


Dermatologic care of sexual and gender minority/LGBTQIA youth, Part 2: Recognition and management of the unique dermatologic needs of SGM adolescents

Cory Kosche BS¹ | Matthew Mansh MD² | Mark Luskus BA, MA³ | Andy Nguyen MD⁴ | Gabriel Martinez-Diaz MD, PhD⁵ | David Inwards-Breland MD, MPH⁶ | Howa Yeung MD³ | Markus D. Boos MD, PhD⁷ 

¹Rush Medical College, Rush University School of Medicine, Chicago, Illinois

²Department of Dermatology, University of Minnesota Medical School, Minneapolis, Minnesota

³Department of Dermatology, Emory University School of Medicine, Atlanta, Georgia

⁴Department of Medicine, Mount Auburn Hospital, Cambridge, Massachusetts

⁵Medical Director/CEO, MD Aesthetics and Dermatology LLC, Chicago, Illinois

⁶Division of Adolescent Medicine, Department of Pediatrics, University of Washington School of Medicine and Seattle Children's Hospital, Seattle, Washington

⁷Division of Dermatology, Department of Pediatrics, University of Washington School of Medicine and Seattle Children's Hospital, Seattle, Washington

Correspondence

Markus D. Boos, MD, PhD, Seattle Children's Hospital, 4800 Sand Point Way NE, OC.9.833, Seattle, WA 98105.

Email: markus.boos@seattlechildrens.org

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Abstract

Sexual and gender minority (SGM) individuals, including lesbian, gay, bisexual, transgender/gender diverse, questioning/queer, intersex, and asexual (LGBTQIA) persons, represent a historically underserved population within the field of medicine, though their unique health needs are increasingly recognized. Part 2 of this two-part review will address unique concerns regarding acne, tanning behavior, sexually transmitted infections, and other health disparities among SGM adolescents. A more comprehensive understanding of the dermatologic needs of SGM youth will better allow pediatric dermatologists to actively and compassionately care for this health disparity population.

KEYWORDS

acne, bisexual, gay, gender diverse, laser, lesbian, sexual and gender minority, sexually transmitted infections, surgery, tanning, transgender

1 | INTRODUCTION

Sexual and gender minority (SGM) individuals, including lesbian, gay, bisexual, transgender/gender diverse, questioning/queer, intersex, and asexual (LGBTQIA) persons, represent a historically underserved population within the field of medicine. Clinical practice guidelines addressing the optimal care of SGM youth exist to assist providers in best supporting their patients, though little has been written about managing the unique dermatologic needs of this population.¹⁻⁵ Part 2 of this review will focus on skin care of SGM youth, offering dermatologists guidance recognizing and managing unique concerns of this population regarding acne, tanning behavior, sexually transmitted infections, and other health disparities. We will also discuss how dermatologists who care for transgender/gender diverse children can support these patients and their families with thoughtful decision making surrounding minimally invasive procedures while transitioning, the process by which individuals change their physical presentation and/or sexual characteristics to align with their internal gender identity.

2 | TANNING BEHAVIOR AND SKIN CANCER RISK

Sexual minority males (SMM) are twice as likely as heterosexual males to report a history of skin cancer, including both melanoma and nonmelanoma skin cancer.⁶ One likely explanation for this disparity is that ultraviolet (UV) light exposure behaviors differ among SMM. As compared to heterosexual males, SMM report between three- to sixfold higher rates of indoor tanning,^{6,7} a known human carcinogen.⁸ This includes adolescent and young adult SMM,^{6,7,9,10} among whom indoor tanning is most associated with increased skin cancer risk.¹¹ SMM are also more likely to use sunless tanning products and less likely to wear protective clothing when outdoors, indicating an increased desire for tanned skin and, potentially, chronic sun exposure in this group.¹²

