BRIGHAM AND WOMEN'S HOSPITAL

Department of Rehabilitation Services
Physical Therapy

Standard of Care: Pelvic Floor Considerations in the Transgender/Gender Nonconforming Patient

ICD-10 Codes:

ICD-10 codes for use in documentation should follow examples provided in existing standards of care, which are listed below. For reference these standards of care are available through Ellucid at https://hospitalpolicies.ellucid.com/manuals/binder/637.

Urinary Incontinence

N39.41 Urge Incontinence
N39.3 Stress Incontinence, female/male
R35.0 Urinary frequency
R35.1 Nocturia
R30.0 Dysuria
R33.9 Retention of urine
R39.14 Incomplete bladder emptying
R27.8 Muscle incoordination
N81.89 Old laceration of pelvic muscles
M62.40 Spasm of muscle
N39.490 Overflow incontinence
N39.46 Mixed Incontinence
R32 Urinary Incontinence Unspecified
M62.50 Muscular disuse atrophy

Rectal Dysfunction

K59.02 Constipation (outlet dysfunction)
K59.4 Anal Spasm
K59.00 Constipation, unspecified
K62.89 Other Specified Diseases of Anus or Rectum
R15.9 Fecal Incontinence (full)
R15.0 Fecal Incontinence (incomplete emptying)
R15.1 Fecal Incontinence (smearing)
R15.2 Fecal Incontinence (fecal urgency)
N81.84 Pelvic muscle wasting
N81.6 Rectocele
M62.8 Muscle spasm

Chronic Pelvic Pain Syndromes (Female and Male)

R10.2 Pelvic and perineal pain
M25.559 Pain in unspecified hip
N94.1 Dyspareunia
F52.6 Dyspareunia not due to a substance or known physiological condition
N94.2 Vaginismus
N30.10 Interstitial cystitis without hematuria
N30.11 Interstitial cystitis with hematuria
M99.05 Segmental and somatic dysfunction of pelvic region
K62.89 Other specified diseases or anus and rectum
K59.4 Anal spasm
M53.3 Sacrococcygeal disorders, not elsewhere classified
R27.8 Other lack of coordination

Pelvic Girdle Pain

M25.559 Pain in unspecified hip
M46.1 Sacroiliitis, not elsewhere classified
M54.30 Sciatica, unspecified side
S33.9XXA Sprain of unspecified parts of lumbar spine and pelvis, initial encounter

Symphysis Pubic Separation

O26.72 Subluxation of symphysis (pubis) in childbirth
O26.719 Subluxation of symphysis (pubis) in pregnancy, unspecified trimester
S33.4 Traumatic rupture of symphysis pubis
O71.6 Obstetric damage to pelvic joints and ligaments

Case Type/Diagnosis:

The purpose of this standard of care is to provide guidelines for the language and knowledge base required during the evaluation and treatment of patients who identify as transgender and/or gender nonconforming (TGNC) within a healthcare setting. The vernacular and education provided in this standard can serve as a guide for pelvic floor physical therapists when working with TGNC patients, regardless of diagnosis or reason for referral.

Transgender and gender nonconforming (GNC) individuals are a minority group who undoubtedly have faced and continue to face significant barriers to equal and high quality healthcare compared to cisgender individuals. Transgender and GNC individuals have existed throughout human history, but society has been very slow to acknowledge these individuals and put protections in place to treat them as equals. Because of this, TGNC people have faced barriers, erasure, and gross discrimination throughout the healthcare system. Discrimination in healthcare can range from episodes of humiliation, degradation, and dismissal directed from providers and support staff to refusal of services from insurance companies. This has led many TGNC people to be leery of the healthcare system and delay getting care even for health issues unrelated to their gender identity. In a 2011 study with over 6,000 transgender Americans, 33% had either delayed or not sought preventive care due to prior experiences of health care discrimination, 28% postponed necessary health care when sick or injured, and 19% of those surveyed reported being refused health care due to their transgender or gender-nonconforming indentity.[1] This is not only a public health problem but a human rights problem. In 2010, Section 1557 of The Patient Protection and Affordable Care Act banned discrimination based on sex, gender identity, or sex stereotyping in the healthcare setting and banned categorical coverage exclusions for gender-affirming care.[2] This has led to increased awareness and coverage of gender-affirming services and procedures from healthcare providers and insurers.

Indications for Treatment[3]:

Being a TGNC person is not a pathologic condition and thus is not an indication in itself for any specific type of treatment. A TGNC patient needs to meet criteria for treatment as do cisgender patients. This is true for patients with or without a history of gender-affirmation surgery (formerly known as “sex reassignment surgery”). Existing standards of care are listed above based on dysfunction present.

Specific to TGNC patients who pursue gender-affirming surgery, physical therapy can be beneficial for individuals both pre and post-operatively. Pre-operative therapy may be indicated to address impairments that would limit the outcome of the surgery, delay healing, or impede upon functional, pain-free return to ADLs/IADLs. Intra-operative positioning can be addressed prior to surgery to ensure that the patient is able to maintain the required surgical position for a prolonged period of time, as some gender-affirming procedures can last eight or more hours.[3] As with cisgender patients, physical therapy can be utilized post-operatively to optimize surgical outcomes and to minimize residual dysfunction.[4–6] Few studies have investigated pelvic floor outcomes after gender-affirming surgeries, however the need for further research is well established.[4–7]

*The phrase "sex reassignment" is outdated and has been largely replaced by "gender affirmation" or "gender confirmation". The acronym "SRS" (sex reassignment surgery) may be seen in documentation and has largely been replaced by "GAS" or "GCS", for gender affirmation surgery or gender confirmation surgery, respectively.[8] Some patients may prefer older language, see comments under "Language" section and **Appendix 1** for mirroring patient terminology.

Contraindications/Precautions for Treatment[9]:

Contraindications for internal vaginal/rectal exam:

A. Active infections of the vagina, bladder, or rectum
B. Open skin lesion
C. High-risk pregnancy
D. Absence of patient consent
E. Impaired cognitive understanding of the exam
F. Absence of previous pelvic exam by an MD (pediatric population)

Precautions for internal vaginal/rectal exam:

A. Severe atrophic vaginitis
B. Severe pelvic pain
C. History of sexual abuse

Precautions for internal vaginal/rectal exam:

A. Pregnancy
B. Immediately post-partum before 6-8 weeks
C. Immediately post-vaginal, prostate, pelvic, or rectal surgery before 6-8 weeks
D. Immediately post-pelvic radiation treatment

Language:

Language matters. If there is any precaution for treatment of a TGNC patient it is to be aware of language, both verbal and non-verbal, always. The term "transgender" is an umbrella term to describe people whose gender identity does not match their sex assigned at birth. Most often, transgender individuals are seeking healthcare for the same reasons as cisgender individuals. Cisgender is a term for individuals whose gender identity matches their sex assigned at birth. Gender identity describes the amount of "maleness" or "femaleness" a person feels internally. Some transgender individuals decide to transition their outward appearance, known as gender expression, to match their gender identity. This may or may not include gender-affirming medical interventions such as hormone therapy and surgery. This could also involve legal name changes and gender marker changes on appropriate documentation. Individuals who identify as gender nonconforming (also known as gender nonbinary, gender diverse, gender expansive) may not feel that the designations of "male" or "female" resonate with them. Their gender expression is fluid and lives somewhere on the spectrum between "female" and "male" or outside of this binary altogether. As such, GNC people do not adhere to current societal standards of what it means to be "male" or "female" regardless of their sex assigned at birth. Within this population are people who experience differences or variability of sex development (DSD or VSD), also referred to as intersex.[8] Not all people who experience DSD identify as TGNC, however surgical procedures performed, when indicated and desired by the patient, are included in this standard of care. Some people who experience DSD may choose to keep their genitalia and/or secondary sex characteristics dictated by natal hormones and not pursue medical intervention. Please see **Appendix 1** for more essential vocabulary required when working with these populations.

As with all patients, use of language can and will make a lasting impression. Review appropriate medical records for use of language, keeping in mind that language changes may not be present in available records if relevant questions have not been asked by previous practitioners or if a patient was not comfortable disclosing related information at that time. If a patient uses unfamiliar language it is best to clarify with the patient directly, as language is always changing. However, one should do their best to be prepared with the knowledge needed before an evaluation. Always mirror patient language and never assume that patients use anatomical terms to refer to their body parts.[3,10,11] This can be a conversation that is initiated with the patient on evaluation. Ask what pronouns to use (and share your own), if they differ from pronouns that should be used in documentation, and any other gender identity factors that should be discussed as they relate to the specific scope of care. Document accordingly with permission from the patient.[12]

Trauma-Informed Care:

Trauma-informed care (TIC) provides a framework for thinking about a patient's stress reaction, both immediate and delayed, to allow providers to create a feeling of safety for their patient and avoid re-traumatization. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma as "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being."[13] In the landmark Center for Disease Control (CDC)-Kaiser Permanente Adverse Childhood Experiences (ACEs) Study from 1995-1997, over 17,000 Kaiser Permanente patients were assessed for adverse childhood experiences (ACE) such as neglect, abuse, and domestic violence. This information was gathered along with participant's current health status, risk behaviors, and disease. The CDC-Kaiser study found that >50% of participants had experienced at least one adverse childhood experience (ACE) and 25% had experienced at least two.[14] In a similar study from 2013, the Philadelphia Urban ACE study, which included a more racially and economically diverse population, >80% experienced at least 1 ACE and about 40% had 4 or more ACEs.[15] It should be noted that trauma does not just occur with only overt childhood traumas but can also occur with covert childhood trauma, such as being told you cannot express your emotions, having a parent who cannot regulate emotions, and having a parent focused on appearance. Also, trauma can occur at any stage in life, not just childhood.[13]

The degree to which that trauma impacts an individual varies greatly. Not everyone who has experienced a trauma is traumatized by the experience, and not everyone who has survived a traumatic experience will disclose it. In fact, most will not. Traumatic experiences may affect a person's mental health, physical health, learning ability, pain levels, and can have medical sequelae. Being aware of trauma/stress responses can help foster greater empathy to allow the practitioner to alter their practice, including verbal/non-verbal communication, evaluation, examination, interventions, and goal setting, to avoid inadvertent re-traumatization. Becoming familiar with immediate and delayed emotional, physical, cognitive, behavioral, and existential reactions to stress can help with this.[13],[16] See **Appendix 2** for stress reactions.[16]

The Substance Abuse and Mental Health Services Administration has identified six key principles of a trauma-informed approach.[13] These are guiding principles for all patient interactions, regardless of gender identity. Developing TIC skills means constantly reexamining how one uses these principles with every patient.

Six Key Principles of a TIC Approach[13]:

1. Safety
    a. Strive to create physical, emotional, and spatial safety. Allow the patient to decide where to sit. Give options for treatment positions. Drape appropriately. Ask before touching.
2. Trustworthiness and Transparency
    a. Transparency in decision-making is one factor that can enhance a patient's trust and strengthen the therapeutic relationship.
3. Peer Support
    a. Be knowledgeable about where patients can seek support in the community through organizations or support groups. Peer support can help to promote recovery and healing.
4. Collaboration and Mutuality
    a. Give options and allow for shared decision-making to help level the power dynamic between therapist and patient.
        i. Give the patient options and allow them to choose their preferences. This helps to give the patient agency, enhance trust in the practitioner, and have some power in the patient/client relationship.
        ii. Help patient's problem-solve solutions to barriers to physical therapy that may arise due to internal (e.g. avoidance behavior) or external (e.g. lack of transportation) factors.
5. Empowerment, Voice, and Choice
    a. "Organizations understand the importance of power differentials and ways in which clients, historically, have been diminished in voice and choice and are often recipients of coercive treatment"
    b. Always express that it is always acceptable at any time to say "no." Remind patients that they have a choice and a voice.
6. Cultural, Historical, and Gender Issues
    a. Various cultures and subcultures view and respond to trauma differently. When it comes to trauma responses, there is no one-size-fits-all approach. Developing empathy and listening skills can help the provider identify each person's unique need
    b. Work to actively overcome cultural stereotypes and biases surrounding race, age, gender, socioeconomic status, etc.
    c. Consider the role of historical trauma
        i. Historical trauma is defined as "a complex and collective trauma experienced over time and across generations by a group of people who share an identity, affiliation, or circumstance."[17]
        ii. It is not the clinician's role to decide if an event was "traumatic enough" to warrant a response or reaction.

