

Medical Care for Nonbinary Youth: Individualized Gender Care Beyond a Binary Framework

Jen Hastings, MAT, MD; Callum Bobb, MS; Michelle Wolfe, MD; Zo Amaro Jimenez, PsyD; and Colt St. Amand, PhD, MD

ABSTRACT

Nonbinary and genderqueer youth represent well over a one-third of transgender youth. Historically, transgender health care has been based on the gender binary, and as a result, many nonbinary people have chosen to forego care or withhold their authentic needs or goals when accessing care. This article presents a paradigm shift in gender care, which addresses discrimination and stigma and outlines components of supportive and affirming care to gender expansive youth. Nonbinary youth are best served when providers use gender-affirming language and focus on embodiment goals. Medical interventions may include pubertal suppression, hormones, and surgeries, which are best reviewed by individual physical effects rather than with “masculinizing” or “feminizing” terminology. Individualized goals may be supported by estrogen, testosterone, or a combination of both. Providers should be prepared to facilitate supportive conversations, difficult decisions, and balancing of priorities with nonbinary patients and their families. [*Pediatr Ann.* 2021;50(9):e384-e390.]

I am a boy-girl. ... I feel like myself. ... I don't feel different from anyone else. ... I feel like a girl, as well as a boy. -9-year-old, Halle!¹

Nonbinary and genderqueer people experience their sense of gender in expansive and unique ways. Although there is no singular expression of nonbinary gender (just as the categories of man and woman are not monolithic), one common thread among nonbinary and genderqueer people is a sense that the expectations within the gender binary do not adequately reflect their sense of self. Nonbinary youth can have a gender that is neither exclusively boy nor girl, may be composed of elements of boy and girl (eg, Two Spirit—which is used by some Native American communities), moves between genders (eg, genderfluid), is situated beyond the

binary (eg, genderqueer), rejects having a gender (eg, agender), or some combination thereof.² Any of these identities can be consistent or evolving. Nonbinary persons often encompass elements of gender fluidity, whereby their sense of gender embodiment is changing over time, day by day, or sometimes over the course of a day. Gender fluidity can be the dynamic expression of not having a fixed gender, whereby fluidity itself is consistent, or it can be part of a journey of gender exploration which leads to an evolution of gender. Embracing variability in gender identity and embodiment is an important component of supporting youth as they come to understand themselves.

The terms for describing gender beyond the binary continue to evolve and expand, and many people use more than one identifier to describe their experi-

ence or identity (**Figure 1**). With the rapid and ongoing evolution of language and terminology, we recommend that providers focus less on memorizing discrete definitions, and instead express interest and listen to what the term means to each patient. Although we recognize that language is insufficient to capture the nuances of the infinite possibilities of gender,³ we will use the terms nonbinary and genderqueer interchangeably in this article to encompass the wide range of gender expansive and/or gender fluid identities. It is important to note that some terms have a history of derogatory usage. Given this history, it is best practice to ask individuals what terms they wish rather than make assumptions about language.

An increasing number of nonbinary young people are presenting to providers for care. In a 2021 publication of high school students from a single urban school district, 9.2% reported a gender diverse identity, which is significantly higher than prior surveys, and one-third of these reported a nonbinary identity.⁴ The 2015 US Transgender Survey arrived at a similar percentage for nonbinary identities.⁵ Increased depression, anxiety and self-harm in nonbinary youth as compared to binary transgender youth may be the result of a lack of access to affirming care, increased discrimination, parental rejection, and violence, along with the challenges of

TABLE 1.

Using Third Person Singular Pronouns^a

Third Person Singular Pronouns	Subject	Object	Possessive
They/Them/Theirs	They are happy	I saw them	Their hat
Ze/Hir/Hirs ("Zee," "Heer," "Heers") ^b	Ze is happy	I saw hir	Hir hat
Name as pronoun	Ariel is happy	I saw Ariel	Ariel's hat

^aAn increasing number of people are comfortable with more than one pronoun and may share their acceptable pronouns as "she/they" or "he/they." These only replace third person pronouns (ie, "they" replaces "she/he" pronouns), not second person pronouns such as "you."

^bThe following pronouns follow the same format as ze/hir/hirs and pronunciation may vary. Fae/Faer/Faers ("Fay," "Fair," "Fairs"), Xe/Xyr/Xyrs, ("Zee," "Zeer," "Zeers"), Eyr/Em/Eirs ("ay," "em," "air").

of sexually transmitted infection and pregnancy risks, as well as desires for future fertility.