Dermatologists and primary care providers play an important role in prevention of skin cancer among adolescent and young adult SMM, particularly given that early tanning is a risk factor for the later development of cutaneous malignancy.¹³ The U.S. Preventive Service Task Force (USPSTF) recommends behavioral counseling about minimizing UV radiation exposure for children and young adults aged 6 months to 24 years with fair skin (grade B recommendation¹⁴ that this service should be offered to all youth, stronger than the grade C recommendation given for select populations of adults at risk for skin cancer).¹⁵ Indoor tanning among adolescent and young adult SMM has been found to have distinct underlying motivations and potential deterrents that can guide behavioral counseling. Specifically, SMM are motivated by appearance concerns (notably, darker ideal skin tone), mood/affect regulation, and perceived health benefits of indoor tanning,¹⁶⁻¹⁸ but may be deterred by the financial cost and risk of photoaging/skin cancer.¹⁷ Directly inquiring about and exploring these motivations for tanning among SMM may therefore allow pediatric dermatologists to

optimally tailor counseling about the importance of sun protection to individual patients. Nevertheless, further research is needed to better understand these disparities and inform targeted prevention efforts aimed at improving skin cancer risk behaviors among SMM in adolescence.^{13,19}

3 | SEXUALLY TRANSMITTED AND OTHER ACQUIRED INFECTIONS

Sexual behavior is related to, but distinct from, sexual orientation, as a subset of adolescents who identify as heterosexual also endorse having had a same-sex partner.²⁰ Eliciting sexual orientation, gender identity, and a detailed sexual history is therefore an important part of a dermatologic history in adolescents and young adults, particularly as it pertains to the risk of sexually transmitted infections (STIs). Obtaining a complete sexual history in a nonjudgmental manner using concrete terms ("Are you attracted to or do you have sex with women, men or both?" "Do you have oral, vaginal or anal sex?" "When was the last time you had sexual intercourse?") demonstrates sensitivity and guards against incorrect and offensive assumptions based on sexuality or gender.^{21,22} Although the clinical presentation and treatment of individual STIs are beyond the scope of this review, many comprehensive publications on the topic exist, including the management of STIs in adolescents.²³⁻²⁵

Human immunodeficiency virus (HIV) infections among adolescents aged 15-19 account for less than 5% of new HIV diagnoses in the United States annually. Of these, male-to-male transmission accounted for 92% of new diagnoses among adolescent males, with 83% identifying as Black or Latino.²⁶ The incidence of HIV and other STIs among transgender and other gender diverse or nonbinary adolescents is poorly understood because gender minority data are inconsistently collected and reported.²⁷ However, an estimated 8% of new HIV infections among transgender patients occur among those 13-19 years of age.²⁸

Daily oral tenofovir 300 mg and emtricitabine 200 mg (Truvada) for HIV pre-exposure prophylaxis (PrEP) were approved by the Food and Drug Administration (FDA) in 2012 and demonstrated greater than 90% efficacy for HIV prevention. In 2018, FDA approval was extended to adolescents.²⁹ PrEP carries a draft USPSTF Grade A recommendation ("high certainty that the net benefit is substantial") for use in patients at high risk for HIV acquisition, which includes men who have sex with men (MSM) who in the last 6 months had condomless anal intercourse, contracted a sexually transmitted infection with syphilis, gonorrhea or chlamydia, or had a serodiscordant sexual partner; transgender persons with these risk factors should also be considered for PrEP.³⁰ The Centers for Disease Control and Prevention (CDC) similarly recommends PrEP for MSM at high risk of HIV infection; both the USPSTF and the CDC caution, however, that the risks and benefits of PrEP therapy be carefully weighed before prescribing this therapy for adolescents.^{27,30} Specifically, trials evaluating the safety and efficacy of PrEP do not include subjects < 18 years of age, and although limited data suggest that PrEP is safe

to use in adolescents, there is concern for potential bone or other systemic toxicities when using PrEP in this age group.^{27,30} Moreover, local regulations regarding consent, disclosure, and confidentiality must be considered when prescribing PrEP to adolescent minors; we recommend referral to an adolescent medicine or pediatric infectious disease specialist with expertise in HIV-related health for those patients for whom PrEP may be considered.²⁷