Knowledge of signs of dissociation is crucial. Dissociation happens to all humans regardless of trauma history or gender identity. Dissociation is defined as a "disruption of and/or discontinuity in the normal, subjective integration of one or more aspects of psychological functioning, including – but not limited to – memory, identity, consciousness, perception, and motor control."[18] See **Table 1** below for the signs of dissociation. Examples would include "spacing out" in a car, arriving at the designated destination without knowledge of how one got there. Dissociation can occur at any time and with any patient. Trauma survivors can subconsciously use dissociation as a coping mechanism. This coping mechanism, which helped the patient potentially survive their trauma, can be triggered in therapy by seemingly benign acts (e.g. touching a particular area of the body without consent first, using anatomical language without consent, display of anatomically correct models or pictures). Every patient has different triggers. Triggers can include sights, sounds, smells, touch, times of day, season, and holidays. Awareness of dissociation signs (**Table 1**) and considerations to avoid triggers (**Table 2**) can help the healthcare professional reevaluate their interaction with patients and identify unique triggers, if applicable.

Table 1[a]
Potential Signs of Dissociation
Fixed or "glazed" eyes
Sudden flattening of affect
Long periods of silence
Monotonous voice
Stereotyped movements
Responses not congruent with the present context or situation
Excessive intellectualization

Adapted from *Therapy for Adults Molested as Children: Beyond Survival*[19]

Table 2[a]
Considerations for Avoiding Triggers Get consent • Ask permission every time before touching someone, regardless of where that touch is • Ask permission to ask sensitive questions Respect boundaries • Boundaries may be emotional, physical, mental boundaries • Do not probe to try to get the details of a person's trauma history. Let this be a decision made by the patient if/when they trust the provider enough to disclose. Read body language • The body may say what the mind cannot. Patients may say they are okay and be wincing, flinching, or dissociating. The provider should reconsider what they are doing, how they are doing it, why they are doing it, and where it is being formed on the patient to determine if there are alternatives examination or treatment strategies that could yield the same outcome with less subconscious reactivity. Ask open ended questions • Asking open ended questions gives a patient a choice about what they want, when, and how they want to communicate information

Adapted from *Understanding the Impact of Trauma*[16]

Evaluation:

Medical History:

Review the patient's medical, surgical, and social history in the hospital's computerized medical record (CMR). This should include any diagnostic imaging, tests, operative reports, and precautions available. Review the medical history as one would for cisgender patients with some additional considerations, described below.

It is important to acknowledge that not all TGNC patients will have the same medical history, as gender identities are validated in different ways for different people. It is also important to have candid conversations about relevant medical history.

Pregnancy:

Transgender and gender nonconforming people can become pregnant even when taking "masculinizing" hormones if the necessary reproductive organs are present. It is important to remember that TGNC people may participate in vaginal penetration and/or use other means to conceive like embryo or oocyte cryopreservation, if available. Testosterone does not always lead to complete ovulation suppression and cannot successfully be used as a contraceptive, even when amenorrhea is present.[10,11] A 2006 Scandinavian study established the link between testosterone levels in pregnant parents and low birth weight.[20] Although the external validity of this study is limited due to the inclusion of only White cisgender women, it is widely recommended that testosterone therapy is

discontinued during pregnancy.[10,11,21,22] In a 2014 cross-sectional study of 41 transmasculine participants, 61% reported using testosterone prior to successful pregnancy efforts. Of testosterone users 24% experienced an unexpected pregnancy while still taking testosterone and 72% conceived within six months of discontinuing testosterone dosing.[21] Several studies have been performed regarding the impact of long term androgen use on fertility, however the results are mixed and the sample sizes are typically small.[22]

More research is now being performed to gather information on the experiences of TGNC people who conceive and what is needed by healthcare practitioners to give competent care.[23] It is important to acknowledge that TGNC people who conceive largely experience institutional erasure and transphobia within the healthcare system, as conception, pregnancy, and postpartum care is typically considered relevant to only cisgender women. This highlights the need for inclusive intake forms, gender-neutral bathrooms with changing stations, and TGNC visibility within the physical clinic space.[21,23] Despite the growing presence of TGNC parents, more research needs to be completed in particular for Black TGNC parents, as there is well-established evidence of poorer birth outcomes in Black cisgender women due to experiences of institutionalized and systemic racism.[24] This would likely carry over to TGNC parents with consideration of other stress factors experienced in the TGNC community as well.

As with the cisgender community, pelvic floor physical therapy may be indicated for antepartum concerns. Common concerns include pelvic pain, low back pain, hip pain, urinary urgency, frequency, and urinary incontinence, however this is not an exhaustive list. Written consent needs to be obtained from the patient's obstetrician before performing an intravaginal pelvic floor assessment, if indicated, following precautions listed above. Some patients may be willing to receive intravaginal assessment and treatment while others may not for a variety of reasons. For those who are not candidates for vaginal assessment or treatment, appropriate rectal assessment and treatment may be offered, if indicated.[25]

Postpartum physical therapy may also be indicated for pelvic floor dysfunction or blocked milk ducts. For the latter, it has been determined that elevated testosterone levels can suppress milk production, though low doses do not typically present in milk supply.[26] If milk supply is an issue, patients should be counseled by an experienced obstetrician, lactation consultant, or midwife. For TGNC parents who do plan to nurse, this is typically possible even if chest reconstruction (sometimes referred to as "top surgery") procedures have been performed. Patients who have undergone chest reconstruction typically require assistance from an external pump.[21] It is again important to discuss preferred

language when discussing anatomy and, if generic evaluation forms or patient education are used, confirm that language is correct before offering these materials to the patient. Indications for physical therapy treatment of blocked milk ducts can be found in Ellucid at https://hospitalpolicies.ellucid.com/documents/view/18951/active/.

See **Appendix 3** for reproduction considerations for medical and surgical transition interventions.[23,27]

Surgical History:
Consider any pelvic/abdominal surgeries or procedure that would impact bowel/bladder/sexual function that are typically performed on cisgender patients.

Specific gender-affirming surgical techniques will differ depending on the surgeon(s) and the location. As always, review the surgical report and contact the surgical team for preferred protocols and guidelines. At the time of this writing Brigham and Women's Hospital does not have preferred protocols following gender-affirming surgery. See below for a list of common gender-affirming procedures.

Gender-Affirming Surgeries[3,28]**:**

Neovaginoplasty (also known as vaginoplasty)

- Intestinal (rectosigmoid/ileal), peritoneal, or penile inversion to create neovaginal canal that will require rigorous long-term dilation and douching post-operatively
- Creation of urethral neomeatus, neoclitoris
- Requires close adherence to postoperative dilator protocol
- Option to pursue genital remodeling only, which creates "typical" vulva externally. Involves penectomy, orchiectomy, urethroplasty, labiaplasty, clitoroplasty, no vaginal canal created ("noninvasive")

Orchiectomy

- Removal of testicles (radical or simple)

Buttocks and/or hip augmentation (liposculpture)

Scrotoplasty

- Creation of scrotum using dissected labia majora tissue
- Testicular implants typically inserted

Metoidioplasty

- Creation of a neophallus using testosterone-induced clitoral lengthening and surgical release from clitoral hood and suspensory ligament
- Option for urethral lengthening to allow for standing micturition
- Option for scrotoplasty
- Frequently performed with hysterectomy
- Vaginal dilator training is sometimes indicated if neourethra creates anterior vaginal wall restriction
- Varying degrees of metoidioplasty (simple, ring, full, centurion), see protocols from referring surgeon to confirm timeline of procedures performed within specific metoidioplasty

Vaginectomy

- The surgical removal of all or part of the vagina

Monsplasty

- Can be used to assist with lifting the scrotum

Phalloplasty

- Creation of a functional and cosmetically acceptable penis using skin grafting
- May be single or multi-staged depending on patient candidacy and desired outcomes
- Includes scrotoplasty, if desired
- Multistage procedure will also typically include hysterectomy, vaginectomy, urethroplasty/lengthening (which later requires additional grafting and tubularization), scrotoplasty with testicular implants, glans construction, penile prosthesis for rigidity (if desired), and additional procedure for cosmetic purposes (process takes 1-2 years to complete)
- Grafts involve significant amount of skin (with and without preserved blood vessels, nerve structures, and bone) and donor sites to assist with graft site healing, significant scarring. Donor sites may include the radial forearm, latissimus dorsi, the anterolateral thigh, suprapubic and abdominal area, fibular flap, buttocks, or a combination of these areas.
- Lower urinary tract symptoms are common after phalloplasty including post-void dribbling, weakened stream, urinary incontinence, and dysuria.[29]
- Long and detailed post-surgical protocols, typically many precautions

For details of procedures mentioned above please contact referring surgeon. See **Appendix 4** for local institutions performing gender-affirming surgeries.

History of Present Illness:

Interview the patient to review medical history and any relevant information. If the patient is unable to give a full history interview the patient's legal guardian, custodian, or social support that may be present. A thorough history may include previous physical therapy interventions, rectal, pelvic, abdominal surgeries or history of cancer and cancer treatment, obstetric history, and other relevant neurological or musculoskeletal issues that may affect the patient's current complaint(s). For questions regarding pertinent history taking see appropriate standards of care in Ellucid listed on the first two pages of this standard of care.

Social History:

Review the patient's home, work, recreational, and social situation. Ask the patient about their current level of physical activity. A thorough assessment of the patient's social life stressors is helpful to assess whether psychosocial factors may play a larger role in their condition.

Screen for patient safety questions. When screening for patient safety keep in mind that TGNC people are more likely to experience violence in the community and at home. Out of the 27,715 respondents of the 2015 U.S. Transgender Survey Report 46% experienced verbal harassment in the last year. More than half (54%) experienced some form of intimate partner violence and 47% experienced sexual violence. Note that these statistics are higher in Black communities and non-Black people of color (NBPOC).[30] This is not to say that practitioners should assume all TGNC patients have experienced trauma, however the physical therapist should always screen and offer resources as needed, as is required for all patients. For related information refer to "Trauma Informed Care" section above. See **Appendix 5** for local and national safety resources.