CLINIC ENVIRONMENTS

Medical practices should strive to be inclusive and affirming of patients of all genders, before and throughout the visit, with upgraded electronic medical record systems that appropriately guide all staff with accurate names and pronouns, gender identities, and sexualities. Many genderqueer people will use pronouns other than "he/him/his" or "she/her/hers" or will designate that they are comfortable with a combination of pronouns. Currently, nonbinary people often use the singular third person pronouns "they/them/theirs." Some request no pronoun (use just their name); and there are also a wide variety of other pronouns that may become more popular over time, such as "ze/hir/hirs" (Table 1). It is recommended that providers practice pronouns that are new to them, as accurate pronouns are essential to developing rapport and trust, and because the frequency of being misgendered is associated with depression and suicidality.^{9,10} As providers work toward becoming proficient with new pronouns, comments about the provider's discomfort or struggle with using these pronouns should be avoided with patients. Providers should take care to use

only the most current name and pronouns for patients and invite patients to share updates frequently.^{11,12}

The assumptions that endosex (someone whose sex characteristics are expected for the male or female sex, ie, someone who is not intersex), cisgender, and heterosexuality are "normal" (ie, endocisheteronormativity), and that intersex, transgender or gender expansive, and/or LGBTQIA (lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, and asexual and/or ally) persons are, by comparison, abnormal, are often unrecognized beliefs that increase stigma and discrimination in health care settings.¹³ Due to the history of pathologization, many gender expansive clients anticipate an unwelcoming and nonaffirming experience with providers.¹⁴ All efforts to demonstrate an affirming approach, and make changes when given feedback, will enhance patient comfort and trust. Additional references on creating affirming and inclusive clinical spaces specific to nonbinary patients can be found in Table 2.

ORIENTING TO CARE

Best Practices

Historically, transgender health guidelines such as the World Professional Association for Transgender Health (WPATH) have been based on the gen-

der binary, requiring patients to specify "transition" to male or female to access medical support. With this binary criteria, nonbinary patients are frequently refused care, often encountering the judgment that they are "not trans enough." The addition of "Gender Nonconforming People" in version 7 of the WPATH Standards of Care in 2011,¹⁵ and in the American Psychological Association¹⁶ in 2015, signaled an increasing acknowledgment of nonbinary identities, and paved the way for improved access and care. With many providers not recognizing or understanding nonbinary identities, it is still common for nonbinary people to either not seek care or not share their authentic goals or needs when accessing care.^{2,17}

The concept of "embodiment" acknowledges the process of making visible one's internal awareness of self, and is an alternative framing for "transition," which implies a linear journey from one (often binary) gendered category to another. Providers are encouraged to learn about experiences of genderqueer people and how to provide an individual approach to care that is not solely based on the traditional gender binary medical narrative.^{18,19} Nonbinary role models (movies, TV, cartoons, avatars; see resources in Table 2) can be a powerful antidote to the anxiety about an unknown future for youth and parents. Facilitating a process that is framed in terms of gender euphoria—feeling positive, proud, or euphoric about one's gender identity or body—rather than dysphoria, may be helpful.²⁰

Behavioral Health Care

Behavioral health with gender-affirming, knowledgeable, and experienced therapists may function as an adjunct to medical care and increase youth's self-understanding of embodiment goals and possible medical interventions, while also addressing overall mental health. Medical and mental health providers'

trust of youth's self-knowing and autonomy, celebrating what youth know about themselves, and normalizing exploration of the parts they still do not know, are all elements of affirming-gender care.^{21,22} The purpose of this support is not to evaluate whether a youth is transgender or not, rather it is to support their self-discovery in the context of a transphobic culture, and assist youth and families to navigate complex decisions around gender-affirming treatments. "It is not our role to tell children who they are or who they will be. Instead, our role is to help children feel valued and supported."²³

Role of Parents

Providers are in a position to substantially influence youth mental health not only through direct interventions, but also by modeling and promoting parental acceptance. Transgender and gender expansive youth who have parental support have lower rates of anxiety, depression, suicidal ideation and attempts, demonstrating the powerful and protective effect of parental support.²⁴ Teenagers report use of requested name and pronouns as an effective way for parents to communicate support.²⁵ Parents who present an encouraging, supportive, and loving message to their children (even if they are processing, learning, and questioning internally and simultaneously) are likely to have a significantly more positive impact on their child compared to those parents who process concerns and fears in the presence of their child. Thus, parents need their own support, and parent support groups are a key part of parental thriving.²⁶ "You are my child, you will always be my child, and I will always love you. This is something I do not know much about, but I promise to keep learning more. No matter what, we will get through this together" (Robert S. Meier, PhD, oral communication, May 15, 2010).

