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Gender Affirming Surgery

Clinical Policy Bulletins | Medical Clinical Policy Bulletins

Number: 0615

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Last Review 09/16/2022
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Definitions

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Clinical Policy Bulletin Notes

This Clinical Policy Bulletin addresses Gender Affirming Surgery.

Note: Some plans may cover gender affirming procedures in addition to the following policy. Please check the specific benefit plan documents.

State Information

California

Washington State

I. Medical Necessity

Aetna considers gender affirming surgery medically necessary when criteria for each of the following procedures is met:

A. *Requirements for Breast Removal*

1. Single letter of referral from a qualified mental health professional (see Appendix); *and*
2. Persistent, well-documented gender dysphoria (see Appendix); *and*
3. Capacity to make a fully informed decision and to consent for treatment; *and*
4. For members less than 18 years of age, completion of one year of testosterone treatment; *and*
5. If significant medical or mental health concerns are present, they must be reasonably well controlled.

Note: A trial of hormone therapy is not a pre-requisite to qualifying for a mastectomy in adults.

B. *Requirements for Breast Augmentation (Implants/Lipofilling)*

1. Single letter of referral from a qualified mental health professional (see Appendix); *and*
2. Persistent, well-documented gender dysphoria (see Appendix); *and*

3. Capacity to make a fully informed decision and to consent for treatment; *and*
4. Member is 18 years of age or older; *and*
5. Completion of one year of feminizing hormone therapy prior to breast augmentation surgery (unless the member has a medical contraindication or is otherwise medically unable to take hormones); *and*
6. If significant medical or mental health concerns are present, they must be reasonably well controlled.

C. *Requirements for Gonadectomy (Hysterectomy and Oophorectomy or Orchiectomy)*

1. Two referral letters from qualified mental health professionals, one in a purely evaluative role (see appendix); *and*
2. Persistent, well-documented gender dysphoria (see Appendix); *and*
3. Capacity to make a fully informed decision and to consent for treatment; *and*
4. Age 18 years or older; *and*
5. If significant medical or mental health concerns are present, they must be reasonably well controlled; *and*
6. Twelve months of continuous hormone therapy as appropriate to the member's gender goals (unless the member has a medical contraindication or is otherwise unable or unwilling to take hormones).

D. *Requirements for Genital Reconstructive Surgery*

(I.e., vaginectomy, urethroplasty, metoidioplasty, phalloplasty, scrotoplasty, placement of a testicular prosthesis and erectile prosthesis, penectomy, vaginoplasty, labiaplasty, and clitoroplasty)

1. Two referral letters from qualified mental health professionals, one in a purely evaluative role (see appendix); *and*

2. Persistent, well-documented gender dysphoria (see Appendix); *and*
3. Capacity to make a fully informed decision and to consent for treatment; *and*
4. Age 18 years and older; *and*
5. If significant medical or mental health concerns are present, they must be reasonably well controlled; *and*
6. Twelve months of continuous hormone therapy as appropriate to the member's gender goals (unless the member has a medical contraindication or is otherwise unable or unwilling to take hormones); *and*
7. Twelve months of living in a gender role that is congruent with their gender identity (real life experience).

Note on gender specific services for the transgender community: Gender-specific services may be medically necessary for transgender persons appropriate to their anatomy. Examples include:

1. Breast cancer screening may be medically necessary for transmasculine persons who have not undergone chest masculinization surgery;
2. Prostate cancer screening may be medically necessary for transfeminine persons who have retained their prostate.

Aetna considers gonadotropin-releasing hormone medically necessary to suppress puberty in trans identified adolescents if they meet World Professional Association for Transgender Health (WPATH) criteria (see CPB 0501 - Gonadotropin-Releasing Hormone Analogs and Antagonists (../500_599/0501.html)).

II. **Not Medically Necessary**

Aetna considers more than one breast augmentation not medically necessary. This does not include the medically necessary replacement of breast implants (see CPB 0142 - Breast Implant Removal (../100_199/0142.html)).

Aetna considers reversal of gender affirming surgery for gender dysphoria not medically necessary.