Another important part of social history is social transitioning - changing one's gender expression to match gender identity within smaller groups (like family and/or friend units) or in public. As pelvic floor physical therapists this is important to discuss, when relevant, because of the potential implications on pelvic and abdominal structures. Consider the following:

A. **Tucking**[31–33]**:** The practice of moving the penis and scrotum to achieve a flattened appearance. This can be performed by moving the testicles into the inguinal canal and the penis between the legs with the glans pointing posteriorly or moving the testicles superior to the base of the penile shaft before moving the penis between the legs (Figure A). This may or may not be secured with tape and/or a tight-fitting garment such as layered underwear or a gaff, a garment made for tucking purposes. Taping is not generally recommended when tucking, but, if necessary, athletic tape is preferred. If a patient is tucking, it is important to discuss appropriate practices and, if desired, resources available for instructions and descriptions of garments available. See **Appendix 6** for patient and provider resources. It is not uncommon for people who

tuck to restrict fluid intake to avoid having to urinate, as they would have to untuck and repeat the process over again. The prolonged compression of the urethral meatus and proximity to the anus when tucked can also lead to irritation and/or infection. Due to the nature of tucking, mechanical damage to soft tissue can also occur.[33] This would be important to include in your history taking when discussing pelvic pain to rule out contribution.

a. Consider the following for harm reduction:
    i. If pain is present and other contributors have been ruled out, tucking for a shorter period of time, avoiding tucking at night, and/or loosening tape or garments may improve discomfort
    ii. Review proper bladder habits as appropriate

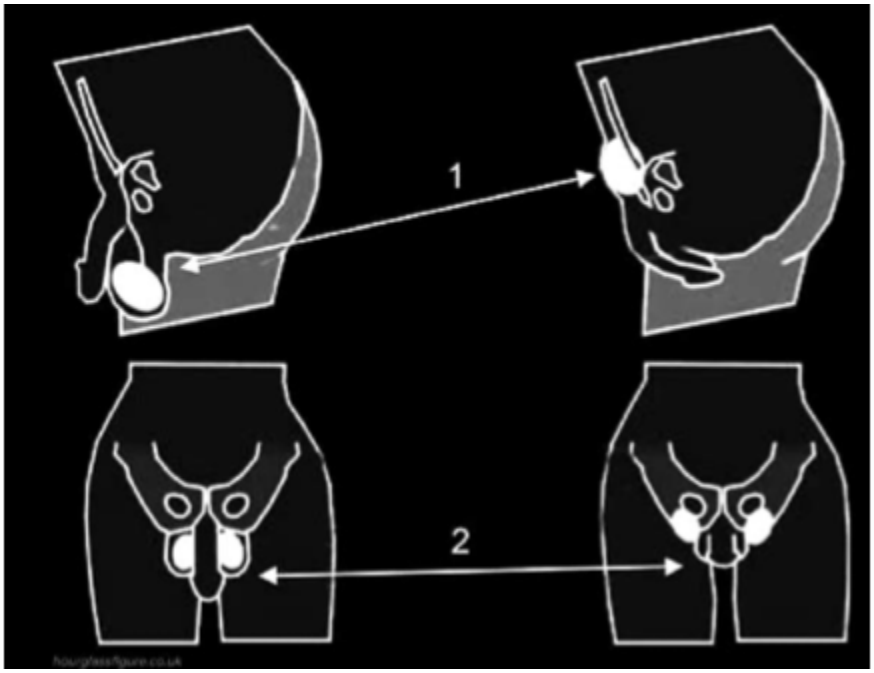

FIGURE A from Ciesla et al.[3]

B. Packing[3]: Creating the appearance of a bulge in the genital area using a prosthesis, sock, or other material. Packers can sit against the skin without assistance or be attached using surgical glue. Long term use of even a high-quality prosthesis directly on skin can create breakdown due to moisture build-up. Stand-to-pee (STP) devices are also available to allow the user to urinate while standing. Many STP devices double as a packer and are worn for several hours at a time. Some devices can also be worn for penetrative intercourse, so the wearer may be removing the device only for cleaning purposes. Hygiene is critical with any of these devices. Most gendered bathrooms do not allow for the user to remove STPs to be cleaned after urinating. It is important to discuss potential packing to rule out contributions to skin breakdown and to better guide appropriate patients with reported urinary symptoms, if a packer itself

or a wearing schedule could contribute. Patients who wear packers may wish to keep their prosthesis attached during examinations.

C. **Binding**[3,34]**:** Flattening breast tissue to create the appearance of a flatter chest. The types of materials and methods of binding vary depending on chest size and body type. Binders are created specifically for this purpose and vary in shape and coverage. Patients who bind should be comfortable with appropriate binding practices (avoiding ACE bandages, duct tape) including proper wearing schedules. Binding is important for pelvic floor physical therapists to consider due to potential impact on abdominal and pelvic structures. A 2016 cross-sectional study gathered relevant data on the health impacts of chest binding among TGNC adults and found that greater than 97% of participants reported at least one negative outcome attributed to chest binding. Many outcomes would fall under the pelvic health physical therapist's scope of care, including but not limited to the following: abdominal pain (14.5%), muscle wasting (5.4%), GI symptoms (17.7%), and respiratory symptoms (50.7%). Safe binding practices could positively impact these symptoms and their potential role in pelvic and abdominal health.[34, 36]

    a. Consider the following for harm reduction[35]:
        - Limit binding to no more than 8-12 hours a day or try to take regular days off from binding.
        - Never sleep with a binder or compression garment on.
        - Avoid binding with duct tape, plastic wrap, or Ace bandages.
        - Avoid using specialized compression garments (binders or compression vests) that are too small. Breathing should not be impaired.
        - When exercising, try to use a binding method that is less constrictive than what one would wear on a day-to-day basis to allow for better breathing and less overheating.
        - Make sure skin is completely dry before putting on a binder to avoid skin infections and other dermatological issues. Try to use a binder or compression garment that is made of breathable fabric.

See **Appendix 7** for patient resources.

Note[3,10]**:** Patients incorrectly using practices like the ones described above typically does not justify the clinician to advise discontinuing said practice. Providers can direct patients to the appropriate resources and educate them on implications of certain practices on pelvic and abdominal health, however these practices are considered parts of gender expression and have an enormous impact on quality of life and mental/emotional health. These practices have been recognized as sufficient treatment for some individuals with gender dysphoria by The World Professional Association for Transgender Health (WPATH) and are considered a relevant part of interdisciplinary treatment plans.[10] Urging a patient to discontinue one of these practices for the sake of non-life threatening

impairments can have an enormous impact on the mental health of the patient. This should be considered before any recommendations are made.

Medications:
Medications may be prescribed for treatment of the symptoms the patient is reporting. Review medication lists in full and be aware of how particular medications may impact bowel, bladder, and/or sexual function.

Gender-affirming hormone therapy:
Some TGNC patients elect to receive hormone therapy to produce secondary sex characteristics for gender affirming purposes. To familiarize yourself with typical changes relevant to pelvic health practitioners refer to the following table:

Table 3[a]

	Effects	**Expected Onset/Maximum Effect**
"Masculinizing" Hormones* (transdermal, intramuscular, buccal, implantable)	Cessation of menses (variable)	2-6 months/NA
	Clitoral enlargement	3-6 months/1-2 years
	Vaginal atrophy	3-6 months/1-2 years
	Increased libido	Unknown
	Testosterone is the most common "masculinizing" hormone used in various forms. These include testosterone undecenoate, cypionate, and enanthate delivered through various mediums. Progestins may also be used in a regimen initially to assist with cessation of menses before testosterone levels are adequate. Gonadotropin releasing hormone (GnRH) agonists may be used for the same desired effects of progestins. Tissue quality may change after hormone use. It has been determined that testosterone-induced vaginal atrophy is similar to post-menopausal changes in cisgender women, impacting bladder, bowel, and sexual function as documented in the cisgender female population.[11] Local estrogen may be offered to these patients as indicated due to the lack of evidence that local estrogen use interferes with systemic testosterone effects. However, some TGNC patients may not be willing to introduce estrogen for	

	various reasons. Candidacy based on estrogen-receptive cancer history is the same as with cisgender women. [10,11]	
"Feminizing" Hormones* (sublingual, transdermal, intramuscular)	Decreased libido	1-3 months/1-2 years
	Decreased spontaneous erections	1-3 months/3-6 months
	Male sexual dysfunction	Variable/Variable
	Decreased testicular volume	3-6 months/2-3 years
	Increased urinary frequency (spironolactone)	Immediate
	Higher doses of estrogen have been linked to venous thromboembolism. For this reason, "feminizing" hormone regimens typically include both estrogen and an anti-androgen to suppress testosterone and allow for lower doses of estrogen. Common anti-androgens include spironolactone, gonadotropin releasing hormone (GnRH) agonists, cyproterone (not FDA approved), finasteride, and dutasteride. Progestins (other than cyproterone) are occasionally used but have not been found to significantly contribute to testosterone suppression or development of secondary sex characteristics.	
Puberty Suppressing Hormones (aka "Blockers")	Pubertal "blockers" may be used in children to stop pubertal changes. Timing of initiating blockers is based on certain criteria. Blockers typically include gonadotropin releasing hormone (GnRH) analogues to suppress progression of secondary sex characteristics. Other blockers used include: progestins and spironolactone to suppress the effects of androgens in individuals who are not using GnRH analogues. Oral contraceptives are also used to suppress menses when indicated. Pubertal suppression changes are completely reversible if blockers are discontinued. Decisions are then made after several years on blockers whether to proceed with the above "masculinizing" or "feminizing" hormone* therapy or to allow puberty to occur based on natal hormone presence.	

Adapted from WPATH Standards of Care[10]

*Quotations are used to indicate that these hormones are typically considered within a gender binary - many TGNC people use hormone therapy to achieve an aesthetic that is not what is considered traditionally male or female. Keep in mind that not all patients who pursue hormone therapy are seeking to "blend" with the cisgender community. Some patients are seeking an aesthetic that differs from what Western society deems "male" or "female". As with any patient, it is important not to comment on physical appearance at any stage of one's transition - the changes discussed in this standard of care are mentioned only for clinical context and examination purposes.

Examination: (Physical/Cognitive/Tests and Measures/Other)
This section is intended to capture the most commonly used assessment tools for this case type/diagnosis. It is not intended to be either inclusive or exclusive of assessment tools.

Physical examination will largely depend on the patient's chief complaint. See appropriate standards of care where indicated. All standards of care can be accessed through Ellucid. Below are considerations that apply directly to TGNC patients who have pursued hormone therapy and/or surgical gender-affirming procedures. This is not an exhaustive list and caters specifically to pelvic floor examinations.

Scar Assessment:
Scar formation will depend on the surgical procedure performed and surgeon preference. Scar and surrounding tissue mobility should only be performed once a member of the surgical team has provided clearance. Contact referring surgeon for protocols and preferences. Familiarize yourself with typical scar locations for gender-affirming surgeries (**Appendix 8**). Note that research is divided on the efficacy of scar mobilization.[37] In addition to a thorough physical examination, patients would benefit from basic education on scar mobility and desensitization. Due to the nature of many gender-affirming procedures, abdominal, perineal, periurethral, and levator ani scarring is likely.[3,28] Address this scarring as indicated using principles of desensitization and tissue mobility. Dilator training may be used as one way to improve scar tissue mobility and sensitization per appropriate protocols. Manual therapy of connective tissue should be confirmed via associated protocols and/or surgeon approval to protect microsurgery sites.[28] Contact referring surgeon to confirm preferred protocols following gender-affirming procedures.

External Pelvic Examination:
Please see existing standards of care listed on the first two pages of this document for appropriate techniques when performing an external pelvic examination. Not all TGNC patients will opt to undergo physical augmentation utilizing hormone therapy and/or surgery. For expected genital changes based on hormone therapy, please see the changes described in **Table 3** above. For patients who have undergone surgical procedures indicate the type of procedure and structures affected. Document and educate patients on potential contributions to current complaints, as applicable.

Internal Pelvic Examination[11]:
Follow ***Hand Hygiene Protocol*** (available at https://hospitalpolicies.ellucid.com/documents/view/2581) before, during, and after completion of an internal pelvic floor assessment**.** Refer to appropriate existing standards of care in Ellucid for specific examination techniques. If a vaginal assessment is indicated in a patient with a neovagina, the neovaginal canal will typically be angled more posterior than a natal vaginal canal, as the neovaginal cuff will be attached to varying posterior structures depending on surgical procedure. Neovaginal canals do not self-lubricate due to the nature of tissue used in these procedures and will require sufficient water-based lubrication during intravaginal assessments. Silicone-based lubricants and lubricants containing propylene glycol should be avoided due to the high osmolality of these agents and potential irritation to neovaginal mucosa.[3, 38]

Internal vaginal assessments in patients who do not identify with vaginal anatomy may be declined for a variety of reasons. If a rectal examination is indicated and preferred that may be an option for these patients. If a vaginal assessment is necessary, consider hormonal changes as described in **Table 3**. Give a clear, concise description of the assessment before proceeding and obtain explicit verbal consent by the patient before and throughout the assessment. Offer a chaperone to all patients and document accordingly in Epic. Use techniques described in the Trauma-Informed Care section above to ensure a thorough and competent examination.

Functional Outcomes:
At the time of this writing no existing patient reported outcome measures (PROMs) have been validated for use in the TGNC population who have received gender-affirming surgeries.[39] Existing PROMs may be used to assess bowel, bladder, and sexual function, however caution should be

used if the patient's anatomy differs from that of the intended audience. See **Appendix 9** for strengths and weaknesses of existing PROMS.

