JAMA Clinical Guidelines Synopsis

Standards of Care for Transgender and Gender Diverse People

Tonia Poteat, PhD, PA-C, MPH; Andrew M. Davis, MD, MPH; Alex Gonzalez, MD, MPH

GUIDELINE TITLE Standards of Care for the Health of Transgender and Gender Diverse People, Version 8 (SOC-8)

RELEASE DATE September 15, 2022

DEVELOPER AND FUNDING SOURCE World Professional Association for Transgender Health (WPATH)

PRIOR VERSION August 27, 2012

TARGET POPULATION Transgender and gender diverse people

SELECT MAJOR RECOMMENDATIONS

1. Primary care
   a. Transgender and gender diverse patients should receive nonjudgmental care from appropriately trained health care professionals. Gender-affirming primary care includes preventive care, mental health and substance use disorder screening, hormone therapy, and education about nonmedical/nonsurgical gender-affirming interventions.
2. Assessment of transgender and gender diverse persons
   a. When the adult patient desires gender-affirming medical and/or surgical treatment (GAMST) that aligns physical characteristics with gender identity, this care should be offered when there is a marked and sustained difference between sex assigned at birth and current gender; there is capacity for informed consent; physical and/or mental health conditions that may be affected by GAMST have been assessed; and reproductive implications and options have been discussed.
   b. Children and adolescents require a multidisciplinary approach, which considers developmental stage, neurocognitive function, language skills; offers mental health support; discusses risks and benefits of social transition; and includes parental/guardian involvement in GAMST in almost all situations.
3. Mental health
   a. Any qualified health professional with the ability to identify gender incongruence may assess patients for GAMST. No more than 1 letter of recommendation is required for GAMST in adults.
   b. Psychotherapy is not required before GAMST, although therapy may be helpful for some.
   c. Therapy to change gender identity or expression is associated with increased suicide risk and should not be offered to transgender and gender diverse patients.
4. Medication
   a. To improve psychosocial functioning and quality of life, clinicians should assess, and if appropriate, initiate and continue hormone therapy for eligible transgender and gender diverse people when it is required.
   b. Eligible adolescent transgender and gender diverse patients may be offered hormone suppression after pubertal onset (Tanner stage 2) and menstrual suppression for eligible adolescents assigned female at birth, when testosterone is not yet indicated.
5. Surgery
   a. Clinicians should counsel transgender and gender diverse patients seeking surgical options about associated risks and benefits unless surgery is contraindicated.
   b. Qualified surgeons should have training and continuing education in gender-affirming procedures and should track their surgical outcomes.
6. Education
   a. The health care workforce should receive transgender and gender diverse cultural awareness continuing education.
   b. Health care training programs should include competencies in transgender and gender diverse health.

Transgender and *gender diverse* are broad terms used to describe individuals whose gender identities and expressions differ from the gender attributed to the sex assigned at birth, typically either female or male. Estimates of the proportion of transgender and gender diverse individuals worldwide range from 0.6% to 3% and have increased in recent years, particularly among adolescents and young adults.[1]

Transgender and gender diverse patients face multiple barriers to medical care, with a 2019 systematic review finding that 27% (range, 19%-40%) had been denied care by a health professional.[2] A 2018 study of primary care clinicians found that 85% were willing to provide care for transgender and gender diverse persons, but 52% were unfamiliar with health care guidelines for transgender and gender diverse people.[3]

In a population-based study, transgender and gender diverse participants self-reported mean poor mental health of 14.8 (95% CI, 13-16.7) days per month compared with 6.0 (95% CI, 5.2-6.8) for cisgender participants.[4] Gender-affirming medical and surgical treatment (GAMST) can mitigate psychologic distress and reduce suicide risk by aligning physical characteristics with gender identity when there is marked, persistent incongruence with the sex assigned at birth (gender dysphoria).[1] The guidelines address various gender identities and recommend comprehensive health care beyond hormonal or surgical treatments, including primary care, reproductive and sexual health care, mental health care, voice therapy,

Viewpoint

Table. Guidelines Rating

Standard	Rating
1. Establishing transparency	Good
2. Management of conflict of interest	Good
3. Guideline development group composition	Fair
4. Clinical practice guideline-systematic review intersection	Good
5. Establishing evidence foundations and rating strength for each of the guideline recommendations	Fair
6. Articulation of recommendations	Fair
7. External review	Fair
8. Updating	Fair
9. Implementation issues	Fair

hair removal, and prosthetics. GAMST typically involves either feminizing therapy for transgender and gender diverse individuals assigned male at birth or masculinizing therapy for those assigned female at birth. The SOC-8 includes detailed recommendations on use of gender-affirming hormones and their doses, as well as recommendations for preventive care and screening. This synopsis provides an overview of guideline recommendations most relevant for primary care clinicians.