Aetna considers the following procedures that may be performed as a component of a gender transition as not medically necessary and cosmetic (not an all-inclusive list) (see also CPB 0031 - Cosmetic Surgery (../1_99/0031.html)):

- Abdominoplasty
- Blepharoplasty
- Body contouring (liposuction of waist)
- Brow lift
- Calf implants
- Cheek/malar implants
- Chin/nose implants
- Collagen injections
- Construction of a clitoral hood
- Drugs for hair loss or growth
- Face lifting
- Facial bone reduction
- Facial feminization and masculinization surgery
- Feminization of torso
- Forehead lift
- Hand feminization and masculinization
- Jaw reduction (jaw contouring)

- Hair removal (e.g., electrolysis, laser hair removal) (Exception: A limited number of electrolysis or laser hair removal sessions are considered medically necessary for skin graft preparation for genital surgery)
- Hair transplantation
- Lip enhancement
- Lip reduction
- Liposuction
- Masculinization of torso
- Mastopexy
- Neck tightening
- Nipple reconstruction
- Nose implants
- Pectoral implants
- Pitch-raising surgery
- Removal of redundant skin
- Rhinoplasty
- Skin resurfacing (dermabrasion/chemical peel)
- Tracheal shave (reduction thyroid chondroplasty)
- Voice modification surgery (laryngoplasty, cricothyroid approximation or shortening of the vocal cords)
- Voice therapy/voice lessons.

III. Related Policies

- CPB 0031 - Cosmetic Surgery (../1_99/0031.html)
- CPB 0501 - Gonadotropin-Releasing Hormone Analogs and Antagonists (../500_599/0501.html)

CPT Codes / HCPCS Codes / ICD-10 Codes

Information in the [brackets] below has been added for clarification purposes. Codes requiring a 7th character are represented by "+":

Code	Code Description
CPT codes covered if selection criteria are met:	
13131	Repair, complex, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; 1.1 cm to 2.5 cm
13132	Repair, complex, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; 2.6 cm to 7.5 cm
13133	Repair, complex, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; each additional 5 cm or less
13160	Secondary closure of surgical wound or dehiscence, extensive or complicated
14021	Adjacent tissue transfer or rearrangement, scalp, arms and/or legs; defect 10.1 sq cm to 30.0 sq cm
14040	Adjacent tissue transfer or rearrangement, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; defect 10 sq cm or less
14041	Adjacent tissue transfer or rearrangement, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; defect 10.1 sq cm to 30.0 sq cm
14301	Adjacent tissue transfer or rearrangement, any area; defect 30.1 sq cm to 60.0 sq cm
14302	Adjacent tissue transfer or rearrangement, any area; each additional 30.0 sq cm, or part thereof

Code	Code Description
15002 -15003	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, trunk, arms, legs; first 100 sq cm or 1% of body area of infants and children. + each additional
15004	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet and/or multiple digits; first 100 sq cm or 1% of body area of infants and children
15100 - 15101	Split-thickness autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children + each additional 1%
15115	Epidermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15120	Split-thickness autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15240 - 15241	Full thickness graft, free, including direct closure of donor site, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands, and/or feet; 20 sq cm or less. + each additional
15273 -15274	Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children + each additional 1%
15275	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; first 25 sq cm or less wound surface area

Code	Code Description
15277 - 15278	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children. + each additional 1%
15574	15574
15734	Muscle, myocutaneous, or fasciocutaneous flap; trunk
15738	Muscle, myocutaneous, or fasciocutaneous flap; lower extremity
15740	Flap; island pedicle requiring identification and dissection of an anatomically named axial vessel
15750	Flap; neurovascular pedicle
15757	Free skin flap with microvascular anastomosis
15771	Grafting of autologous fat harvested by liposuction technique to trunk, breasts, scalp, arms, and/or legs; 50 cc or less injectate [covered for breast augmentation only]
15772	Grafting of autologous fat harvested by liposuction technique to trunk, breasts, scalp, arms, and/or legs; each additional 50 cc injectate, or part thereof (List separately in addition to code for primary procedure) [covered for breast augmentation only]
15773	Grafting of autologous fat harvested by liposuction technique to face, eyelids, mouth, neck, ears, orbits, genitalia, hands, and/or feet; 25 cc or less injectate
15860	Intravenous injection of agent (eg, fluorescein) to test vascular flow in flap or graft
17380	Electrolysis epilation, each 30 minutes [Check benefits]
17999	Unlisted procedure, skin, mucous membrane and subcutaneous tissue [laser hair removal] [Check benefits]
19318	Reduction mammaplasty