Differential Diagnosis:

Regardless of the patient's medical history it is important to conduct a thorough systems screen and physical examination to ensure that any underlying systemic, malignant, or specific physical injury is not contributing to the patient's current complaint. Appropriate screening should be performed as with cisgender patients. See existing standards of care for guidance on differential diagnoses based on patient complaint(s) when unrelated to gender-affirming surgery.

Assessment: (Establish Diagnosis and Need for Skilled Services)

Assessment will depend on patient complaint and medical history. Follow appropriate standards of care and/or protocols where applicable. These documents are available through Ellucid.

Prognosis:

Prognosis will depend on impairments present and the patient's medical history. See existing standards of care for expected outcomes in terms of bowel, bladder, and sexual function for dysfunction unrelated to gender-affirming surgery.
When treating patients with dysfunction following gender-affirming surgery please contact referring surgeon directly for protocols and with related questions.
As of this writing Brigham and Women's Hospital does not have preferred protocols following gender-affirming surgical procedures.

Having undergone gender-affirmation surgery may affect prognosis in unidentified ways, as little research currently exists about changes to pelvic floor function after such surgery. The physical therapist should be familiar with associated complications, as some may not appear until healing is completed.[3] For specific questions please contact referring surgeon.

Surgical Complications:

Vaginoplasty, short term (0-2 months)[11]**:** bleeding, infection, skin or clitoral necrosis, suture line dehiscence, urinary retention, vaginal prolapse, fistulas

Vaginoplasty, long term (0-1+ years)[11]**:** vaginal stenosis, formation of granulation tissue, fistulas, dermatological concerns normally found on penile skin like psoriasis or skin cancers (penile inversion approach), bowel disorders presenting in the neovaginal canal such as inflammatory bowel disease and neoplasms (bowel approach)

Phalloplasty, short term[11]**:** pelvic or groin hematomas, rectal injury, graft loss

Phalloplasty, long term[11]**:** urethral stricture, wound contraction/scarring, granulation tissue, coronal flattening, infection or erosion of penile implant

Goals:

Goals will depend on impairments present and the patient's medical history. See existing standards of care as indicated in Ellucid. Patient goals following gender-affirming surgery should be based on protocols provided by referring surgeon.

Treatment Planning / Interventions:

Interventions will depend on the impairments present, the patient's medical history, and the patient's goals. See existing standards of care as indicated in Ellucid for dysfunction unrelated to gender-affirmation surgery. Physical therapists may implement various treatments including but not limited to therapeutic exercises, neuromuscular education, internal and/or external manual therapy techniques, therapeutic modalities, pelvic floor muscle training, electrical stimulation, and significant patient education regarding bowel, bladder, and sexual function.

In the case of gender-affirming surgery specific post-surgical protocols will vary between surgeons. For example, patients with neovaginas will require strict adherence to long term dilator training and neovaginal irrigation. See **Appendix 10** for an example of post-surgical dilator training and patient education from pelvic floor physical therapists at Boston Medical Center. Any post-surgical protocol should be approved by the referring surgeon. As of this writing Brigham and Women's Hospital does not have a post-surgical protocol for any gender-affirmation surgery.

Frequency & Duration:

Frequency and duration will depend on the impairments present, the patient's medical history, and the patient's goals. See existing standards of care as indicated for recommended frequency and duration based on patient presentation. Also note frequency and duration may change after gender-affirmation surgery. Defer to referring surgeon for specific post-surgical protocol and guidance for follow up care.

Patient / Family Education:

Education for the patient and members of their support system is crucial to building rapport and encouraging the patient to fully participate in their care. It is important to note TGNC people may have a "chosen family" who are not blood relatives.[40]

Patient education should allow individuals to have a good understanding of their own anatomy and how certain behaviors or anatomical changes may impact their symptoms. As with cisgender patients, a clear dialogue should be had to explain the role of pelvic floor physical therapy, expectations and options during the examination, and prognosis. It may be beneficial to get patient consent before displaying anatomical models or pictures. See existing standards of care for guidance on relevant patient education based on common pelvic floor dysfunction unrelated to gender-affirmation surgery.

Recognizing when more education is needed as a provider is just as important as being informed about a patient's medical history.[23] Inevitably mistakes will be made when treating TGNC patients. Arguably the best thing to do in this situation is to apologize and move on, as dwelling on the subject draws more attention to the error and can place undue pressure on the patient to forgive their clinician or to provide education that is already easily available. Proofread any documentation to confirm appropriate pronoun and language use as well as patient preferences for your own reference in future visits.

Recommendations and Interdisciplinary Care Referrals to Other Providers:

It is essential to foster an interdisciplinary team approach when working with TGNC people. Many TGNC patients will be referred by a primary care physician, not necessarily a specialist, for their physical therapy evaluation. Depending on medical history and current needs, TGNC patients may not have and/or may not need an interdisciplinary team. If the physical therapist deems that a referral to a specialist would be appropriate for a TGNC patient, that referral should be to a confirmed TGNC-competent provider.[10,11] It is also likely that TGNC patients will be referred from an outside network or state, as competent practitioners are historically scarce, though this is improving.[41] Patients may benefit from a patient advocate for support and guidance while navigating the complex healthcare system. Most TGNC patients who use hormone therapy will be managed by an endocrinologist or other appropriate specialist.[10,11] There has been a recent push for TGNC-competent medical ethicists to be included in interdisciplinary team for TGNC patients and, while this is ideal, not many programs include this.[42] As of this writing Brigham and Women's Hospital has announced the inception of the Clinical Transgender Program to provide medical transition needs and emotional and mental health resources to TGNC patients. There are several TGNC-focused clinics in Boston and throughout New England that can be accessed for provider referrals as well. See **Appendix 4** for local institutions providing gender-affirming care.

Re-evaluation:

Standard Time Frame - 30 days or less if appropriate based on changes in their symptom presentation or post-surgical protocol. Please contact referring surgeon for preferred protocol.

Discharge Planning:

Discharge planning will depend on the impairments present, the patient's medical history, and the patient's goals. Typically, patients are appropriate for discharge once impairments have reduced, quality of life has improved, and the patient is independent and safe with their home exercise program.

Note: This standard of care is meant to be a general guideline for physical therapy considerations for TGNC patients. Due to the lack of TGNC-specific post-surgical protocols at Brigham and Women's Hospital this standard of care has attempted to include relevant post-surgical information without significant detail. This standard of care will be updated to reference appropriate protocols as they are created.

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Appendix 1

Glossary of Gender and Transgender Terms[8]

Preface

The purpose of this Glossary is to help explain gender and transgender terms that may be unfamiliar or confusing to clinicians who care for transgender clients. We acknowledge that there is a wide divergence of opinion with respect to the best terms to use when discussing transgender issues. Indeed, there is no universally-accepted definition of the word "transgender" because there is no agreement regarding what groups of people fall under the "transgender" umbrella. Moreover, some people find the word "transgender" itself a faulty descriptor of themselves.

Terminology confusion also exists because terms that were widely used just 15 years ago are now passé, or even deemed highly offensive. So when you review the literature, and read about or listen to current events, be cognizant that transgender language is in flux and that some authors innocently use certain words without understanding the nuances involved. In many respects, the variance in usage is healthy, as it reflects a diversity of thought that is just as broad – and accepting – as the gender and sexual orientation continua that members of society travel.

In The Fenway Institute's **Learning Module** *Understanding the T in LGBT: A Role for Clinicians* (available at www.thefenwayinstitute.org), as well as in live presentations, we use some of the terms in this Glossary interchangeably, so that you will become comfortable and fluent in moving among the terms. We also lean more heavily on terms that are more generally known or used in the current medical literature in order to make the discussion flow more easily. In doing so, we are not implying that one set of words is better than another set.

We hope this Glossary serves as a valuable tool for you. We suggest you use it as a general guide rather than strictly adhere to it. Be careful not to make assumptions. The best advice is to **listen to your clients – what terms do they use to describe themselves and their lives, what pronouns do they use, what words do they use to explain their medical needs?** If you are not sure what terms to use, be forthright and ask your clients what terms they prefer. Through asking questions and carefully listening to your clients, you will convey a welcoming attitude and thereby help your clients feel more accepted and comfortable.

In preparing this Glossary, we reviewed a diverse cross-section of resources, including other glossaries and style books, and we consulted with transgender community leaders and leading medical practitioners who treat gender dysphoric clients. We welcome readers' suggested changes/additions for consideration in future iterations of this Glossary. You can e-mail suggestions and comments to GenderGlossary@hotmail.com.

Key Terms

This section of the Glossary presents five terms that introduce key gender and transgender-related concepts. These five terms are not presented in alphabetical order.

The second section of this Glossary contains a more comprehensive, alphabetical listing of gender and transgender-related terms.

Gender identity	A person's innate, deeply-felt psychological identification as a man, woman, or something else, which may or may not correspond to the person's external body or assigned sex at birth (i.e., the sex listed on the birth certificate). "Sexual identity" should not be used as a synonym for, or as inclusive of, "gender identity". See Androgyne, Gender, Gender bender, Gender expression, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender expression	The external manifestation of a person's gender identity, which may or may not conform to the socially-defined behaviors and external characteristics that are commonly referred to as either masculine or feminine. These behaviors and characteristics are expressed through carriage (movement), dress, grooming, hairstyles, jewelry, mannerisms, physical characteristics, social interactions, and speech patterns (voice). Those people whose gender expression is (1) neither masculine nor feminine or (2) different from traditional or stereotypic expectations of how a man or woman should appear or behave are sometimes referred to as gender non-conforming. Cross-dressers generally express the gender that matches the clothing they are wearing when they are cross-dressing. In most cases, their gender expression while cross-dressing does not match their gender identity. See Androgyne, Cross-dressers, Gender, Gender bender, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Transgender	An umbrella term for people whose gender identity and/or gender expression differs from their assigned sex at birth (i.e., the sex listed on their birth certificates). Some groups define the term more broadly (e.g., by including intersex people) while other people define it more narrowly (e.g., by excluding "true transsexuals").

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	Transgender people may or may not choose to alter their bodies hormonally and/or surgically. While "transgender" is a popularly used word and generally seems to be a safe default term to use, some people find the term offensive as a descriptor of themselves. It is best to ask clients which terms, if any, they use or prefer. Use "transgender", not "transgendered". See Androgyne, Cisgender, Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transsexuals, Two Spirit.
Transition	The process that people go through as they change their gender expression and/or physical appearance (e.g., through hormones and/or surgery) to align with their gender identity. A transition may occur over a period of time, and may involve coming out to family, friends, co-workers, and others; changing one's name and/or sex designation on legal documents (e.g., drivers' licenses, birth certificates); and/or medical intervention. Some people find the word "transition" offensive and prefer terms such as "gender affirmation" or "process of gender affirmation". It is best to asks clients which terms they prefer. See Gender affirmation.
Gender affirmation, Affirmed female, Affirmed male	Many people view their coming out as an affirmation of the gender identity they have always had, rather than a transition from one gender identity to another. They may prefer to call themselves "affirmed females" (or just "females") or "affirmed males" (or just "males") rather than "transgender" or "transsexuals" because the "trans" prefix suggests they have changed, rather than accepted, their true gender identity. This is consistent with the concept that people do not need to have any surgery in order to affirm their gender. Related terms are "process of gender affirmation"; "gender-affirmed female" (or just "affirmed female"); and "gender-affirmed male" (or just "affirmed male"). See Transition.

