Practice Guidelines

Caring for Transgender and Gender-Diverse People: Guidelines From WPATH

Key Points for Practice

- TGD people use terms to refer to themselves that can be personally and culturally important. Mirroring the patient's language helps physicians provide more effective care.
- TGD people have higher rates of cardiovascular disease, partly due to undertreatment of risk factors.
- Gender-affirming treatment improves mental health and functioning and reduces suicidality.
- Social transitioning is important for mental health and can occur before, concurrent with, or after medical transitioning depending on patient preference and age-specific treatment recommendations.

From the *AFP* Editors

Although less than 0.1% of people are identified as transgender and gender-diverse (TGD) in medical records, 0.5% of adults consider themselves transgender and up to 4.6% of adults assigned male at birth and 3.2% of adults assigned female at birth report gender incongruence or ambivalence. Up to 2.7% of children and adolescents consider themselves transgender. The World Professional Association for Transgender Health (WPATH) conducted systematic reviews to publish guidelines for care of TGD people.

TGD people often use names, pronouns, and terms for gender self-identity and body parts that vary based on personal preferences, cultural relevance, and shifting community standards. Mirroring this language and being aware of the stigma and discrimination they may experience can help physicians provide more affirmative and effective care.

Primary Care for TGD Patients

Most primary care needs for TGD patients are indistinguishable from other care for similarly aged individuals.

Coverage of guidelines from other organizations does not imply endorsement by *AFP* or the AAFP.

This series is coordinated by Michael J. Arnold, MD, assistant medical editor.

A collection of Practice Guidelines published in *AFP* is available at https://www.aafp.org/afp/practguide.

CME This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 539.

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TGD people have higher rates of cardiovascular disease, partly due to lower treatment of risk factors. Although TGD women have higher rates of myocardial infarction and stroke than cisgender women, their risks may not be higher than cisgender men. Standard cardiovascular risk-factor management is recommended. Smoking cessation is important and should be addressed, especially before referral for gender-affirming surgery.

TGD patients receiving estrogen therapy should receive the same breast cancer screening as cisgender women. TGD people with breasts from natal puberty that have not been surgically removed should also receive screening. Cervical cancer screening should be offered to all people who have a cervix. Oophorectomy and hysterectomy are not recommended solely to reduce cancer risk.

Although TGD adults appear to have lower bone mineral density, this finding is present before and during hormone treatment and is thought to be related to lower physical

G-TRUST GUIDELINE SCORECARD

Score	Criteria
Yes	Focus on patient-oriented outcomes
Yes	Clear and actionable recommendations
Yes	Relevant patient populations and conditions
Yes	Based on systematic review
No	Evidence graded by quality
Yes	Separate evidence review or analyst in guideline team
Yes	Chair and majority free of conflicts of interest
Yes	Development group includes most relevant specialties, patients, and payers
	Overall – useful

Note: See related editorial, Where Clinical Practice Guidelines Go Wrong, at https://www.aafp.org/afp/gtrust.html.

G-TRUST = guideline trustworthiness, relevance, and utility scoring tool.

activity. Physical activity should be encouraged, and individualized bone density screening and supplementation with calcium and vitamin D should be considered.

Mental Health Care

Although there is evidence of increased rates of depression and anxiety in TGD patients, psychiatric symptoms—including suicidality—decrease when gender-affirming care is provided. Gender dysphoria and social stigma contribute to these symptoms. TGD youth who have their identity supported show similar psychosocial and functional outcomes as their cisgender peers.

TGD people are more likely to have neurodiverse diagnoses, including autism and attention-deficit/hyperactivity disorder, than their cisgender peers.

Mental health symptoms that might interfere with the ability to consent to gender-affirming care or participate in ongoing or perioperative care should be addressed. Because mental health symptoms usually improve with gender-affirming care, withholding that care because of mental health concerns may be counterproductive.

Reproductive Health

Infertility can be a consequence of gender-affirming hormone and surgical treatments. Fertility preservation through sperm, egg, or embryo banking can be offered to interested patients. Many are willing to delay or interrupt hormone therapy to preserve fertility or conceive. Although hormone therapy decreases fertility, it is not sufficient to act as contraception because pregnancies have been reported.

Gonadotropin-releasing hormone (GnRH) agonist therapy in adolescents can inhibit spermatogenesis and ovulation. Spermatogenesis generally starts three months or longer after discontinuation. Oocyte maturation should also restart, although evidence is lacking.

Pregnancy care for TGD patients requires an individualized approach to minimize gender dysphoria. Body changes, desire for pregnancy care, and infant feeding should be discussed. Discussing chest feeding instead of breastfeeding can be helpful. Before a planned pregnancy, testosterone should be discontinued until after delivery and any chestfeeding. Breast growth and lactation can increase gender dysphoria.