Code	Code Description
19325	Breast augmentation with implant
19350	Nipple/areola reconstruction [only covered when not performed at time of original breast surgery]
19357	Tissue expander placement in breast reconstruction, including sub sequent expansion(s) can be authorized for gender affirmation coverage
40808	Biopsy, vestibule of mouth
40818	Excision of mucosa of vestibule of mouth as donor graft
49329	Unlisted laparoscopy procedure, abdomen, peritoneum and omentum [graft from colon for vaginoplasty]
51040	Cystostomy, cystotomy with drainage
51102	Aspiration of bladder; with insertion of suprapubic catheter
52005	Cystourethroscopy, with ureteral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service
53400	Urethroplasty; first stage, for fistula, diverticulum, or stricture (eg, Johannsen type)
53405	Urethroplasty; second stage (formation of urethra), including urinary diversion
53410	Urethroplasty, 1-stage reconstruction of male anterior urethra
53430	Urethroplasty, reconstruction of female urethra
53520	Closure of urethrostomy or urethrocutaneous fistula, male (separate procedure)
54120	Amputation of penis; partial
54125	Amputation of penis; complete
54235	Injection of corpora cavernosa with pharmacologic agent(s) (eg, papaverine, phentolamine)

Code	Code Description
54300	Plastic operation of penis for straightening of chordee (eg, hypospadias), with or without mobilization of urethra
54304	Plastic operation on penis for correction of chordee or for first stage hypospadias repair with or without transplantation of prepuce and/or skin flaps
54336	1-stage perineal hypospadias repair requiring extensive dissection to correct chordee and urethroplasty by use of skin graft tube and/or island flap
54400 - 54417	Penile prosthesis
54520	Orchiectomy, simple (including subcapsular), with or without testicular prosthesis, scrotal or inguinal approach
54660	Insertion of testicular prosthesis (separate procedure)
54690	Laparoscopic, surgical; orchiectomy
55150	Resection of scrotum
55175	Scrotoplasty; simple
55180	complicated
55970	Intersex surgery; male to female [a series of staged procedures that includes male genitalia removal, penile dissection, urethral transposition, creation of vagina and labia with stent placement]
55980	female to male [a series of staged procedures that include penis and scrotum formation by graft, and prostheses placement]
56625	Vulvectomy simple; complete
56800	Plastic repair of introitus
56805	Clitoroplasty for intersex state
56810	Perineoplasty, repair of perineum, nonobstetrical (separate procedure)

Code	Code Description
57106, 57110	Vaginectomy, partial removal of vaginal wall, or complete removal of vaginal wall
57282	Colpopexy, vaginal; extra-peritoneal approach (sacrospinous, iliococcygeus)
57291 - 57292	Construction of artificial vagina
57335	Vaginoplasty for intersex state
57425	Laparoscopy, surgical, colpopexy (suspension of vaginal apex)
58150, 58180, 58260 - 58262, 58275 - 58291, 58541 - 58544, 58550 - 58554	Hysterectomy
58570 - 58573	Laparoscopy, surgical, with total hysterectomy
58661	Laparoscopy, surgical; with removal of adnexal structures (partial or total oophorectomy and/or salpingectomy)
58720	Salpingo-oophorectomy, complete or partial, unilateral or bilateral
58999	Unlisted procedure, female genital system (nonobstetrical) [metoidioplasty]
64708	Neuroplasty, major peripheral nerve, arm or leg, open; other than specified
64856	Suture of major peripheral nerve, arm or leg, except sciatic; including transposition
64859	Suture of each additional major peripheral nerve
64874	Suture of nerve; requiring extensive mobilization, or transposition of nerve
64910	Nerve repair; with synthetic conduit or vein allograft (eg, nerve tube), each nerve
CPT codes not covered for indications listed in the CPB [considered not medically necessary and cosmetic]:	
11950 - 11954	Subcutaneous injection of filling material (e.g., collagen)