TABLE 2.

Selected Resources for Gender-Affirming Care

- *National LGBT Health Education Center*
<https://www.lgbtqihealtheducation.org/wp-content/uploads/2017/02/Providing-Affirmative-Care-for-People-with-Non-Binary-Gender-Identities.pdf>
- *UCSF Center of Excellence for Transgender Health Primary Care Protocols*
<https://transcare.ucsf.edu/guidelines>
- *Supporting and Caring for Transgender Children*
<https://www.hrc.org/resources/supporting-caring-for-transgender-children>
- *Lyon Martin Trans Health Line*
<http://project-health.org/transline/>
- *Tucking/Packing/Binding/Voice*
http://callen-lorde.org/graphics/2018/09/HOTT-Safer-Tucking_Final.pdf
http://callen-lorde.org/graphics/2018/09/Safer-Binding_2018_FINAL.pdf
http://callen-lorde.org/graphics/2018/09/HOTT-Voice-Brochure_Final.pdf
- *Resources, Important Facts for Kids and Parents: Understanding Nonbinary Identities*
<https://www.wbur.org/commonhealth/2021/04/01/nonbinary-gender-identity-children-readings-resources>
- *Books*
<https://www.goodreads.com/list/tag/non-binary>
- *Films, TV Series, Cartoons*
<https://filmdaily.co/news/gender-nonbinary-characters/>

OPTIONS ON THE PATH TO GENDER EMBODIMENT

With the unique paths of nonbinary people, there is no "right way" or uniform trajectory for medical interventions. Individuals and families often feel they are charting their own path. Pubertal suppression, hormones and/or surgeries may or may not be desired as part of embodiment. Non-medical interventions such as binding, tucking, stuffing, and packing, voice therapy, and procedures such as hair removal, are additional aspects of care to be discussed as puberty progresses (see **Table 2**).

A person's gender identity is distinct from their physical embodiment goals. Embodiment goals are for each person to discover, explore, and reveal, as their unique vision and journey unfolds, often in circuitous and nonlinear ways. This nonlinearity can be uncomfortable for many providers and families due to the uncertainty inherent to this process, and

the pervasive narratives of linear transition from "one" gender to "the other" gender. It is essential to develop a nonjudgmental, trusting relationship with patients so that they can explore their embodiment goals in partnership with their providers.

Considerations Before Puberty

No medications or medical interventions are indicated before puberty. Supporting authentic embodiment through expressions such as name, pronouns, clothes, and haircuts can be life changing and have been shown to improve mental health.²⁴ Pubertal suppression can be considered at the onset of puberty, and gender-affirming hormones at an age concurrent with peers.²⁷

Medical Interventions

We recommend that medical interventions including pubertal suppression, hormones, and surgeries be reviewed by physical and emotional effects on the in-

dividual youth to facilitate supportive conversations about physical goals with genderqueer patients and families, rather than by “masculinizing” or “feminizing” goals. It is important to ask about and use affirming language for body parts during these discussions. Providers are encouraged to empower youth to explore what is best for them as pubertal development unfolds. Dissolving assumptions of physical and emotional goals based on gender and offering all of the options for your patient to self-actualize is a key component of individualized gender care.

Puberty Blockers: Gonadotropin-Releasing Hormone Agonists

Puberty blockers (gonadotropin-releasing hormone agonists [GnRH]) pause the development of secondary sex characteristics, some of which are considered permanent (breast/chest growth, voice deepening, facial and body hair, bone structure) and some of which are not permanent (menses, muscle, and fat distribution). Data on the benefits of puberty blockers and guidelines to support transgender and nonbinary youth can be found from centers in the United States, Canada, and Europe such as the University of California San Francisco Center of Excellence for Transgender Health and the Center of Excellence on Gender Dysphoria in Amsterdam, The Netherlands.²⁷⁻²⁹ Care should be taken to avoid prolonged monotherapy with a puberty blocker as this can lead to low bone density. Bone health can be supported with weight-bearing exercise, adequate calcium intake, and supplementing vitamin D.³⁰ If the puberty blocker is discontinued, endogenous hormone levels will gradually increase, and puberty will restart where it paused, typically within 3 to 6 months. If an exogenous hormone is started, the puberty blocker is often

continued while the hormone dose is gradually increased.²

Hormones and Other Medications

As already highlighted, when discussing medical options with youth and families, reviewing the specific effects of interventions is a useful framing for identifying possible medical pathways rather than describing interventions as “masculinizing” or “feminizing.” Individuals can connect specific goals (such as limited or increased facial or body hair, lower or no change in voice, menstrual suppression, presence or absence of breast/chest growth) with the effects of testosterone, estrogen, and other medications to identify a possible medical pathway that supports their unique journey.