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Main Glossary

Affectional orientation	See Sexual orientation.
Affirmed female, Affirmed male	See Gender affirmation.
Androgyne	Refers to someone whose gender identity is both male and female, or neither male nor female. A person might present as androgynous, and/or as sometimes male and sometimes female, and might choose to use an androgynous name. Pronoun preference typically varies, including alternately using male or female pronouns, using the pronoun that matches the gender presentation at that time, or using newly developed gender-neutral pronouns (e.g., hir, zie). See Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Beyond binary	See Gender bender.
Bi-gender	See Gender bender.
Birth defect	Some people who suffer or have suffered with gender dysphoria may refer to their medical condition as a "birth defect". Other people use the term "variation from the norm". See Gender Identity Disorder, Intersex.
Boi/Tranny Boi	Refers to people born female who feel that "female" is not an accurate or complete description of who they are. Other similar terms include "Butch," "Boychick," "Shapeshifter," and "Boss Grrl".
Bottom surgery	See Surgery.
Cisgender, cissexual	People whose gender identity and gender expression align with their assigned sex at birth (i.e., the sex listed on their birth certificates). Cisgender is a newer term that some people prefer when writing and speaking about transgender and non-transgender people, with the non-transgender people being referred to as "cisgender". In this manner, a transgender person is not singled out as being different or not normal. A similar pair of words is "cissexual" and "transsexual". The cis/trans distinction may have its origins in geometric isomers from organic chemistry. Compare transatlantic and cisatlantic. See Transgender, Transsexuals.
Coming out	The process of accepting, and telling others about, one's theretofore hidden gender identity, gender affirmation, or sexual orientation. See Outing, Stealth.
Cross-dressers (CD)	People who wear clothing, jewelry, and/or make-up not traditionally or

Appendix 1 (continued)

	stereotypically associated with their anatomical sex, and who generally have no intention or desire to change their anatomical sex. Cross-dressing is more often associated with men, is more often engaged in on an occasional basis, and is not necessarily reflective of sexual orientation or gender identity. Cross-dressing may be engaged in for numerous reasons, including a need to express femininity/masculinity, artistic expression, performance (e.g., drag queen/king), or erotic enjoyment. In the case of persons coming to terms with their gender dysphoria, they may start wearing clothing that matches their gender identity, which some people mistakenly say is the "cross-dressing phase" of their coming out process. These people are not cross-dressing and, therefore, should not be referred to as cross-dressers, because they are wearing the clothing that matches their gender identity. "Cross-dresser" should be used instead of the term "transvestite" (which is considered pejorative).
Disorders of Sex Development (DSD)	See Intersex.
Drag king	An anatomical female who cross-dresses as male primarily for performance or show. Drag kings generally identify as female and do not wish to change their anatomical sex. The term is sometimes used as an insult toward a transman.
Drag queen	An anatomical male who cross-dresses as a woman primarily for performance or show. Drag queens generally identify as male and do not wish to change their anatomical sex. The term is sometimes used as an insult toward a transwoman.
Facial Feminization Surgery (FFS)	See Surgery.
FTM: Female to Male (used with and without "transsexual")	See Transman.
Gender or Gender role	Refers to the traditional or stereotypical behavioral differences between men and women, as defined by the culture in which they live, in terms of, among others things, their gender expressions, the careers they pursue, and their duties within a family. See Androgyne, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender affirmation, Affirmed female, Affirmed male	Many people view their coming out as an affirmation of the gender identity they have always had, rather than a transition from one gender identity to another. They may prefer to call themselves "affirmed

Appendix 1 (continued)

	females" (or just "females") or "affirmed males" (or just "males") rather than "transgender" or "transsexuals" because the "trans" prefix suggests they have changed, rather than accepted, their true gender identity. This is consistent with the concept that people do not need to have any surgery in order to affirm their gender. Related terms are "process of gender affirmation"; "gender-affirmed female" (or just "affirmed female"); and "gender-affirmed male" (or just "affirmed male"). See Transition.
Gender Affirmation Surgery (GAS)	See Surgery.
Gender bender, Bi-gender, Beyond binary, Gender fluid, Gender outlaw, Pan gender, Polygender	Similar to genderqueer and androgyne, these terms refer to gender variations other than the traditional, dichotomous view of male and female. People who self-refer with these terms may identify and present themselves as both or alternatively male and female, as no gender, or as a gender outside the male/female binary. See Androgyne, Gender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender dysphoria	Some people prefer this term over "gender identity disorder" because it has a less stigmatizing impact. See Gender Identity Disorder.
Gender expression	The external manifestation of a person's gender identity, which may or may not conform to the socially-defined behaviors and external characteristics that are commonly referred to as either masculine or feminine. These behaviors and characteristics are expressed through carriage (movement), dress, grooming, hairstyles, jewelry, mannerisms, physical characteristics, social interactions, and speech patterns (voice). Those people whose gender expression is (1) neither masculine nor feminine or (2) different from traditional or stereotypic expectations of how a man or woman should appear or behave are sometimes referred to as gender non-conforming. Cross-dressers generally express the gender that matches the clothing they are wearing when they are cross-dressing. In most cases, their gender expression while cross-dressing does not match their gender identity. See Androgyne, Cross-dressers, Gender, Gender bender, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender fluid	See Gender bender.
Gender identity	A person's innate, deeply-felt psychological identification as a man,

Appendix 1 (continued)

	woman, or something else, which may or may not correspond to the person's external body or assigned sex at birth (i.e., the sex listed on the birth certificate). "Sexual identity" should not be used as a synonym for, or as inclusive of, "gender identity". See Androgyne, Gender, Gender bender, Gender expression, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender Identity Disorder (GID)	According to DSM-IV-TR, Gender Identity Disorder is the diagnosis used when a person has (1) a strong and persistent cross-gender identification and (2) persistent discomfort with his or her sex or sense of inappropriateness in the gender role of that sex, and the disturbance (3) is not concurrent with physical intersex condition and (4) causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. According to DSM-IV-TR, Gender Identity Disorder Not Otherwise Specified can be used for persons who have a gender identity problem with a concurrent congenital intersex condition. Many people prefer the term "gender dysphoria", thus eliminating the negative connotation of the word "disorder". See Gender dysphoria; Gender identity.
Gender minority	Used to describe people whose gender expression and/or gender identity does not match traditional societal norms. "Sexual minority" should not be used as a synonym for, or as inclusive of, "gender minority". See Sexual minority.
Gender non-conforming	People whose gender expression is (1) neither masculine nor feminine or (2) different from traditional or stereotypic expectations of how a man or woman should appear or behave. See Androgyne, Gender, Gender bender, Gender expression, Gender identity, Genderqueer, Intersex, Sex, Transgender, Two Spirit.
Gender outlaw	See Gender bender.
Genderqueer	This term is generally used in two ways: (1) as an umbrella term that includes all people whose gender varies from the traditional norm, akin to the use of the word "queer" to refer to people whose sexual orientation is not heterosexual only; or (2) to describe a subset of individuals who are born anatomically female or male, but feel their gender identity is neither female or male. See Androgyne, Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Intersex, Sex, Transgender, Two

Appendix 1 (continued)

	Spirit.
Gender Reassignment Surgery (GRS), Gender Realignment Surgery (GRS)	See Surgery.
Genital Reassignment Surgery (GRS), Genital Reconstruction Surgery (GRS), Genital surgery (GS)	See Surgery.
Getting Clocked/Read/Spooked	When people are not perceived as the gender they are presenting in (e.g., based on their dress and mannerisms match according to social norms). For example: an anatomical male dressed as a female who is perceived by others as male (e.g., a stranger says "that's a man in a dress"), or a transman who is perceived as a woman. See Passing.
GLBT	See LGBT.
Hermaphrodite	Previously used to describe intersex; now considered pejorative and outdated. See Intersex.
Intersex	A spectrum of conditions involving anomalies of the sex chromosomes, gonads, reproductive ducts, and/or genitalia. The most traditional definition of intersex refers to individuals born with both male and female genitalia, or genitalia that are not clearly male or female. A person may have elements of both male and female anatomy, have different internal organs than external organs, or have anatomy that is inconsistent with chromosomal sex. This condition is sometimes not identified until puberty, when the person either fails to develop certain expected secondary sex characteristics, or develops characteristics that were not expected. According to the DSM-IV-TR, Gender Identity Disorder is not an appropriate diagnosis when a strong and persistent cross-gender identification is concurrent with a physical intersex condition. However, people born with certain intersex conditions may be more likely than the general population to feel their gender assignment at birth was incorrect. The term "Disorders of Sex Development" (DSD) is currently recommended where the medical care of infants is considered. Sometimes written as "Disorders of Sexual Development" or "Disorders of Sex Differentiation". These terms are controversial and not widely accepted.

Appendix 1 (continued)

	Some people suggest that a better term is "Variation in Sex Development" or "Variability in Sex Development" (VSD), thus eliminating the negative connotation of the word "disorder". Some people suggest that gender-dysphoric people may be intersex or have a variation in sex development because their anatomical sex does not match their gender identity, perhaps as a result of cross brain feminization or masculinization. "Hermaphrodite" is an old term previously used instead of "intersex" and is now considered pejorative. See Androgyne, Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Sex, Transgender, Two Spirit.
LGBT	Acronym for Lesbian, Gay, Bisexual, and Transgender. Sometimes written as GLBT.
LGBTIQQAA	There are numerous variations of the basic LGBT acronym used by some people in order to be more inclusive, with "I" for Intersex, "Q" for Queer and/or Questioning, and "A" for Asexual and/or Ally.
Lower surgery	See Surgery.
MTF: Male to Female (used with and without "transsexual")	See Transwoman.
Neo-vagina	While this is the technical term for when a vagina is surgically created and is suitable for use when having a discussion with another medical professional, it is not a term that should be used with a client during routine office visits or routine gynecological examinations. A clinician need not remind a female client that she has a neo-vagina. Simply say "vagina".
Outing	The unauthorized disclosure by one person of another person's theretofore hidden gender identity, gender affirmation, or sexual orientation. See Coming out, Stealth.
Pan gender	See Gender bender.
Passing	When people are perceived as the gender they are presenting in (e.g., based on their dress and mannerisms match according to social norms). For example: an anatomical male dressed as a female who is perceived by others as female, or a transman who is perceived as a man. See Getting Clocked/Read/Spooked.
Polygender	See Gender bender.

Appendix 1 (continued)

Real life experience (RLE), Real life test (RLT)	Generally accepted guideline, from the Standards of Care for Gender Identity Disorders (see www.WPATH.org), that requires clients to live outwardly in the gender that matches their gender identity for a specified period of time (typically one year) prior to being eligible for genital surgery. Less often referred to as the "real life test" (RLT), which is considered a misleading and offensive term and, therefore, it should be avoided.
Sex	In a dichotomous scheme, the designation of a person at birth as either "male" or "female" based on their anatomy (genitalia and/or reproductive organs) and/or biology (chromosomes and/or hormones). Sometimes "sex" and "gender" are used interchangeably. For clarity, it is better to distinguish sex, gender identity, and gender expression from each other. See Androgyne, Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex Transgender, Two Spirit.
Sex change, Sex change operation, Sex change surgery	These terms are considered pejorative and, therefore, should be avoided. See Surgery.
Sex Reassignment Surgery (SRS), Sex Realignment Surgery (SRS)	The term "sex reassignment surgery" and the lesser-used term "sex realignment surgery" are increasingly falling into disuse. See Surgery.
Sexual minority	Used to describe people whose sexual orientation is not heterosexual only. See Gender minority.
Sexual orientation	A person's enduring physical, romantic, emotional, and/or spiritual attraction to another person. May be lesbian, gay, heterosexual, bisexual, pansexual, polysexual, or asexual. Sexual orientation is distinct from sex, gender identity, and gender expression. A person's sexual orientation should not be assumed based on the perceived sex of that person's partner(s). For example, a man who identifies himself as heterosexual may have sexual relationships with men and women. "Affectional orientation" is sometimes used as a more encompassing term.
Stealth	When a transgender person who has transitioned into a different sex or gender does not divulge the fact of transition. When a person has gone through gender affirmation and does not disclose that fact to others. The risk or fear of being "outed" may be very distressing to a person who is living stealth.

