

pregnancy, and there is evidence to support that there is an unmet contraceptive need in this community.^{6,8,9} Studies indicate that transgender people have experienced intended and unintended pregnancy after undergoing gender-affirming processes and treatments, and many desire future pregnancy and parenthood at different ages and stages of transition.^{3,7,10,11} For transgender and gender-diverse people who desire pregnancy, there is little clinical guidance for fertilization and prenatal, intrapartum, and postpartum care.

Given the dearth of perinatal guidance for transgender and gender-diverse people, we share our experience caring for a transgender man during his pregnancy. With the goal of creating an inclusive, compassionate, and equitable health care experience for him and his partner and other gender-diverse people, the team worked in collaboration with multiple stakeholders throughout the health care system to create new systems and transform existing systems to assure patient-centered care.

CASE

The patient is a 20-year-old healthy transgender man who initiated gender-affirming testosterone therapy with his primary care physician 5 months before pregnancy. Before starting testosterone therapy, he was clear that he desired the option of future pregnancy and had not undergone any other gender-affirming medical or surgical treatments. He was counseled on contraceptive and fertility-preservation options and the risks and benefits of testosterone therapy. His gender nonbinary partner was assigned male sex at birth and was living with human immunodeficiency virus (HIV). They received standard care for a serodifferent couple during pregnancy, including the use of preexposure prophylaxis for the patient as well as coordination and support for his partner to maintain a consistently undetectable HIV viral load to reduce the risk of sexual HIV transmission within the couple.

The patient's primary care physician sought advice on testosterone use in pregnancy through consultation with TransLine,¹² an expert clinical consultation service, which recommended stopping testosterone before fertilization given the potential androgenic effects of testosterone on a developing fetus. After consultation, the patient subsequently decided to discontinue testosterone therapy while attempting pregnancy. Two months after discontinuing testosterone therapy, the patient achieved pregnancy through penis-in-vagina intercourse. He was referred to San Francisco General Hospital's multidisciplinary perinatal HIV care team for prenatal care at 7 weeks of gestation.

During prenatal visits, the patient was asked preferred terminology for anatomic parts and functions (some transgender men prefer terms such as frontal pelvic opening) (Klein A, Golub SA. Sexual healthcare experiences and needs among a national sample of transgender men and non-binary individuals [abstract]. *Ann Behav Med* 2018;52:S614.)¹³; his

preference was medical terminology (eg, vagina, uterus). Individual health care provider and systems changes were undertaken to consistently use the patient's correct pronouns—from registration, to intake with medical assistants, to health care provider visits. We notified staff and health care providers of the patient's appropriate gender and pronouns by posting a "clinical alert" in the patient's electronic medical record (EMR) chart. This information was also communicated to the entire care team during preclinic huddles.

Trainings on culturally appropriate care provision for transgender patients were conducted with prenatal clinic and labor and delivery clinical staff. Ultrasonographers were trained to use gender-neutral language and techniques to assure an inclusive and welcoming experience during ultrasound examinations for this patient and all patients who follow. A social worker provided intensive case management and psychosocial support, including assisting in aligning the patient's identity documents with his affirmed gender, and confirmed with the hospital's birth certificate office that the patient and his partner could be listed as coparents, including their preferred names and gender identities. Attempts to change the patient's EMR to reflect his gender identity were unsuccessful as a result of technical limitations of distinguishing sex and gender within the EMR system and were further complicated by the inability of the EMR system to register an admission of a nonfemale patient to the labor and delivery floor.

At the end of the second trimester, the patient and his care team began proactively discussing future fertility, contraception, and options for resuming gender-affirming testosterone therapy postpartum. He expressed a desire to restart testosterone therapy once he finished chestfeeding (*chestfeeding* is common gender-neutral term used in the transgender community rather than *breastfeeding*) and was unsure whether or when he might desire pregnancy again. Given that testosterone therapy likely significantly reduces, but does not eliminate, the chance of pregnancy,¹⁴ he decided on a postpartum etonogestrel subcutaneous implant for contraception. Before delivery, the patient and his partner were offered a private tour of the labor and delivery unit as well as labor and chestfeeding preparation workshops by a health educator who had been trained in transgender-inclusive health education.

