone inhibits testosterone secretion and inhibits androgen binding to androgen receptors; 5-ARIs block the conversion of testosterone to 5-alpha-dihydrotestosterone, the more active form.

Estrogen can be administered via oral, sublingual, transdermal, or intramuscular route, but parenteral formulations are preferred to avoid first-pass metabolism. The serum estradiol target is similar to the mean daily level of premenopausal women (<200 pg/mL) and the level of testosterone should be in the normal female range (<55 ng/dL).^{13,26-28}

The selection of medications should be individualized for each patient. Comorbidities must be considered, as well as the risk of adverse effects, which include venous thromboembolism, elevated liver enzymes, breast cancer, cardiovascular disease, dia-

betes, hyperprolactinemia, weight gain, gallstones, cerebrovascular disease, and severe migraine headaches.^{10,11} Estrogen therapy is not reported to induce hypertrophy or pre-malignant changes in the prostate.³³ As is the case for masculinizing hormones, feminizing hormone therapy should be continued indefinitely for long-term effects.

■ Frequent monitoring is recommended. Patients on feminizing hormones (transwomen) should be seen every 2 to 3 months in the first year and monitored once or twice a year thereafter. Serum testosterone and estradiol levels should initially be monitored every 3 months; serum electrolytes, specifically potassium, should be monitored every 2 to 3 months in the first year until stable.

CASE 2 ▶

You recommend that Carol be screened annually for sexually transmitted diseases, as you would for any 21-year-old patient. You point out, too, that while estrogen and androgen-suppressing therapy decrease sperm production, there is a possibility that the patient could impregnate a female partner and recommend that contraception be used if the couple is not trying to conceive.

You also discuss the risks and benefits of hormone therapy and reasonable expectations of continued treatment. You ask Carol to schedule a follow-up visit in 6 months, as her hormone regimen is stable. Finally, if the patient remains on hormone therapy, you mention that the only screening unique to men transitioning to women is for breast cancer, which should begin at 40 to 50 years of age (as it is for all women).

Gender-affirming surgical options

Surgical management of transgender patients is not within the scope of family medicine. But it is essential to know what procedures are available as you may have occasion to advocate for patients during the surgical referral process and possibly to provide postoperative care.

For transmen, surgical options include chest reconstruction, hysterectomy/oophorectomy, metoidioplasty (using the clitoris to surgically approximate a penis), phalloplasty, scrotoplasty, urethroplasty, and vagi-

nectomy.^{10,34} The surgeries available for transwomen are orchiectomy, vaginoplasty, penectomy, breast augmentation, thyroid chondroplasty and voice surgery, and facial feminization.^{10,34} Keep in mind that not all transgender individuals desire surgery as part of the transitioning process. **JFP**

CORRESPONDENCE

Abbas Hyderi, MD, MPH, 1919 West Taylor Street, M/C 663, Chicago, IL 60612; ahyder2@uic.edu.

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