Appendix 1 (continued)

	Some people who considered themselves transgender prior to transition believe that after they transition they are no longer transgender and, therefore, no longer have anything to reveal. Many people believe the information about their medical treatments and surgeries is private and does not need to be divulged any more than anyone else divulges their medical histories to others. Clinicians need to treat such medical information with the same required degree of confidentiality as they would for all of their other clients. See Coming out, Outing.
Surgery	Persons with gender dysphoria may or may not have surgery and, if they have surgery, they may have one or more types of surgery, depending upon their circumstances. Numerous terms are used to describe the genital surgeries that some people may undergo, including "gender affirmation surgery" (GAS), "gender reassignment surgery" (GRS), "genital reassignment surgery" (GRS), "genital reconstruction surgery" (GRS), "genital surgery" (GS), and "sex reassignment surgery" (SRS). The foregoing terms are purposely listed in alphabetical order in view of the strong feelings some people have with respect to what is the right or better term to use; clinicians should listen to their clients to see which terms they prefer. Sometimes, though very infrequently, "realignment" is used instead of "reassignment" or "reconstruction". "Sex reassignment surgery" is increasingly falling into disuse as many people find the term offensive. In discussions with clients, all a clinician really needs to say is "genital surgery". Some clients may prefer to use the term "bottom surgery". Others may call this "lower surgery", stating that they "did not have surgery on their bottoms". It is best to ask clients what terminology they prefer. Some people may have an orchiectomy. Some people may have a hysterectomy and a bilateral salpingo-oophorectomy. Some people may have breast augmentation. "Top surgery" is a term most often used by transmen to refer to the removal of breast tissue, relocation and resizing of nipple complexes, and chest reconstruction to a male chest structure.

Appendix 1 (continued)

	Some people may have "facial feminization surgery" (FFS). Some people may have a chondrolaryngoplasty ('trach shave" or Adam's apple reduction). Some people may have surgeries to alter the pitch of their voice. Surgery is not essential for some people to resolve their gender dysphoria. Moreover, for some people, surgery is a relatively minor aspect of their gender affirmations. Some people cannot have surgery because of, among other reasons, financial constraints and health reasons. In the United States, in most states and for federal government purposes, gender-affirmed people (transsexuals) cannot get the sex marker (i.e., "Male" or "Female") changed on their identity papers (e.g., birth certificates, drivers' licenses) without proof of some form of surgery. In many cases, the employees of government agencies may not be familiar with the other terms discussed in this Glossary and, therefore, clinicians may have no choice but to use the term "sex reassignment surgery" in any affidavits they sign for submission to the agencies. A few states, such as Massachusetts and New Jersey, will allow changes to drivers' licenses with medical documentation short of surgery. Clinicians may want to ask their clients for a copy of the governing legal regulations and/or forms their clients must submit to the government to confirm what terminology the government is currently requiring in order to minimize problems and embarrassment to their clients at the time they submit the forms. Many people consider "sex change", "sex change operation", "sex change surgery", "pre-op", and "post-op" as pejorative and, therefore, these terms should be avoided.
Top surgery	See Surgery.
Tranny, Trans	Short for a transgender person. Its use is similar to the use of the word "queer" by some LGBT people. Some people consider the terms tranny, trans, and/or queer derogatory, especially when used by someone who is not transgender or lesbian, gay, or bisexual. See Transgender
Tranny-chaser	Refers to someone who is attracted to and/or seeks out sex or relationships with transgender people. Generally considered a derogatory term.
Trans	See Transgender.
Trans community	See Gender minority.
Transgender	An umbrella term for people whose gender identity and/or gender

Appendix 1 (continued)

	expression differs from their assigned sex at birth (i.e., the sex listed on their birth certificates). Some groups define the term more broadly (e.g., by including intersex people) while other people define it more narrowly (e.g., by excluding "true transsexuals"). Transgender people may or may not choose to alter their bodies hormonally and/or surgically. While "transgender" is a popularly used word and generally seems to be a safe default term to use, some people find the term offensive as a descriptor of themselves. It is best to ask clients which terms, if any, they use or prefer. Use "transgender", not "transgendered". See Androgyne, Cisgender, Gender, Gender bender, Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transsexuals, Two Spirit.
Transition	The process that people go through as they change their gender expression and/or physical appearance (e.g., through hormones and/or surgery) to align with their gender identity. A transition may occur over a period of time, and may involve coming out to family, friends, co-workers, and others; changing one's name and/or sex designation on legal documents (e.g., drivers' licenses, birth certificates); and/or medical intervention. Some people find the word "transition" offensive and prefer terms such as "gender affirmation" or "process of gender affirmation". It is best to asks clients which terms they prefer. See Gender affirmation.
Transman	Generally refers to someone who was identified female at birth but who identifies and portrays his gender as male. People will often use this term after taking some steps to express their gender as male, or after medically transitioning. Some, but not all, transmen make physical changes through hormones or surgery. Some people will refer to themselves as men of transgender experience. Some transmen do not use FTM (female-to-male) to describe themselves because they don't think of themselves as having transitioned from female to male. Some people prefer to be referred to as men rather than transmen or transgender men. Alternate terms: affirmed male, FTM, gender-affirmed male, man.

Appendix 1 (continued)

	See Gender affirmation.
Transphobia	Dislike of, or discomfort with, people whose gender identity and/or gender expression do not conform to traditional or stereotypic gender roles.
Transsexuals	People whose gender identity differs from their assigned sex at birth (i.e., the sex listed on their birth certificates). People who, often on a full-time basis, live their lives as a member of the sex opposite of their birth-designated sex. They may or may not (1) take hormones or have surgery or (2) be gender dysphoric. Use of the term "transsexual" remains strong in the medical community because of the DSM's prior use of the diagnosis "Transsexualism" (changed to "Gender Identity Disorder" in DSM-IV). Some people suggest that "transsexual" includes only those people who are in the process of changing, or who have changed, their anatomical sex to align with their gender identity. In older writings, such people were referred to as "true transsexuals" when they had moderate to high intensity gender dysphoria. Some people use "primary transsexual" or "early transitioner" to refer to people who have not had a significant adult life in their birth gender because they started or completed their gender affirmations during their teen years (or earlier) or at the latest in young adulthood. These people also use "secondary transsexual" or "late transitioner" for those people who start their transitions after the age of 30. The distinctions mentioned in this paragraph have resulted in some very heated discussions and are considered offensive to many people. It is highly recommended that clinicians not use these terms unless their clients bring them up in discussions. The term "transsexual" is hotly debated, and it is not certain whether people will use or reject this term. For some, it is disliked in the same way "homosexual" has become disfavored. Many people find both transsexual and homosexual pejorative. "Transsexual" is considered by some to be a misnomer inasmuch as the underlying medical condition is related to gender identity and not sexuality. ***It is safer for clinicians not to use the term "transsexual" unless and until they are sure that it is a term their clients are comfortable with.*** When in doubt, clinicians should ask their clients which terms they would like the clinicians to use. See Cissexual, Gender affirmation, Gender Identity Disorder,

Appendix 1 (continued)

	Transgender, Transition, Transman, Transwoman.
Transvestite (TV)	Previously used to describe a cross-dresser; now considered pejorative and outdated. See Cross-dressers.
Transwoman	Generally refers to someone who was identified male at birth but who identifies and portrays her gender as female. People will often use this term after taking some steps to express their gender as female, or after medically transitioning. Some, but not all, transwomen make physical changes through hormones or surgery. Some people will refer to themselves as women of transgender experience. Some transwomen do not use MTF (male-to-female) to describe themselves because they don't think of themselves as having transitioned from male to female. Some people prefer to be referred to as women rather than transwomen or transgender women. Alternate terms: affirmed female, gender-affirmed female, MTF, woman. See Gender affirmation.
True transsexual	See Transsexuals.
Two Spirit, Two-spirited	People who display characteristics of both male and female genders. Sometimes referred to as a third gender – the male-female gender. The term is derived from the traditions of some Native North American cultures. Two Spirit also means a mixture of masculine and feminine spirits living in the same body. This term also represents the self-identity description used by many Native American gay men who do not identify as cross-gendered or transgender. See Androgyne, Gender, Gender bender Gender expression, Gender identity, Gender non-conforming, Genderqueer, Intersex, Sex, Transgender.
Variability in Sex Development (VSD), Variation in Sex Development (VSD)	See Intersex.

Appendix 1 (continued)

For additional language education see Partners HealthStream:

A. PHE Creating a Welcoming
B. Environment for LGBTQ Patients, Visitors, and Staff

Appendix 2
Immediate and Delayed Reactions to Trauma[16]

Immediate Emotional Reactions	**Delayed Emotional Reactions**
Numbness and detachment	Irritability and/or hostility
Anxiety or severe fear	Depression
Guilt (including survivor guilt)	Mood swings, instability
Exhilaration as a result of surviving	Anxiety (e.g., phobia, generalized anxiety)
Anger	Fear of trauma recurrence
Sadness	Grief reactions
Helplessness	Shame
Feeling unreal; depersonalization (e.g., feeling as if you are watching yourself)	Feelings of fragility and/or vulnerability
Disorientation	Emotional detachment from anything that requires emotional reactions (e.g., significant and/or family relationships, conversations about self, discussion of traumatic events or reactions to them)
Feeling out of control	
Denial	
Constriction of feelings	
Feeling overwhelmed	
Immediate Physical Reactions	**Delayed Physical Reactions**
Nausea and/or gastrointestinal distress	Sleep disturbances, nightmares
Sweating or shivering	Somatization (e.g., increased focus on and worry about body aches and pains)
Faintness	Appetite and digestive changes
Muscle tremors or uncontrollable shaking	Lowered resistance to colds and infection

Appendix 2 (continued)	Persistent fatigue
Elevated heartbeat, respiration, and blood pressure Extreme fatigue or exhaustion Greater startle responses Depersonalization	Elevated cortisol levels Hyperarousal Long-term health effects including heart, liver, autoimmune, and chronic obstructive pulmonary disease
Immediate Cognitive Reactions	**Delayed Cognitive Reactions**
Difficulty concentrating Rumination or racing thoughts (e.g., replaying the traumatic event over and over again) Distortion of time and space (e.g., traumatic event may be perceived as if it was happening in slow motion, or a few seconds can be perceived as minutes) Memory problems (e.g., not being able to recall important aspects of the trauma) Strong identification with victims	Intrusive memories or flashbacks Reactivation of previous traumatic events Self-blame Preoccupation with event Difficulty making decisions Magical thinking: belief that certain behaviors, including avoidant behavior, will protect against future trauma Belief that feelings or memories are dangerous Generalization of triggers (e.g., a person who experiences a home invasion during the daytime may avoid being alone during the day) Suicidal thinking

Appendix 2 (continued)	
Immediate Behavioral Reactions	**Delayed Behavioral Reactions**
Startled reaction	Avoidance of event reminders
Restlessness	Social relationship disturbances
Sleep and appetite disturbances	Decreased activity level
Difficulty expressing oneself	Engagement in high-risk behaviors
Argumentative behavior	Increased use of alcohol and drugs
Increased use of alcohol, drugs, and tobacco	Withdrawal
Withdrawal and apathy	
Avoidant behaviors	
Immediate Existential Reactions	**Delayed Existential Reactions**
Intense use of prayer	Questioning (e.g., "Why me?")
Restoration of faith in the goodness of others (e.g., receiving help from others)	Increased cynicism, disillusionment
Loss of self-efficacy	Increased self-confidence (e.g., "If I can survive this, I can survive anything")
Despair about humanity, particularly if the event was intentional	Loss of purpose
Immediate disruption of life assumptions (e.g., fairness, safety, goodness, predictability of life)	Renewed faith
	Hopelessness
	Reestablishing priorities
	Redefining meaning and importance of life
	Reworking life's assumptions to accommodate the trauma (e.g., taking a self-defense class to reestablish a sense of safety)

Appendix 3

Reproductive considerations for medical and surgical transition[23]:

Testosterone:

- Testosterone should not be considered a form of contraception.
- Patients should avoid getting pregnant while taking testosterone – it is considered a teratogen.
- Conception and pregnancy can occur after even long-term testosterone use.
- Testosterone likely decreases conception rate through ovarian suppression, however we can't currently quantify the direct impact on ovulation or conception rates.
- If genetically related children are desired or potentially desired in the future, consider storing oocytes or embryos prior to initiating testosterone. (Note: ovarian tissue preservation is still considered experimental).
- Patients need to stop testosterone in order to pursue carrying a pregnancy.
- If genetic children are desired after initiation of testosterone, testosterone should be stopped. The determination of whether and to what extent assisted reproductive technologies (ART) will be used will depend on the trans man's a) desire to carry the pregnancy, b) presence of normal menstrual cycle, and c) the desired method of joining sperm and egg.