Sexual Health

On average, TGD patients report lower sexual pleasure than cisgender people, some of which may be due to stigma, discrimination, and violence, including sexual violence. Hormone medications may affect mood, libido, erectile function, ejaculation, and genital tissue health. Gender-affirming surgery can affect erogenous sensation, sexual desire, and sexual arousal and pleasure. Although most TGD patients report improved sexual functioning with gender-affirming care, realistic expectations and counseling around risks are important.

TGD people who wish to have penetrative intercourse can benefit from erectile dysfunction medication and vaginal estrogen, depending on their anatomy.

TGD people have a higher risk of sexually transmitted infections, including HIV. For people with high risk, regular sexually transmitted infection screening is recommended. People at high risk may also benefit from HIV preexposure prophylaxis, which can safely be combined with gender-affirming hormone therapies.

Assessment and Treatment in TGD Adults

Gender-affirming treatments show positive mental and physical health impacts in patients with persistent gender incongruence who meet the diagnostic criteria for gender dysphoria Estimating the influence of gender-affirming care on existing mental health may require an experienced specialist.

For assessments pertaining to gender-affirming hormone or surgical treatments, the role of social transition should be discussed with the patient. Not all patients can or will want to socially transition. Some may want to do that before or during gender-affirming treatment, and others may want to transition after treatment is complete. Some patients may want to undergo facial and chest surgeries before social transition. A comprehensive multidisciplinary assessment involving experienced transgender health experts can be helpful before interventions for transitioning or detransitioning, with careful consideration of social-transitioning elements.

Setting expectations for the effects of hormone treatment can be important. Only 1 in 5 patients will obtain a result consistent with Tanner stage 4 or 5 in their affirmed gender with hormone therapy alone.

Continuing therapy within medical and detention facilities can be important because discontinuing these medications affects mental health and social functioning.

When TGD patients are transitioning, voice changes may be an important element to consider. Although minor changes in voice and communication can occur with hormone therapy, many patients will need referrals to voice and communication professionals.

Gender-Affirming Interventions

Gender-affirming surgeries have similar complication rates to similar procedures for non-TGD diagnoses. Gender-affirming surgery tends to increase quality of life and satisfaction with body appearance, while decreasing gender dysphoria. Rates of regret after gender-affirming surgery are less than 4%, and the decision to detransition is rare.

WPATH recommends patients have at least six months of hormone therapy before most surgical interventions, with the exception of chest surgery.

Children and Adolescents

In surveys, 7% to 9% of adolescents self-report concern about gender identity. The timing of declaring gender identity and its permanence are highly variable. Age of TGD self-identification does not correlate to TGD identity permanence. Importantly, children and adolescents who change TGD identities or who detransition over time do not regret having socially transitioned or medically transitioned using hormone-blocking medications (e.g., GnRH agonists). Children and adolescents whose decisions are supported have improved psychosocial and educational well-being. Supported adolescents have rates of mental health disorders similar to age-matched cisgender adolescents.

WPATH emphasizes recognizing that children and adolescents need to feel safe and nurtured in each setting they frequent. For physician assessments, environmental safety screening results in better understanding of well-being, strengths, opportunities, and risks. Because neurodivergence is more likely in TGD children and adolescents, neuropsychiatric and mental health assessments should be considered.

Family support of TGD youth is a primary predictor of well-being and mental health outcomes. Social transitioning involves informing families, friends, and social institutions about the transition, including changes in name, pronouns, and clothing. Children and families may choose to transition gradually, identifying the safer places in which to transition first. Social transitioning is important for mental health and educational goals. This transitioning can occur before, concurrent with, or after medical transitioning, depending on patient preference and age-specific treatment recommendations.

Transitioning techniques can include chest binding, chest padding, genital tucking, and genital packing. In masculine TGD patients, chest binding can increase comfort, reduce misgendering, and improve safety. Binders specifically designed for TGD patients have fewer adverse effects than duct tape, elastic wraps, and plastic wraps. For feminine TGD patients, genital tucking is positioning the penis and testes to reduce the outward genital bulge, often with an undergarment to hold the position. The major risk is decreased sperm concentration and mobility.

Conversion therapy, or reparative therapy, has been shown to worsen multiple outcomes, including mental health, suicidality, achieving educational goals, and health care avoidance. Although detransitioning is rare after binary social transition, supporting the patient's decision to detransition is essential.