Medications in the US include pubertal suppression (GnRH agonists), affirming hormones (estrogen, testosterone, progesterone), antiandrogens (spironolactone, bicalutamide, dutasteride, finasteride), selective estrogen receptor modulators, and approaches for menstrual suppression (including levonorgestrel intrauterine device).³¹ Although there are limited recommendations on medical care for genderqueer persons,¹⁹ providers modify traditional guidelines^{14,18,27} (see **Table 2**) to support patient goals. Gradual titration or tapering of doses for individual response and effect, using lower doses, intermittent dosing, using both estrogen and testosterone, adding adjunctive medications, and other approaches to “fine tuning” medications are part of the repertoire of individualized gender care. Balancing goals involves addressing both desired and unwanted effects. We anticipate publications over the coming years delineating specifics on these recommended practices.

We recommend supporting youth by “listening” and connecting to their ex-

perience, so they are better able to evaluate their response to an intervention. Centering decision-making with the individual fosters a deeper connection to the process as their own. Any time a patient starts on a new medication, consider it a trial, and follow up with the patient regarding their experience, noting what the effects are, and if this is in alignment with their goals. Honor the experience and perspective of gender and medical care as a journey. This means that a person can start with a vision or goal, and then with information gained through medical intervention, change their goal. Changing direction is not a treatment failure but rather part of a developmental progression to deeper understanding and knowing of self. This nuanced process can improve the quality of care for all transgender and gender expansive persons, regardless of identity.

Of note, although some hormonally induced changes are considered “permanent” (ie, hair growth, breast growth, lowered voice) it is the experience of the authors as well as patients, that the maximum effects reached via hormone therapy shift back in varying degrees toward the pre-hormone therapy state when a medication is stopped. As an example, a lowered voice from testosterone-thickened vocal cords will not necessarily remain at the same low pitch if testosterone is discontinued.

Given that at present there are no “nonbinary” hormones or a “nonbinary” puberty, decisions regarding hormone care can be extremely difficult for genderqueer persons, including youth, who often express a desire for no secondary sex characteristics or sex hormones. Although we hope that development of adjunctive or selective sex hormones targeted to specific receptors will help make these difficult decisions easier, at present estrogen or testosterone are

needed to support physiologic processes such as bone health. More research is needed to correlate hormone dose and serum levels with optimal bone health.

Future Fertility Options

Informed consent (or assent for those younger than age 18 years) regarding decisions as to whether to continue pubertal suppression and/or a primarily estrogen or primarily testosterone induced puberty ideally involve discussions regarding future fertility. Successful pregnancies and contribution to pregnancies even after relatively long-term use of exogenous gender-affirming hormones as well as advances in assisted reproductive technologies (egg stimulation, retrieval and freezing after puberty blocking) have expanded our understanding and optimism for potential options for family building.³²⁻³⁴ Thinking about fertility at this age may be challenging for youth and parents; it can involve invasive procedures and a choice between gender congruence and biological children. Nonetheless, youth often develop surprisingly sophisticated approaches to navigating these complex issues. Informed mental health clinicians can be an important support for families and youth trying to make decisions.

CONCLUSION

As an increasing number of youth identify as nonbinary, there are a number of considerations and interventions medical professionals can explore with patients and their families. Care for nonbinary and genderqueer youth involves ongoing dialogue and support to navigate a potentially nonlinear gender path. These conversations are not just necessary for good client care, but help professionals avoid making assumptions about their patients' gender embodiment goals. Nonbinary oriented care requires that professionals understand and sup-

port their patients in exploring individual embodiment goals that go beyond transition narratives based in binary gender expectations. Consider treatment options that include varied hormonal outcomes, non-medical options, as well as surgeries and medical procedures that center client goals. It is likely that the field of gender-affirming health care will grow to better support nonbinary and binary patients with both clearer and more expansive treatment options as the field becomes a supportive and nonjudgmental environment for self-discovery.