Vaccination against the human papillomavirus (HPV) is recommended by the CDC for all pediatric patients starting at age 11 or 12 and as early as age 9, regardless of sexuality or gender identity.³¹ In the United States, the 9-valent formulation (Gardasil-9) is the only HPV vaccine available for use, and guidelines for frequency and duration of administration vary depending on age.³¹ Importantly, for MSM and transgender individuals who had not been previously vaccinated, routine vaccination is recommended through age 26.³¹ Unfortunately, rates of HPV vaccination among gay, lesbian, and bisexual teenagers/young adults are below their heterosexual counterparts.^{32,33} The potential benefit of HPV vaccination may be more substantial among those who engage in same-sex activity. Males and females who engage in same-sex sexual activity are, respectively, two and three times more likely than their heterosexual counterparts to have oral HPV infection.³⁴ HPV is also implicated in upwards of 90 percent of anal cancer cases, for which HIV-uninfected MSM have a 25-fold increased relative risk compared to men with only opposite-sex sexual partners.³⁵ Multiple studies indicate that a recommendation from a health care provider is an important factor in promoting initiation of the HPV vaccine series^{32,33}; this provides an actionable way for dermatologists who care for children and adolescents to improve rates of HPV vaccination and positively influence the incidence of genital warts and HPV-related malignancy.

National surveillance data show that the rate of reported STI cases (including chlamydia, gonorrhea, and primary and secondary syphilis) continues to increase among adolescents between 15 and 19 years of age.³⁶ However, the incidence of these STIs based on gender identity or sexuality/gender of sex partners is not reported. Including adults, MSM have elevated rates of syphilis, gonorrhea, chlamydia, lymphogranuloma venereum, and herpes simplex virus.^{36,37} MSM are also disproportionately diagnosed with gonococcal infections and primary and secondary syphilis when compared to those with only opposite-sex partners.³⁶ Outbreaks of meningococcal meningitis and community-acquired methicillin-resistant *Staphylococcus aureus* have also been reported among MSM.^{38,39} Including adults, STIs are generally less common among women who have sex with women. Nevertheless, it is important to recognize that female-to-female transmission of viral and bacterial STIs, including HPV and HIV, occurs with regularity.⁴⁰

4 | ACNE

Acne affects up to 85% of 12- to 25-year-olds and may herald the onset of puberty.⁴¹ Acne has been linked to negative psychosocial impacts in adolescents, such as poor self-esteem and higher levels of

depression and suicidal ideation.⁴² Importantly, though individuals with acne and those who identify as sexual minorities both have an increased risk of depression, sexual minority persons with acne have an exponential increase in their risk of suicidal ideation; specifically, greater than one-third of sexual minorities with acne endorse a history of depression or suicidality.⁴³ Although the treatment of these patients should follow standard acne therapy algorithms,⁴⁴ it is important for providers to be aware of this association so that patients can be properly screened and referred to mental health services as appropriate.⁴³

When caring specifically for transgender patients, dermatologists should be aware of the relationships between endogenous and exogenous hormones on acne onset and prognosis. For transgender youth experiencing gender dysphoria at the onset of endogenous puberty, pubertal suppression using gonadotropin-releasing hormone analogues may be indicated for families to explore gender identity and gender-affirming treatment goals.¹ By preventing the development of secondary sex characteristics—such as acne development, hair growth, sebum production, fat redistribution—pubertal suppression improves functioning and well-being in transgender youth and suppresses acne triggered by endogenous androgens.¹ However, acne may be triggered or worsened when gender-affirming testosterone therapy is initiated in transmasculine youth (individuals assigned female at birth based on natal sex who identify as male). Current guidelines recommend monitoring for adverse effects of hormone therapy, including acne, every 3 months in the first year of testosterone initiation;¹ however, no specific guidelines exist on how to best treat hormone-induced acne in transgender patients. Further research is required to understand the epidemiology and natural history of acne and to reduce its psychosocial impact in transgender youth.

For the majority of transgender patients who develop mild-to-moderate acne, the acne treatment ladder mirrors that in cisgender patients, with use of topical retinoids, benzoyl peroxide, topical antibiotics, topical dapsone, and/or oral antibiotics.⁴⁴ Estrogens and antiandrogens may be considered for acne in transfeminine patients (individuals assigned male at birth based on natal sex who identify as female), and combination estrogen-progestin oral contraceptive pills (COCP) can be used effectively for the treatment of acne in the transmasculine population as well. Combination estrogen-progestin oral contraceptive pills have an added benefit in that they are highly effective at suppressing menstruation in transmasculine individuals, as the relatively small amount of estrogen in COCP can suppress the patient's endogenous estrogen production and will not adversely affect exogenous testosterone use.⁴⁵ Patients should still be counseled on common, typically transient side effects, including breast tenderness, spotting, and water retention. Nevertheless, COCP use may be rejected by transmasculine patients who prefer to avoid extra hormone therapy (particularly if viewed as “female hormones”), and the choice not to use these agents should be honored.⁴⁵