The patient had an uncomplicated labor and vaginal delivery after spontaneous onset of labor at 40 weeks of gestation. The healthy male newborn had no signs of androgenizing effects from in utero testosterone exposure. The patient's postpartum course was uneventful. He initiated successful chestfeeding immediately postpartum with support from lactation consultants and nursing staff. The patient and infant attended joint postpartum and well-child visits at a family-oriented primary care clinic affiliated with the county hospital with the family physician who also served as his prenatal care provider. At approximately 12 weeks postpartum, the patient discontinued chestfeeding and resumed testosterone therapy.

DISCUSSION

Many transgender and gender-diverse people have the capacity to become pregnant either through sexual

Table 1. Recommended Systems-Level and Interpersonal-Level Interventions for Trans-Inclusive Care In and Around Pregnancy

	Intervention	Audience
General principles	Train and monitor that all front desk staff ask patients' chosen names and respect and document pronouns	Clinic, hospital administration
	Train and evaluate that all medical assistant and nursing staff ask patients' chosen names and pronouns	Clinic, hospital administration
	Discuss with clinic and hospital administration the need for transgender and gender-diverse-inclusive sexual orientation and gender identity training and data collection for patient medical records	Clinic, hospital administration
	Encourage all health care providers to attend focused trainings on transgender and gender-diverse-inclusive health care and clinical practices	Medical providers
	Provide information and assistance to support changing and updating legal documents to reflect patient's gender identity ²²	Social workers, legal administrators (eg, department of motor vehicles, medical records personnel, durable power of attorney)
Improving the clinical environment	Work with clinic and hospital to implement welcoming environment to diverse patient populations (eg, display trans-inclusive signage and flyers in the clinic)	Clinic, hospital administration, building supervisor
	Discuss the use of gender-neutral language for spaces, consider names such as "sexual and reproductive health center" vs "women's health center" ²³	Clinic, hospital administration
	Offer all-gender restrooms in clinic and hospital	Clinic, hospital administration, building supervisor
Preconception	Regularly discuss patients' reproductive desires informed by a reproductive justice framework for full-spectrum contraception, abortion, and family-building	Medical providers
	Do not assume reproductive desires based on sexual orientation, gender identity, gender expression, sex assigned at birth, or family configuration	Medical providers
	When discussing hormone therapy, consider medication effects on fertility; ask about current and future fertility desires before initiating gender-affirming hormones or puberty-suppressing medications	Medical providers
	Providers and staff can consult TransLine: Transgender Medical Consultation Service (https://transline.zendesk.com/hc/en-us) or reference the growing number of clinical resources ^{4,24,25} for assistance with clinical questions regarding transgender health care	Medical providers, hospital and clinic staff
Pregnancy	Offer training to enhance environment sensitivity, equity, and inclusion for people of all genders among all staff in outpatient and inpatient settings who may encounter patients during pregnancy	All staff who may encounter patients in outpatient and inpatient settings (eg, health care providers for the prenatal patient and the newborn, nursing staff, clerical staff, birth certificate office staff, radiology technicians, janitorial staff, meal service staff)
	Train ultrasonographers regarding difference between sex and gender and use of gender-neutral language during ultrasound examinations for patient and fetus	Ultrasonographers and other ultrasound clinical staff
	Prepare staff to offer patients psychosocial support if they experience gender dysphoria due to pregnancy or change in hormone therapy (body changes, more difficulty passing, or being misgendered)	Social workers, hospital and clinic staff, mental and medical health providers
	Routinely ask about patient experiences navigating the health care system, with referral for necessary social work support	Social work, medical providers

(continued)

Table 1. Recommended Systems-Level and Interpersonal-Level Interventions for Trans-Inclusive Care In and Around Pregnancy (continued)