Chest surgery:

- Chest feeding may be possible after certain forms of chest reconstruction.
- It is not possible to tell prior to attempting to chest feed whether this is possible based on type of surgery, chest anatomy *etc*.
- Discuss the likely impact of various surgical approaches on ability to chest feed / lactate.
- Discuss methods used by transgender men to chest feed after chest reconstruction.
- Encourage the patient to discuss these issues with their surgeon (ideally prior to surgery).
- Encourage lactation support if desired.
- If chest feeding is not possible or not desired discuss other methods for infant feeding and bonding.

Genital surgery:

- Metoidioplasty, scrotoplasty, or phalloplasty do not, by themselves, impair future reproductive options, but would likely necessitate a cesarean section for delivery.
- Vaginectomy combined with hysterectomy and/or oophorectomy would eliminate the chance of future pregnancies. If patients might want biological children someday, they should consider storing oocytes, or embryos prior to genital surgery. Ovarian tissue preservation is still considered experimental.

Postpartum Testosterone:

- The effects of taking testosterone while lactating is unknown. There are possible risks to the child, but no clear evidence of harm. The benefits to the parent's mental, emotional, physical and social wellbeing are likely highly variable, and best evaluated by the patient.

Appendix 3 (continued)

- If a patient does resume or initiate testosterone while nursing, counsel them on how to look for signs of androgen exposure in the infant and encourage them to let their child's pediatrician know.

Appendix 4

Gender affirming surgical procedures performed in New England:

Vaginoplasty: Boston Children's Hospital, Boston Medical Center, Brigham and Women's Hospital, Hasbro Children's Hospital, Massachusetts General Hospital

Phalloplasty/Metoidioplasty: Boston Children's Hospital, Brigham and Women's Hospital, Massachusetts General Hospital

Chest Reconstruction: Baystate Health, Beth Israel Deaconess Medical Center, Boston Children's Hospital, Boston Medical Center, Brigham and Women's Hospital, Core Physicians (Exeter), Hasbro Children's Hospital, Massachusetts General Hospital

Gender affirming services and locations within New England according to negendercare.org:

Consult negendercare.org for comprehensive list of locations and services offered including but not limited to:

A. Hormone therapy (adult, adolescent, blockers)
B. Surgical transitions (partially listed above)
C. Reproductive health
D. Behavioral health
E. Primary care (adult, adolescent, pediatric)
F. Case management
G. Infectious disease
H. Physical therapy

Adapted from New England Gender C.A.R.E. Gender Affirming Services. Accessed April 20, 2020. http://negendercare.org/gender-services/.

Appendix 5

Safety Resources for TGNC Adolescents and Adults: (not an exhaustive list)

Local Resources:

Boston Alliance of Gay, Lesbian, Bisexual, and Transgender Youth (BAGLY) Resources: https://www.bagly.org/resourcesforyouth

Boston Gay, Lesbian, Bi-Sexual and Transgender Adolescent Social Services (GLASS) for communities of color: https://jri.org/services/health-and-housing/health

Child and Adolescent Transgender Center for Health (CATCH) at BMC: https://www.bmc.org/transgender-child-adolescent-center

Center for Transgender Surgery & Medicine at BMC: https://www.bmc.org/center-transgender-medicine-and-surgery/community-resources

Fenway Health Transgender Health Resources: https://fenwayhealth.org/care/medical/transgender-health/

New England Gender C.A.R.E.: negendercare.org

Gender Multispecialty Clinic (GeMS) Clinic at Boston Children's Hospital: http://www.childrenshospital.org/centers-and-services/programs/f-_-n/gender-multispecialty-service/parent-and-family-resources

National/Global Resources:

Department of Veteran's Affairs Directive: Providing Health Care for Transgender and Intersex Veterans: transequality.org/PDFs/VHA_Trans_Health.pdf

Freeing Ourselves: A Guide to Health & Self Love for Brown Bois: www.brownboiproject.org

Medicare Benefits and Transgender People: www.transequality.org/Resources/MedicareBenefitsAndTransPeople_Aug2011_FINAL.pdf

National Center for Transgender Equality: www.transequality.org

Transgender Law Center Health Care Issues: www.transgenderlawcenter.org/issues/health

Vancouver Coastal Health Guidelines for Transgender Care: transhealth.vch.ca

World Professional Association for Transgender Health: www.wpath.org

Appendix 6

Tucking Resources

Matsui de Roo J. Addressing tucking in transgender and gender variant patients. Smart Sex Resource. Published October 20, 2016. Accessed March 30, 2020. https://smartsexresource.com/health-providers/blog/201610/addressing-tucking-transgender-and-gender-variant-patients.

Safer Tucking. Published 2018. Accessed March 30, 2020. http://callen-lorde.org/graphics/2018/09/HOTT-Safer-Tucking_Final.pdf.

Things to Know About Tucking. Accessed April 28, 2020. http://www.phsa.ca/transcarebc/Documents/HealthProf/Tucking-Handout.pdf.

Appendix 7
Binding Resources

Moffa J. Chest Binding: A Physician's Guide. Published April 6, 2019. Accessed April 20, 2020. https://www.prideinpractice.org/articles/chest-binding-physician-guide/

Gallagher L. How to Bind. Published 2016. Accessed March 30, 2020. https://stonewallcolumbus.org/wp-content/uploads/2016/12/SWC-Trans-Binding-Tips-Pamphlet.pdf.

A Guide to Binding. Published July 23, 2019. Accessed March 30, 2020. https://transsafespace.network/threads/a-guide-to-binding-chest-binding-resources-for-cash-strapped-trans-men.167/.

Appendix 8

Potential scar locations after gender affirming surgery

Metoidioplasty

- **Simple metoidioplasty**
  - Along urogenital diaphragm
  - Superior to neophallus where clitoris was released
  - Dissection site of labia minora
- **Ring metoidioplasty or centurion metoidioplasty**
  - Superior to neophallus
  - Along attachment of labia minora
  - Perineal body
  - Superficial transverse perineal
  - Levator ani

Scrotoplasty

- Superior aspect of labia major and/or midline along center seam of scrotum

Vaginectomy

- Urogenital diaphragm
- Perineal body
- Pelvic diaphragm

Monsplasty

- Along site of dissected mons fat

Phalloplasty

- Any locations listed above
- Around attachment of phallus to native skin
- Donor site (will vary depending on procedure)
  - Inferior gluteal fold
  - Lateral thigh
  - Radial forearm
  - Lateral thorax
- Proximal adductors
- Suprapubic area
- Lower abdominal area
- Urogenital diaphragm
- Anterior and posterior abdominal wall

Appendix 8 (continued)

Orchiectomy

- Inguinal area
- Scrotal area

Vaginoplasty

- **Penile inversion**
  - Along lateral border of new labia minora and majora tissue
  - Perineum
  - Levator ani
  - Lateral borders of neoclitoris
- **Bowel (ilieal and rectosigmoid)**
  - Locations as listed above
  - Abdominal laparascopic
    - Umbilicus
    - Right lateral at umbilical level, mid clavicular line
    - Right lower quadrant
- **Peritoneal pulldown**
  - As above
  - Introital anastomosis

Buttocks Augmentation

- Adjacent to coccyx

Hip Augmentation

- Posterolateral to TFL if implants

Adapted from Fitzgerald K, Ciesla C. FTM/MTF Post-operative Scar Considerations. 2018.

Appendix 9

Description of existing PROMs[39]

Table 1 Existing PROMs used in measuring TGNB individuals' quality of life/psychiatric outcomes, urinary outcomes, sexual outcomes, and aesthetic outcomes, as they relate to gender confirming surgery

Tool	Validated populations	QoL/ psychiatric outcomes	Urologic outcomes	Sexual outcomes	Aesthetic outcomes	Description	Strengths	Weaknesses
Satisfaction with Life Scale (SWLS) [Diener, 1985 (8)]	All patients generally	x				5-item questionnaire with 7-point Likert scale assessing general satisfaction with life	Validated to measure general satisfaction with life	An enormous number of factors are likely to influence the result of this measure
Body Image Scale (BI-1) [Lindgren, 1975 (9)]	TG (excluding GNB)					30-item questionnaire with 5-point Likert scale rating satisfaction with anatomic parts, and question regarding desire to change each part medically or surgically. Higher score indicates greater dissatisfaction. Three of 30 domains could be affected by bottom surgery (scrotum/vagina, penis/clitoris, testicles/ovaries/ uterus)	Validated in transgender patients. Can be used pre- and post-operatively to assess overall satisfaction with individual body parts	Not validated in GNB populations Not specific to gender-related body dysphoria Changes in any one body part are unlikely to meaningfully change a patient's score At least 10/30 (breasts, arms, muscles, facial hair, biceps, hair, voice, body hair, chest, appearance) are likely to be affected by hormone therapy or voice therapy
Biological Questionnaire for Transvestites and Transsexuals (BQTT) [Verschoor, 1988 (10)]	Not validated	x		x		250-item questionnaire referring to sociodemographic information, gender development during adolescence and adulthood, preadolescent gender behavior, "transvestite practice", sexuality, and medical antecedents, stable sexual relationship, sex of partner, sexual satisfaction with the partner, frequency of orgasm, frequency of masturbation, and frequency of sexual arousal	Best used as a general QoL measure	Not validated Includes a great number of questions about psychosocial factors not likely to be meaningfully affected by surgery Very long, cumbersome to dispense
Utrecht Gender Dysphoria Scale (UGDS) [Cohen-Kettenis, 1997 (11)]	TG (excluding GNB)	x			x	12-item scale (separate scales for M and F) that assesses gender dysphoria. Examples, "I feel a continuous desire to be treated as a man/woman" and "Every time someone treats me as a woman/ man I feel hurt."	Five of 12 items relate to GCS directly (UGDS-M): "I feel unhappy because I have a male body", "The idea that I will always be a boy/man gives me a sinking feeling", "I hate myself because I am a boy/man", "I dislike urinating in a standing position", "I dislike having erections."	Necessarily depends on a gender binary, excludes GNB patients Not specifically validated for effects of GCS Likely to be affected by non-surgical treatments that also are effective at reducing gender dysphoria Includes questions not likely to change as a result of any kind of gender affirmation treatment

Table 1 (*continued*)

Appendix 8 (continued)

Table 1 (*continued*)

Tool	Validated populations	QoL/ psychiatric outcomes	Urologic outcomes	Sexual outcomes	Aesthetic outcomes	Description	Strengths	Weaknesses
Utrecht Gender Dysphoria Scale-Gender Spectrum (UGDS-GS) [McGuire, 2016 (12)]	Adapted from UGDS for gender spectrum	x			x	18-item scale that assesses gender dysphoria. Example adapted question from UGDS, "Every time someone treats me like my assigned sex I feel hurt."	Has been adapted but not validated for GNB patients	Limitations mirror those of UGDS
Gender Dysphoria Questionnaire for Adults and Adolescents (GIDYQ-AA) [Deogracias, 2007 (13)]	TG (excluding GNB)	x				27-item questionnaire with a 5-point Likert scale, including 13 subjective, 9 social, 3 somatic, 2 sociologic items. Measures gender dysphoria ("I feel more like the opposite sex", "I don't feel like I am of my current sex", "Strangers treat me like a member of the opposite sex"), as well as those that are likely to be affected by GCS ("Wise for sex-reassignment surgery", "Felt more like the opposite sex", "Thought of self as opposite sex", "Not feeling like they are of their current sex")	Many [16] items are likely to be affected by gender affirming surgery: "Wise for sex-reassignment surgery", "Felt more like the opposite sex", "Thought of self as opposite sex", "Not feeling like they are of their current sex", "Satisfaction with current sex", "Dreaming of being the opposite sex", "Upset reuse of current sex on official forms", "Anatomic dysphoria", "Strangers treat person as opposite sex", "Presented self as opposite sex at parties", "Thought of self as current sex", "Friends or relatives treat person as opposite sex", "Presented self as opposite sex at work or school", "Having to work at being their current sex", "Comfort with using restrooms of biological sex"	Not validated in GNB populations Several items are better indicators of transgender identity rather than GD. Only a few questions [5] ask about feelings regarding transgender identity and GD Some questions [7] appear to conflate "sex" with "gender"
King's Health Questionnaire (KHQ) [Kelleher, 1997 (14)]	Cisgender women	x	x			21-item questionnaire with a 4-point Likert scale. Measures the psychosocial effects of urinary incontinence: psychical, social, and personal limitations; emotional problems; and sleep or energy disturbance	Validated measure likely to capture several aspects of urologic health post-vaginoplasty	Not validated in TGNB populations