Intersex children, including those with congenital adrenal hyperplasia and androgen insensitivity, need inclusive multidisciplinary care tailored to gender identity and the specific condition. Families need education about having an intersex child and the lifelong implications. In addition to mental health and psychosocial support, self-determination should be supported by puberty suppression, hormone treatment, and gender-affirming surgery, as determined by the patient and family. Treatment discussions should cover impacts on fertility and available preservation options, as well as alternative paths to parenthood.

Treatment in Adolescents

For TGD adolescents, hormone therapy involves initiating hormone suppression in eligible patients at Tanner stage 2, using GnRH agonists for puberty blocking or progestins if GnRH agonists are unavailable. Discussion with patients about the risks of taking GnRH agonists should include decreased bone density, which is reversible, and infertility, which increasing evidence shows is reversible but is still a risk because it is not completely known.

Physically developed adolescents can undergo hormone suppression without replacement using GnRH agonists. Gender-affirming treatment with sex hormones requires parental involvement in nonemancipated individuals. Monitoring hormone levels according to Tanner stage, especially in uterus-bearing patients, is important, and collaboration with transgender health experts is essential for comprehensive care.

When starting sex steroid therapy, reaching adult levels of hormones typically takes two years. At least 12 months of hormone therapy is recommended before considering gender-affirming interventions. Recommendations for initiating gender-affirming care in TGD adolescents include ensuring that the patient has reached Tanner stage 2, has documented marked and sustained identity under the TGD umbrella, and has received the following:

- Counseling about fertility preservation and potential and unknown reproductive concerns in the long term
- Counseling about the levels of reversibility of medical therapies
- Assessment for cognitive maturity to provide consent/assent for treatment
- Comprehensive assessment that includes mental health, medical health, and safety in school, home, and other environments
- At least 12 months of hormone therapy before gender-affirming interventions
- Parental/guardian involvement, unless it is determined to be harmful to the adolescent

Training in TGD Care

WPATH recommends multidisciplinary training across age groups for any health care centers that may encounter TGD patients, including outpatient, inpatient, and other residential institutions (e.g., long-term care, palliative care). WPATH also recommends TGD training for professionals

working in educational or detention systems. Ongoing education is important because standards continue to evolve.

Editor's Note: The WPATH guidelines are recognized as the standard for care for TGD people, and this first update in more than a decade is also the first based on a systematic review of the literature. I appreciate the author's work to distill the important points of this 177-page guideline, especially because they endeavored to remain sensitive to the diversity of outlook within our community of readers pertaining to this topic. Like most guidelines we summarize, these recommendations are developed from interpreting a limited evidence base. Although family physicians have different levels of comfort with providing gender-affirming care, primary care considerations are important to all. The primary care recommendations for TGD people in this guideline are more extensive than I have found in any other source.—Michael J. Arnold, MD, Contributing Editor

Guideline source: World Professional Association for Transgender Health

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GLOSSARY OF EVIDENCE-BASED MEDICINE AND STATISTICAL TERMS

Term	Definition
Sensitivity	Percentage of patients with disease who have a positive test for the disease in question
Specificity	Percentage of patients without disease who have a negative test for the disease in question
Predictive value (positive [PV+] and negative [PV–])	Percentage of patients with a positive or negative test for a disease who do or do not have the disease in question
Pretest probability	Probability of disease before a test is performed
Post-test probability	Probability of disease after a test is performed
Likelihood ratio (LR)	LR > 1 indicates an increased likelihood of disease, LR < 1 indicates a decreased likelihood of disease. The most helpful tests generally have a ratio of less than 0.2 or greater than 5.
Relative risk reduction (RRR)	The percentage difference in risk or outcomes between treatment and control groups. Example: if mortality is 30% in controls and 20% with treatment, RRR is (30 – 20)/30 = 33%.
Absolute risk reduction (ARR)	The arithmetic difference in risk or outcomes between treatment and control groups. Example: if mortality is 30% in controls and 20% with treatment, ARR is 30 – 20 = 10%.
Number needed to treat (NNT)	The number of patients who need to receive an intervention instead of the alternative in order for one additional patient to benefit. The NNT is calculated as: 1/ARR. Example: if the ARR is 4%, the NNT = 1/4% = 1/0.04 = 25.
Number needed to harm (NNH)	The number of patients who need to receive an intervention instead of the alternative in order for one additional patient to experience an adverse event.
95% CI	An estimate of certainty. It is 95% certain that the true value lies within the given range. A narrow CI is good. A CI that spans 1.0 calls into question the validity of the result.
Systematic review	A type of review article that uses explicit methods to comprehensively analyze and qualitatively synthesize information from multiple studies
Meta-analysis	A type of systematic review that uses rigorous statistical methods to quantitatively synthesize the results of multiple similar studies