REFERENCES

1. Bebinger M. "I just feel like myself": a non-binary child and their family explore identity. Accessed August 18, 2021. <https://www.wbur.org/commonhealth/2021/04/01/nonbinary-gender-identity-children-massachusetts>
2. Koehler A, Eyssel J, Nieder TO. Genders and individual treatment progress in (non-)binary trans individuals. *J Sex Med*. 2018;15(1):102-113. <https://doi.org/10.1016/j.jsxm.2017.11.007> PMID:29229223
3. Rajunov M, Duane AS, eds. *Nonbinary: Memoirs of Gender and Identity*. Columbia University Press; 2019. <https://doi.org/10.7312/raju18532>
4. Kidd KM, Sequeira GM, Douglas C, et al. Prevalence of gender-diverse youth in an urban school district. *Pediatrics*. 2021;147(6):e2020049823. <https://doi.org/10.1542/peds.2020-049823> PMID:34006616
5. James SE, Herman JL, Rankin S, Keisling M, Mottet L, Anafi M. The report of the 2015 U.S. transgender survey. National Center for Transgender Equality. Accessed August 18, 2021. <https://transequality.org/sites/default/files/docs/usts/USTS-Full-Report-Dec17.pdf>
6. Lefevor GT, Boyd-Rogers CC, Sprague BM, Janis RA. Health disparities between genderqueer, transgender, and cisgender individuals: an extension of minority stress theory. *J Couns Psychol*. 2019;66(4):385-395. <https://doi.org/10.1037/cou0000339> PMID:30896208
7. Robinson M. Two-spirit identity in a time of gender fluidity. *J Homosex*. 2020;67(12):1675-1690. <https://doi.org/10.1080/00918369.2019.1613853> PMID:31125297
8. Abrams M. What are the different types of sexuality? 46 LGBTQIA+ terms that describe sexual attraction, behavior and orientation. Healthline. Accessed August 27, 2021. <https://www.healthline.com/health/different-types-of-sexuality>
9. Russell ST, Pollitt AM, Li G, Grossman AH. Chosen name use is linked to reduced depressive symptoms, suicidal ideation, and suicidal behavior among transgender youth. *J Adolesc Health*. 2018;63(4):503-505. <https://doi.org/10.1016/j.jadohealth.2018.02.003> PMID:29609917
10. Dolan IJ, Strauss P, Winter S, Lin A. Misgendering and experiences of stigma in health care settings for transgender people. *Med J Aust*. 2020;212(4):150-151.e1. <https://doi.org/10.5694/mja2.50497> PMID:32030758
11. Eisenberg ME, McMorris BJ, Rider GN, Gower AL, Coleman E. "It's kind of hard to go to the doctor's office if you're hated there." A call for gender-affirming care from transgender and gender diverse adolescents in the United States. *Health Soc Care Community*. 2020;28(3):1082-1089. <https://doi.org/10.1111/hsc.12941> PMID:31917883
12. Goldhammer H, Malina S, Keuroghlian AS. Communicating with patients who have nonbinary gender identities. *Ann Fam Med*. 2018;16(6):559-562. <https://doi.org/10.1370/afm.2321> PMID:30420374
13. Kcomt L, Gorey KM, Barrett BJ, McCabe SE. Healthcare avoidance due to anticipated discrimination among transgender people: a call to create trans-affirmative environments. *SSM Popul Health*. 2020;11(100608):100608. <https://doi.org/10.1016/j.ssmph.2020.100608> PMID:32529022
14. Hendricks ML, Testa RJ. A conceptual framework for clinical work with transgender and gender nonconforming clients: an adaptation of the minority stress model. *Prof Psychol Res Pr*. 2012;43(5):460-467. <https://doi.org/10.1037/a0029597>
15. World Professional Association for Transgender Health. Standards of Care for the Health of Transsexual, Transgender, and Gender-Conforming People (7th version); 2012. <https://www.wpath.org/publications/soc>
16. American Psychological Association. Guidelines for psychological practice with transgender and gender nonconforming people. *Am Psychol*. 2015;70(9):832-864. <https://doi.org/10.1037/a0039906> PMID:26653312
17. Lykens JE, LeBlanc AJ, Bockting WO. Healthcare experiences among young adults who identify as genderqueer or nonbinary. *LGBT Health*. 2018;5(3):191-196. <https://doi.org/10.1089/lgbt.2017.0215> PMID:29641314
18. National LGBT Health Education Center. Providing affirmative care for patients with non-binary gender identities. Accessed August 18, 2021. <https://www.lgbtqihealtheducation.org/wp-content/uploads/2017/02/Providing-Affirmative-Care-for-People-with-Non-Binary-Gender-Identities.pdf>
19. Cocchetti C, Ristori J, Romani A, Maggi M, Fisher AD. Hormonal treatment strategies