Table 1 (*continued*)

Appendix 9 (continued)

Table 1 (*continued*)

Tool	Validated populations	QoL/ psychiatric outcomes	Urologic outcomes	Sexual outcomes	Aesthetic outcomes	Description	Strengths	Weaknesses
Sheffield Pelvic Organ Prolapse Quality of Life Questionnaire (SPS-Q) [Bradshaw, 2006 (15)]	Cisgender women		x	x	x	25-item questionnaire with a 4-point Likert scale. Measures presence and severity of urinary, bowel, and sexual function symptoms associated with vaginal prolapse	Validated measure likely to capture several aspects of urologic and sexual health post-vaginoplasty	Not validated in TGNB populations
Body Image Scale for Women (BISFW) [Taylor, 1994 (16)]	Cisgender women			x		22-item scale measuring interest, activity, and satisfaction. Meant to be comparable in form and content to the BSFQ for Men (17)	Includes sexual activity, subjective factors like satisfaction with sex life and interpersonal consequences of sexual health, and details of sexual dysfunction like frequency of dyspareunia, lack of lubrication, anorgasmia, vaginal tightness, incontinence, and vaginal infection	Not validated in TGNB populations Will not optimally capture psychosocial features of sexual health specific to TGNB populations
Female Sexual Function Index (FSFI) [Rosen, 2000 (18)]	Cisgender women			x		19-item scale measuring desire, arousal, lubrication, orgasm, satisfaction, and sexual pain or discomfort	More focus on individual components of sexual health	Not validated in TGNB populations Less focus on interpersonal results of sexual health
Sexual Functioning Index-Gender Spectrum (SFI-GS) [Spencer, 2017 (19)]	–			x		19-item questionnaire assessing 5 domains: sexual activity, alone or with a partner; sexual interest; physical arousal; orgasm; and sexual pain or discomfort	Adapted for gender spectrum. Most questions are applicable for pre- and post-operative comparisons for any form of GCS	Not validated
Female Genital Self Image Score (FGSIS) [Hebernick, 2010 (20)]	Cisgender women			x		7-item scale measuring satisfaction with genitals globally, and specifically regarding sexual function and aesthetics	Best used to measure overall satisfaction with genitals	Not validated in TGNB populations Less focus on details of what contributes to sexual function or aesthetic results
Sexual Desire Inventory (SDI) [Spector, 1996 (21)]	Cisgender women			x		14-item scale measuring sexual desire	Excellent for measuring sexual desire	Not validated in TGNB populations Poor measurement of parameters other than sexual desire

Table 1 (*continued*)

Appendix 9 (continued)

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Tool	Validated populations	QoL/ psychiatric outcomes	Urologic outcomes	Sexual outcomes	Aesthetic outcomes	Description	Strengths	Weaknesses
Amsterdam Hyperactive Pelvic Floor Scale for Women (AHPFS-W) [Postma, 2013 (22)]	Cisgender women		x	x		30-item scale measuring stress symptoms [6], lower urinary tract symptoms [4], irritable bowel symptoms [4], rectal symptoms [3], and urinary tract infection symptoms [2]. Originally validated in women following sexual trauma	May capture several sexual and urinary health concerns important to transgender women	Not validated in TGNB populations Different psychosocial contributors to sexual dysfunction in transgender women than in trauma
Morrison, 2015 (23)	Not validated			x	x	*Ad-hoc* assessment of mucorrhea, dyspareunia, increased need for dilation, need for lubrication, bad odor, ability to achieve orgasm, and satisfaction with appearance, sexual function, postoperative recover, and overall satisfaction	Several outcomes highly specific to transgender women after intestinal vaginoplasty, such as need for dilation and mucorrhea	Not validated
Wierckx, 2011 (24)	Not validated			x		*Ad-hoc* questionnaire compares sexual function during masturbation and sexual activity before and after vaginoplasty: frequency of masturbation, ability and frequency of orgasm, quality of orgasm, use of vagina and clitoris during masturbation, sexual arousal	Several outcomes highly relevant to transgender women after vaginoplasty, such as use of neoclitoris and neovagina and ability to orgasm through sex or masturbation	Not validated
IPSS [Barry, 2017 (25)]	Cisgender men		x			7-item scale with 6-point Likert, measuring the frequency of urinary symptoms commonly associated with benign prostate hyperplasia, including retention, frequency, urgency, weak stream, straining, and nocturia	Validated to measure obstructive, irritative lower urinary tract symptoms	Does not include specific urologic outcomes relevant to phalloplasty, metoidioplasty, colpectomy, including ability to stand while voiding, split/spraying stream, pelvic or perineal pain with voiding

UGDS, Utrecht Gender Dysphoria Scale; UGDS-M, Utrecht Gender Dysphoria Scale-Male version; QoL, quality of life; GCS, gender confirming surgery; GNB, gender nonbinary; TGNB, transgender and gender nonbinary.

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Gender Dysphoria Questionnaire for Adults and Adolescents (GIDYQ-AA) [Deogracias, 2007 (13)]	TG (excluding GNB)	x				27-item questionnaire with a 5-point Likert scale, including 13 subjective, 9 social, 3 somatic, 2 sociologic items. Measures gender dysphoria ("I feel more like the opposite sex", "I don't feel like I am of my current sex", "Strangers treat me like a member of the opposite sex"), as well as those that are likely to be affected by GCS ("Wise for sex-reassignment surgery", "Felt more like the opposite sex", "Thought of self as opposite sex", "Not feeling like they are of their current sex")	Many [16] items are likely to be affected by gender affirming surgery: "Wise for sex-reassignment surgery", "Felt more like the opposite sex", "Thought of self as opposite sex", "Not feeling like they are of their current sex", "Satisfaction with current sex", "Dreaming of being the opposite sex", "Upset reuse of current sex on official forms", "Anatomic dysphoria", "Strangers treat person as opposite sex", "Presented self as opposite sex at parties", "Thought of self as current sex", "Friends or relatives treat person as opposite sex", "Presented self as opposite sex at work or school", "Having to work at being their current sex", "Comfort with using restrooms of biological sex"	Not validated in GNB populations Several items are better indicators of transgender identity rather than GD. Only a few questions [5] ask about feelings regarding transgender identity and GD Some questions [7] appear to conflate "sex" with "gender"
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Appendix 10

Neovaginal Dilator Training

What are dilators?

Dilators are a helpful and safe tool to help patients post-surgery maintain the depth and width of their vaginal canal.

Vaginal dilators help relax muscles of the pelvic floor, decrease pain with intercourse, decrease pain with speculum exam, and decrease anxiety associated with touch externally and internally.

Dilators can seem very intimidating but your physical therapist can help you learn how to use them correctly to improve your symptoms.

How to use the dilators?

The Transgender Surgical Team at Boston Medical Center will provide you with a set of four (4) of dilators to begin dilator training. These dilators have a set of white dots that should be facing up upon insertion and you can use them to help track depth and progress.

Dilator training will begin at the first post-surgery appointment. The nurse will remove your vaginal packing and urinary catheter and teach you how to self-dilate. Once home, be sure to set aside 15-20 minutes without distractions so that you don't feel rushed when practicing dilator training.

Some people find it beneficial to set up a relaxing environment (i.e. listen to relaxing music, mediate beforehand, and/or practice calming breathing techniques)

Be sure to clean the dilators with warm water and non-scented soap before and after use.

Find a comfortable position in on your bed, with knees bent. Place pillows on the sides of your legs to support them and relax your inner thigh muscles.

Be sure to lubricate dilator generously with water based lubricant. Also apply lubricant to the vaginal opening prior to inserting dilator.

Using a hand held mirror can help you with your first few dilation sessions.

Remember to breathe when using dilators. Often patient may hold their breath which can increase tightness of the vaginal muscles, making dilating uncomfortable.

The BMC Center for Transgender Medicine and Surgery has developed the following dilation schedule:

- First 6 weeks: 3 times per day
- Next 3 months: 2 times per day
- Next 2 months: once per day
- After 6 months post-op: 2-3 times/week

Start with the dilator you used at the first post-operative visit and insert vaginally in a downward arc with the white dots facing up. You may feel slight pressure, but pain should be minimal. Try and keep pressure toward the top of the vaginal canal rather than on the lower part, as the tissues on the lower part are fragile. Maintain a static hold on the dilator and don't twist it around. Keep the dilator at a comfortable pressure for 10-15 minutes.

Keep note of the number of dots that are visible upon insertion. It is common for the number of dots to vary slightly from session to session as the tissues are healing.

After two weeks of dilating with the same dilator you used at the first post-op visit, you can begin to think about progressing up in dilator size. Once you can insert the smallest dilator with consistency and minimal pain (0-3/10 on a pain scale), you can progress to the next size of dilator. It is helpful to do 5 minutes with the smaller size as a warm up, prior to sizing up.

At around 6 weeks post-operation, you will be scheduled to see Pelvic Floor Physical Therapy at BMC on the same day as you have a post-op follow up in Plastic Surgery. Also at this time you can begin to add in gentle penetrative, in and out, motions to your dilation. Your physical therapist can guide you with this progression, as well as other strategies to meet your specific goals.

Other helpful hints:

- Use the dilator by yourself initially, not with a partner

- Practice positive self-talk!

- Try guided imagery- think of your "happy place" or just imagine using the dilators without stress or anxiety.

Neovaginoplasty Irrigation:

The BMC CTMS team recommends daily vaginal irrigation with warm water and a teaspoon of white vinegar during the initial healing process to remove tissue and bodily fluids that may have accumulated in the vagina. Once your surgeon has determined that you are healed, we recommend irrigation on an as-needed basis, such as if you notice a slight odor that might be due to an accumulation of lubricant.

You may use either disposable irrigation ("douche") bottles or an irrigation bag (enema). Both of these should be available at your local drugstore. You can reuse the bottles a few times by rinsing them out with soap and water and letting them air dry. They will not last beyond a few uses though and you will have to get more. First fill the bottle with warm water and screw or snap the top back on. Pull up the wand until it extends fully – with most brands you hear a little click when this happens – and then insert it into your vagina. You do not need to apply lubricant as the wand is quite slim.

If you purchase an irrigation bag, it will be a one-time purchase. Fill the bag with warm water and a teaspoon vinegar, hang it up high in the shower, and insert the hose into your vagina as far as it will comfortably go. Gravity causes the water to flow through the hose and into the vagina and the water then flows out and down the drain.

Reasons to Seek Medical Advice:

For any non-urgent dilation or irrigation questions, please feel free to call the Nurse Liaison at 617.638.1827 or your primary care provider. If you have any of the symptoms listed below, call Plastic Surgery at 617.638.8419 and press #3 to be connected to the nurse on call. If you are unable to reach Plastic Surgery, come to the BMC Emergency Department if feasible, or otherwise go to your nearest emergency room.

- **A foul odor from your vagina**

Appendix 10 (continued)

- **Inability to keep fluids down for more than 24 hours**
- **Fever >100.4**
- **Chills**
- **Greenish vaginal discharge**
- **Uncontrollable pain in or around your neovagina**
- **Inability to urinate**
- **Any other concerning symptom**