Characteristics of the Guideline Source

A multidisciplinary SOC-8 guidelines committee included health care professionals, researchers, and stakeholders with diverse perspectives and geographic representation (**Table**). An independent university-based evidence review team conducted a series of systematic reviews that identified 389 studies. The final SOC-8 referenced more than 1400 studies. Recommendation statements were crafted by chapter leads, reviewed through a Delphi process that included all members of the committee, and required approval by at least 75% of members. The strength of the recommendations was determined using an adapted GRADE framework and they were designated as either "recommended" or "suggested" based on potential benefits and harms, confidence in the balance and quality of evidence, values and preferences of health care professionals and patients, and resource use and feasibility.

Evidence Base

The expanding evidence base and scientific understanding of gender diversity and GAMST includes increased data on the prevalence of mental health disparities by gender identity and additional evidence of positive outcomes associated with GAMST. A rigorous 2021 systematic review found evidence that gender-affirming hormone therapy may be associated with increased quality of life, decreased depression, and decreased anxiety.[1] A prospective longitudinal cohort study of 18-month gender-affirming hormone therapy found reductions in anxiety and depression symptoms using the Hospital Anxiety and Depression Scale from 7.24 (SD, 4.03) to 5.19 (SD, 3.73) ($P < .001$).[5] A more recent study on pubertal blockers and gender-affirming hormone therapy in adolescents (mean age, 15.8 years) found 60% lower odds of depression (adjusted odds ratio [aOR], 0.40; 95% CI, 0.17-0.95) and 73% lower odds of suicidality (aOR, 0.27; 95% CI, 0.11-0.65) among youth who had initiated this therapy, compared with those who had not. Similarly, a systematic review of gender-affirming surgical outcomes found that individuals with gender dysphoria who underwent a variety of surgical interventions experienced significant improvements in quality of life and psychological well-being.[6]

The stability of the decision to transition during adolescence has been evaluated. In a Dutch study of 720 individuals receiving gonadotropin-releasing hormone agonist (GnRHa) treatment to delay puberty progression, adolescents assigned male at birth started GnRHa at median age 14.1 years and adolescents assigned female at birth started GnRHa at median age 16.0 years; 98% of people who started this treatment in adolescence were using gender-affirming hormones at age 20 years.[7] Conversely, efforts to change a transgender or gender diverse person's gender identity (sometimes termed "reparative" or "conversion therapy") have been associated with major adverse outcomes.[1] Participants exposed to these types of gender identity change efforts had twice the odds of attempted suicide (aOR, 2.27; 95% CI, 1.60-3.24; $P < .001$) compared with those who had not been exposed. Among transgender and gender diverse adults exposed to these efforts before the age of 10 years, the odds of suicide attempt were increased 4-fold (aOR, 4.15; 95% CI, 2.44-7.69; $P < .001$).[1] A recent study of 317 transgender-identified youth found that 94% of those who socially transitioned at early prepubertal ages (mean, 8.1 years) maintained the same gender identity at an average follow-up of 5 years.

Benefits and Harms

Clinicians must weigh the potential risks of GAMST alongside the known reductions in mental health and substance use morbidity seen with social support and institution of GAMST in transgender and gender diverse people.[1] Expected benefits and potential adverse effects should be reviewed with the patient and for adolescents their parent(s)/guardian(s) in almost all situations.[1] Voice lowering is generally irreversible, and gender-affirming hormone therapy may impair fertility. Gender-affirming hormone therapy for those assigned female at birth (testosterone) or assigned male at birth (estrogens, progestins, and androgen blockers) may be associated with increased risk of cardiovascular events such as stroke, venous thromboembolism, and myocardial infarction. A Dutch study compared mortality risk in transgender individuals receiving hormone treatment with that of the general population over 5 decades. The investigators found that transgender women died more frequently from cardiovascular disease (standardized mortality ratio [SMR], 1.4; 95% CI, 1.0-1.8), lung cancer (SMR, 2.0;, 95% CI, 1.4-2.8), infection (SMR, 5.4; 95% CI, 2.9-8.7), or nonnatural causes of death (SMR, 2.7; 95% CI, 1.8-3.7). In transgender men, the overall mortality risk was comparable with men in the general population (SMR, 1.2; 95% CI, 0.9-1.6).[8] Whether hormone treatment increases the risk of hormone-sensitive cancer has not yet been fully established.[1,8]

The SOC-8 guidelines recommend following local breast cancer screening guidelines developed for cisgender women in transgender and gender diverse individuals who have received estrogens (considering dose, duration, and timing), and in those with breasts from natal puberty who have not had gender-affirming chest surgery. Individuals with a cervix should follow screening guidelines developed for cisgender women.[1]

Gender-affirming surgical treatment for transgender and gender diverse people may include facial, chest, and genital surgeries. Risks differ by procedure, but studies estimate that overall satisfaction with postoperative results among transgender and gender diverse people is greater than 94%.[9] Surgical risks may include rec-

toneovaginal fistulas, urethral complications, tissue necrosis, and scarring. As with hormone therapy, genital surgeries impact reproductive potential; therefore, the informed consent process should address these risks and discuss options for fertility preservation.[1]