	Intervention	Audience
Approaching delivery	Offer tour of labor and delivery unit before delivery to orient to the space and ideally meet staff beforehand	Health educators, labor and delivery staff
	Offer to speak with birth certificate office to ensure that preferred titles and names are written on the birth certificate document (eg, able to list 2 fathers or people with nonbinary genders)	Birth certificate office
	Offer labor, birth preparation, and newborn care preparation workshops with workshop facilitators trained in transgender and gender-diverse inclusivity	Health educators
	Discuss contraception options using shared decision making, consider future fertility desires	Medical providers
Intrapartum	Refer to patient by correct pronouns during labor (eg, referring to “parental heart rate” instead of “maternal heart rate”)	Medical providers, labor and delivery staff
	Offer capacity for nongendered tracking of children on the labor and delivery suite and nursery (eg, baby Smith instead of baby boy Smith)	Labor and delivery staff, nursery providers and staff, lactation consultants
Postpartum	Offer support for informed newborn feeding, including options for chestfeeding and formula feeding ²⁶	Medical providers
	Ensure that hospital providers and staff are aware and supportive of patient’s desire to chestfeed and of safety of chestfeeding	Labor and delivery staff, nursery providers and staff, lactation consultants
	Counsel about contraception options in the context of future fertility desires and future plans for hormone therapy	Medical providers
	Counsel that progestin-based contraception, including the intrauterine device and implant, are not thought to interfere with masculinization (some may enhance androgen activity) and can be used in transmasculine patients	Medical providers
	Ensure social support in caring for a newborn and in postpartum recovery	Social workers, medical providers
	Counsel about anticipatory guidance regarding postpartum depression	Social workers, medical providers
	Discuss desire to restart hormone therapy, coordinate with desired timing and duration of chestfeeding	Medical providers

intercourse or assistive reproductive interventions.^{2,6} This case highlights the utility of engaging in discussions pertaining to reproductive autonomy and taking a comprehensive sexual history, including desire for pregnancy and pregnancy prevention, to guide appropriate medical interventions and motivate necessary system changes as part of primary care and supporting gender affirmation.

This case also highlights the need for supporting care providers to access and use information regarding the effect of testosterone on ability to conceive, maintain a healthy pregnancy, have healthy offspring, and chestfeed successfully. In a cross-sectional study of 41 transgender men who became pregnant, 61% reported using testosterone before becoming pregnant and 20% became pregnant while still amenorrheic from testosterone use.² Transgender and gender-diverse patients who

retain a uterus and ovaries may maintain reproductive capacity after initiating testosterone, and testosterone does not always reliably prevent unintended pregnancy.² There are no well-powered human studies examining the use of exogenous testosterone in pregnancy. It is generally theorized that testosterone may androgenize the fetus based on limited animal models.¹⁵ A small study of 147 cisgender women found that increases in levels of endogenous testosterone were negatively correlated to fetal length and weight.¹⁶ Lastly, very limited data suggest that increased levels of endogenous testosterone production have been associated with delayed and decreased milk production^{17,18}; though a case study found no adverse effects at 5 months of age on an infant who was breastfed by a mother who received a low-dose (100 mg) subcutaneous testosterone

pellet while breastfeeding.¹⁹ Currently there are insufficient safety data to recommend the use of testosterone during pregnancy and chestfeeding, and the drug is classified as pregnancy category X by the U.S. Food and Drug Administration.²⁰

Transgender and gender-diverse individuals routinely face stigma and discrimination navigating the health care system, including gender insensitivity, denial of services, and verbal abuse in medical visits.²¹ In a national survey, 23% of respondents reported avoiding seeking care owing to fear of mistreatment as a transgender person.²¹ Prenatal care for transgender men may be further complicated by cultural beliefs of pregnancy as a “woman-only” experience. Feelings of gender dysphoria may be pronounced in the absence of testosterone use during the fertilization and peripartum period.¹⁵ Practices to mitigate stigma and promote gender affirmation throughout the perinatal process include staff trainings; query for and use of appropriate names and pronouns in patient interactions and in all documentation, including the EMR and birth certificate; and gender-neutral, transgender-inclusive language for patient care spaces. Please refer to Table 1 for a summary of recommendations.

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PEER REVIEW HISTORY

Received April 17, 2019. Received in revised form July 3, 2019. Accepted July 18, 2019. Peer reviews and author correspondence are available at <http://links.lww.com/AOG/B552>.