For transgender patients with severe, nodular, or refractory acne, oral isotretinoin may be required, though specific concerns more relevant to the transgender population should be addressed when

prescribing this medication.⁴⁶ First, it is important to remember that depression, anxiety, suicidal ideation, and other mental health disorders are more common in transgender youth compared to cisgender youth.⁴⁷ While the link between isotretinoin use and mental health comorbidities and suicidality remains unclear,⁴⁸ transgender patients should be screened, monitored, and treated for mental health disorders when considering isotretinoin treatment. Nevertheless, it should also be noted that the treatment of moderate-to-severe acne using oral isotretinoin has the potential to decrease anxiety and depression and to improve quality of life.^{49,50} Second, limited evidence suggests that isotretinoin may delay wound healing for up to 6 to 12 months.⁵¹ Future plans for gender-affirming procedures must be discussed prior to isotretinoin initiation to avoid delays in surgical treatments. Third, pregnancy prevention must be thoroughly discussed for patients with a functional uterus or ovaries, which may include complete abstinence from penile-vaginal intercourse or consistent use of two forms of contraception. Common primary contraception for transgender persons with pregnancy potential includes hormonal or nonhormonal intrauterine devices, COCP, etonogestrel implant, or depot medroxyprogesterone injections. Progesterone-only pills are not acceptable for iPLEDGE, and testosterone is not an accepted method of birth control.^{45,52} Lastly, dermatologists must discuss that the U.S. iPLEDGE Risk Evaluation and Mitigation Strategy for isotretinoin currently requires patients to be registered and categorized based on sex assigned at birth,^{53,54} and some patients may find this unacceptable until a more gender-inclusive system is implemented. Humbly and effectively approaching this clinical dilemma with transgender patients has been extensively reviewed elsewhere,^{53,55} and pediatric dermatologists can assure their patients that iPLEDGE's gender binary registration system is recognized by multiple medical organizations as problematic and insensitive to the transgender community.^{56,57} Importantly, advocacy efforts are under way to revise this classification system to one that is gender neutral and based on reproductive potential.^{53,55} Despite these barriers, isotretinoin remains one of the most effective treatments for severe acne in transgender youth.⁵⁸ Dermatologists can help transgender patients and families navigate these barriers and obtain the treatment necessary to improve acne and its psychosocial impact.⁵⁹

5 | PROCEDURAL DERMATOLOGY AND THE CARE OF TRANSGENDER YOUTH

Transgender and gender diverse adolescents are subject to increased rates of verbal and physical violence and disproportionately suffer from anxiety, depression, suicidality, and substance abuse, while more frequently engaging in risky sexual behavior.¹ Furthermore, body dissatisfaction appears to play a significant role in gender dysphoria (the anxiety experienced when one's physical appearance is incongruent with internal gender identity) of transgender youth.^{59,60} Although a role for the dermatologist in the care of transgender adults has been established, particularly with respect to noninvasive

facial aesthetics and "passing" as one's identified gender, the role of the dermatologist in supporting transgender youth is no less vital.⁶¹⁻⁶³

Although dermatologists may not be the primary providers for most gender-affirming surgeries, they play an important role in hair removal, scar treatment, and other aesthetic services.⁶¹⁻⁶³ When considering the role of procedural dermatology in the management of the transgender child or adolescent, it is important to recognize whether a given procedure is reversible or nonreversible before proceeding. The ethics of performing surgical and cosmetic procedures was recently explored by Waldman, et al., who suggested that dermatologists should seek to support transgender patients in their pursuit of gender-affirming procedures.⁶⁴ However, consultation with a mental health specialist and consent from a parent when the patient is a minor are recommended before proceeding, and the authors recommend that nonreversible procedures, such as hair removal, be deferred until after adolescence.⁶⁴ Specifically, the decision to undergo any surgical or cosmetic procedure is best made after a thoughtful discussion of risks, benefits, goals, and expectations of therapy that includes the patient, their family (including parents/guardians and other caregivers), and the appropriate medical providers. Optimally this would occur in the context of a multidisciplinary gender clinic that includes an endocrinologist and an experienced mental health provider. In the absence of such a multidisciplinary clinic, a psychological evaluation should be performed by a mental health professional with expertise in childhood psychosocial development and assessment of gender dysphoria in adolescents, while also possessing the ability to address concomitant psychological concerns, including anxiety and depression.⁶⁵ It is important for proceduralists to recognize that a qualified mental health professional is the specialist most suited to determine whether a transgender adolescent is an appropriate candidate to undergo gender-affirming procedures; these procedures should not be performed without a complete psychosocial evaluation and confirmation that the intervention is developmentally appropriate.⁶⁵ The World Professional Association for Transgender Health Standards of Care outlines in further detail ways in which providers can safely and appropriately support transgender youth who seek gender-affirming physical interventions in a manner that recognizes their right to self-determination.⁶⁵