- tailored to non-binary transgender individuals. *J Clin Med*. 2020;9(6):1609. <https://doi.org/10.3390/jcm9061609> PMID:32466485
20. Bradford NJ, Rider GN, Spencer KG. Hair removal and psychological well-being in transfeminine adults: associations with gender dysphoria and gender euphoria. *J Dermatolog Treat*. 2021;32(6):635-642. doi:10.1080/09546634.2019.1687823 PMID:31668100
 21. Keo-Meier C, Ehrensaft D, eds. *The Gender Affirmative Model: An Interdisciplinary Approach to Supporting Transgender and Gender Expansive Children*. American Psychological Association; 2018.
 22. Singh AA, Dickey L m. Affirmative counseling with transgender and gender nonconforming clients. In: *Handbook of Sexual Orientation and Gender Diversity in Counseling and Psychotherapy*. American Psychological Association; 2017:157-182. <https://doi.org/10.1037/15959-007>
 23. Newhook JT, Winters K, Pyne J, et al. Teach your parents and providers well: call for refocus on the health of trans and gender-diverse children. *Can Fam Physician*. 2018;64(5):332-335. PMID:29760251
 24. Olson KR, Durwood L, DeMeules M, McLaughlin KA. Mental health of transgender children who are supported in their identities. *Pediatrics*. 2016;137(3):e20153223. <https://doi.org/10.1542/peds.2015-3223> PMID:26921285
 25. Hale AE, Chertow SY, Weng Y, Tabuenca A, Aye T. Perceptions of support among transgender and gender-expansive adolescents and their parents. *J Adolesc Health*. 2021;68(6):1075-1081. <https://doi.org/10.1016/j.jadohealth.2020.11.021> PMID:33707145
 26. Hillier A, Torg E. Parent participation in a support group for families with transgender and gender-nonconforming children: "being in the company of others who do not question the reality of our experience. *Transgend Health*. 2019;4(1):168-175. <https://doi.org/10.1089/trgh.2018.0018> PMID:31406916
 27. Olson-Kennedy J, Rosenthal, SM, Hastings J, Wesp L. Health considerations for gender non-conforming children and transgender adolescents. Accessed August 18, 2021. <https://transcare.ucsf.edu/guidelines/youth>
 28. Panagiotakopoulos L, Chulani V, Koyama A, et al. The effect of early puberty suppression on treatment options and outcomes in transgender patients. *Nat Rev Urol*. 2020;17(11):626-636. <https://doi.org/10.1038/s41585-020-0372-2> PMID:32968238
 29. Rafferty J; Committee on Psychosocial Aspects of Child and Family Health; Committee on Adolescence; Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness; Committee on Psychosocial Aspects of Child and Family Health, Committee on Adolescence, Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness. Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*. 2018;142(4):e20182162. <https://doi.org/10.1542/peds.2018-2162> PMID:30224363
 30. Lee JY, Finlayson C, Olson-Kennedy J, et al. Low bone mineral density in early pubertal transgender/gender diverse youth: findings from the Trans Youth Care Study. *J Endocr Soc*. 2020;4(9):bvaa065. <https://doi.org/10.1210/endo/bvaa065> PMID:32832823
 31. Carswell JM, Roberts SA. Induction and maintenance of amenorrhea in transmasculine and nonbinary adolescents. *Transgend Health*. 2017;2(1):195-201. <https://doi.org/10.1089/trgh.2017.0021> PMID:29142910
 32. Grimstad F, Boskey E. Empowering transmasculine youth by enhancing reproductive health counseling in the primary care setting. *J Adolesc Health*. 2020;66(6):653-655. <https://doi.org/10.1016/j.jadohealth.2020.03.012> PMID:32473720
 33. Roberts SA, Williams CR, Grimstad FW. Considerations for providing pediatric gender-affirmative care during the COVID-19 pandemic. *J Adolesc Health*. 2020;67(5):635-637. <https://doi.org/10.1016/j.jadohealth.2020.08.018> PMID:32943291
 34. Martin CE, Lewis C, Omurtag K. Successful oocyte cryopreservation using letrozole as an adjunct to stimulation in a transgender adolescent after GnRH agonist suppression. *Fertil Steril*. 2021;116(2):522-527. <https://doi.org/10.1016/j.fertnstert.2021.02.025> PMID:33795140

Copyrighted Material