Conclusions

The expanded depth and scope of SOC-8 reflect the increase in transgender and gender diverse health research over the past decade. The SOC-8 has moved beyond a singular focus on hormones and surgery to include recommendations for primary care, sexual and reproductive health, mental health, voice, and communication therapy, as well as cultural awareness and human rights. If written documentation or a letter is required to recommend GAMST in an adult, only one letter of assessment from a health care professional who has competencies in the assessment of transgender and gender diverse people is needed, due to the limited clinical value of a second letter.[1] In adolescents, a letter of assessment from a member of a multidisciplinary team is needed and should reflect the assessment and opinion of a team that involves both medical and mental health professionals.[1]

At least 6 months of exogenous hormone therapy before gender-affirming surgery is optimal, but not mandatory.[1] Measures to address stigma, discrimination, and human rights violations may be equally important in improving the health for transgender and gender diverse people worldwide, and also improve access to the essential care outlined in the SOC-8 guideline.

Areas for Future Research

Including gender identity measures in all population-based federal surveys would allow for a broader understanding of a variety of health care needs and experiences of transgender and gender diverse people. Longitudinal studies that follow cohorts over decades would expand understanding of the long-term effects of GAMST, including the use of progesterone in transgender and gender diverse women. Such studies would help inform ongoing policy debates that affect issues ranging from insurance coverage for GAMST to the legality of gender-affirming care, especially for transgender and gender diverse youth.[10]

Other Resources

National LGBTQIA Health Education Center. Affirmative Services for Transgender and Gender-Diverse People: Best Practices for Frontline Health Care Staff

ARTICLE INFORMATION

Author Affiliations: Department of Social Medicine, University of North Carolina, Chapel Hill (Poteat); Section of General Internal Medicine, University of Chicago, Chicago, Illinois (Davis); Atrius Health, Boston, Massachusetts (Gonzalez).

Corresponding Author: Andrew M. Davis, MD, MPH, University of Chicago Medicine, 5841 S Maryland Ave, Chicago, IL 60637 (amd@uchicago.edu).

Section Editor: David L. Simel, MD, MHS, Associate Editor.

Published Online: May 18, 2023. doi:10.1001/jama.2023.8121

Conflict of Interest Disclosures: None reported.

Note: Several references are available through embedded hyperlinks in the article text online.

REFERENCES

1. Coleman E, Radix AE, Bouman WP, et al. Standards of care for the health of transgender and gender diverse people, version 8. *Int J Transgend Health*. 2022;23(suppl 1):S1-S259. doi:10.1080/26895269.2022.2100644

2. Scheim AI, Baker KE, Restar AJ, Sell RL. Health and health care among transgender adults in the United States. *Annu Rev Public Health*. 2022;43:503-523. doi:10.1146/annurev-publhealth-052620-100313

3. Shires DA, Stroumsa D, Jaffee KD, Woodford MR. Primary care clinicians' willingness to care for transgender patients. *Ann Fam Med*. 2018;16(6):555-558. doi:10.1370/afm.2298

4. Feldman JL, Luhur WE, Herman JL, Poteat T, Meyer IH. Health and health care access in the US transgender population health (TransPop) survey. *Andrology*. 2021;9(6):1707-1718. doi:10.1111/andr.13052

5. Aldridge Z, Patel S, Guo B, et al. Long-term effect of gender-affirming hormone treatment on depression and anxiety symptoms in transgender people: a prospective cohort study. *Andrology*. 2021;9(6):1808-1816. doi:10.1111/andr.12884

6. Wernick JA, Busa S, Matouk K, Nicholson J, Janssen A. A systematic review of the psychological benefits of gender-affirming surgery. *Urol Clin North Am*. 2019;46(4):475-486. doi:10.1016/j.ucl.2019.07.002

7. van der Loos MATC, Hannema SE, Klink DT, den Heijer M, Wiepjes CM. Continuation of gender-affirming hormones in transgender people starting puberty suppression in adolescence: a cohort study in the Netherlands. *Lancet Child Adolesc Health*. 2022;6(12):869-875. doi:10.1016/S2352-4642(22)00254-1

8. de Blok CJ, Wiepjes CM, van Velzen DM, et al. Mortality trends over five decades in adult transgender people receiving hormone treatment: a report from the Amsterdam cohort of gender dysphoria. *Lancet Diabetes Endocrinol*. 2021;9(10):663-670. doi:10.1016/S2213-8587(21)00185-6

9. van de Grift TC, Elaut E, Cerwenka SC, Cohen-Kettenis PT, Kreukels BPC. Surgical satisfaction, quality of life, and their association after gender-affirming surgery: a follow-up study. *J Sex Marital Ther*. 2018;44(2):138-148. doi:10.1080/0092623X.2017.1326190

10. de Vries ALC, Hannema SE. Growing evidence and remaining questions in adolescent transgender care. *N Engl J Med*. 2023;388(3):275-277. doi:10.1056/NEJMe2216191