Hair removal is a central component of the transition process for transfeminine patients with residual facial hair growth. In addition, presurgical hair removal before vaginoplasty or phalloplasty ("bottom surgery") can prevent postoperative complications and minimize discomfort.⁶⁶ For both indications, hair removal is frequently managed with energy-based devices, including electrolysis and lasers. Although more time-consuming and painful, electrolysis remains a popular method of permanent hair removal.⁶⁷ In contrast, lasers, such as long-pulse alexandrite (755 nm), diode (810 nm) and Nd:Yag lasers (for darker skinned individuals), may be preferred in clinical practice as they are less painful and more effective and efficient in removing unwanted hair.^{67,68} Although lasers are generally associated with a higher cost per session, the overall decreased number of sessions required to achieve acceptable

outcomes may mitigate this cost.⁶⁷ A paucity of information exists about the efficacy of hair removal strategies in transgender youth, but research in hirsute women who suffer from polycystic ovarian syndrome has shown that laser hair reduction for unwanted facial hair improves both the severity of facial hair and depression and anxiety measures.^{68,69}

Lasers are also increasingly used in transgender individuals for the treatment of acne scars, with demonstrated success in the pediatric population.⁶⁶ Traditional ablative lasers can provide more successful results for deep "ice pick" and hypertrophic scars but are often more painful to the patient and feature a longer duration of posttreatment erythema.⁷⁰ In contrast, nonablative or fractional ablative lasers cause less pain and erythema and are often more beneficial for atrophic and shallow scars.^{71,72} In addition to laser therapy, surgical interventions including punch excision, subcision, microneedling, and topical corticosteroids may be used alone or as part of a combination treatment regimen.^{73,74}

Another complication of the transitioning process is postsurgical scarring resulting from gender-affirming surgeries.⁷⁵ In female-to-male chest reconstruction, for example, experienced surgeons often recommend improved chest contouring at the expense of larger scars.⁷⁵ Prevention of hypertrophic or keloidal scarring, including with proper wound care and massage, is a critical component in management.⁷⁶ If unsightly scar development nevertheless occurs, treatment may include the use of intralesional injections, such as with 5-fluorouracil and/or corticosteroids.⁷⁶ Lasers, both ablative and nonablative, have also been successfully used to reduce erythema and bulk.⁷⁷ Particularly in the case of hypertrophic scars and keloids, multimodal approaches focusing on both prevention and combination treatments are the therapy of choice.^{76,77} More research is needed about the role of early scar treatment in reducing the need for future scar revision surgeries.

6 | CONCLUSION

Although SGM youth are afflicted with many of the same dermatologic conditions as their heterosexual/cisgender counterparts, the associated causes or severity of these disorders may differ. Consequently, it is important for pediatric dermatologists to be aware of these associations and to tailor their care accordingly. Additionally, pediatric dermatologists play an important role in the care of transgender children, who benefit from expertise and support by dermatologists as they undergo hormonal and surgical treatment during the process of transitioning. Dermatologists who improve their ability to provide culturally humble and comprehensive care to SGM youth play a vital role in reducing health care disparities for this minority group.

CONFLICTS OF INTEREST

The authors of this manuscript report the following conflicts of interest: CK, MM, ML, AN, GMD, DIB, and MDB: none. HY: Dr Yeung has received honoraria from Syneos Health.

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ORCID

Markus D. Boos  <https://orcid.org/0000-0002-7179-5168>

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