Code	Code Description
15200	Full thickness graft, free, including direct closure of donor site, trunk; 20 sq cm or less [nipple reconstruction]
15775	Punch graft for hair transplant; 1 to 15 punch grafts
15776	Punch graft for hair transplant; more than 15 punch grafts
15780 - 15787	Dermabrasion
15788 - 15793	Chemical peel
15820 - 15823	Blepharoplasty
15824 - 15828	Rhytidectomy [face-lifting]
15830 - 15839	Excision, excessive skin and subcutaneous tissue (includes lipectomy); abdomen, infraumbilical panniculectomy
15876 - 15879	Suction assisted lipectomy
17380	Electrolysis epilation, each 30 minutes
19301	Mastectomy, partial (eg, lumpectomy, tylectomy, quadrantectomy, segmentectomy)
19303	Mastectomy, simple, complete
19316	Mastopexy
19340	Immediate insertion of breast prosthesis following mastopexy, mastectomy or in reconstruction
19342	Delayed insertion of breast prosthesis following mastopexy, mastectomy or in reconstruction
20999	Unlisted procedure, musculoskeletal system, general [unlisted augmentation] [check benefits]
21087	Nasal prosthesis
21120 - 21123	Genioplasty

Code	Code Description
21125 - 21127	Augmentation, mandibular body or angle; prosthetic material or with bone graft, onlay or interpositional (includes obtaining autograft)
21193	Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; without bone graft
21194	with bone graft (includes obtaining graft)
21195	Reconstruction of mandibular rami and/or body, sagittal split; without internal rigid fixation
21196	with internal rigid fixation
21208	Osteoplasty, facial bones; augmentation (autograft, allograft, or prosthetic implant)
21210	Graft, bone; nasal, maxillary or malar areas (includes obtaining graft)
21270	Malar augmentation, prosthetic material
30400 - 30420	Rhinoplasty; primary
30430 - 30450	Rhinoplasty; secondary
31599	Unlisted procedure, larynx [thyroid chondroplasty and tracheal shave] [voice modification surgery] [check benefits]
31899	Unlisted procedure, trachea, bronchi [thyroid chondroplasty and tracheal shave] [augmentation thyroid chondroplasty (thyroid cartilage augmentation)] [check benefits]
40799	Unlisted procedure, lips [lip shortening] [check benefits]
67900	Repair of brow ptosis (supraciliary, mid-forehead or coronal approach)
92507	Treatment of speech, language, voice, communication, and/or auditory processing disorder; individual
92508	Treatment of speech, language, voice, communication, and/or auditory processing disorder; group, two or more individuals

Code	Code Description
Other CPT codes related to the CPB:	
11980	Subcutaneous hormone pellet implantation (implantation of estradiol and/or testosterone pellets beneath the skin)
+90785	Interactive complexity (List separately in addition to the code for primary procedure)
90832 - 90838	Psychotherapy
96372	Therapeutic, prophylactic, or diagnostic injection (specify substance of drug); subcutaneous or intramuscular
HCPCS codes covered if selection criteria are met:	
C1789	Prosthesis, breast (implantable)
C1813	Prosthesis, penile, inflatable
C2622	Prosthesis, penile, non-inflatable
J1071	Injection, testosterone cypionate, 1 mg
J3121	Injection, testosterone enanthate, 1 mg
J3145	Injection, testosterone undecanoate, 1 mg
J1950	Injection, leuprolide acetate (for depot suspension), per 3.75 mg
J9202	Goserelin acetate implant, per 3.6 mg
J9217	Leuprolide acetate (for depot suspension), 7.5 mg
J9218	Leuprolide acetate, per 1 mg
J9219	Leuprolide acetate implant, 65 mg
L8600	Implantable breast prosthesis, silicone or equal
S0189	Testosterone pellet, 75 mg
HCPCS codes not covered for indications listed in the CPB:	

Code	Code Description
G0153	Services performed by a qualified speech-language pathologist in the home health or hospice setting, each 15 minutes
L8499	Unlisted procedure for miscellaneous prosthetic services [prosthetic implant] [check benefits]
L8699	Prosthetic implant, not otherwise specified [check benefits]
S9128	Speech therapy, in the home, per diem
ICD-10 codes covered if selection criteria are met:	
F64.0 - F64.1	Transexualism and dual role transvestism
F64.8	Other gender identity disorders
F64.9	Gender identity disorder, unspecified
Z87.890	Personal history of sex reassignment
ICD-10 codes not covered for indications listed in the CPB:	
F64.2	Gender identity disorder of childhood

Background

Gender dysphoria refers to discomfort or distress that is caused by a discrepancy between an individual's gender identity and the gender assigned at birth (and the associated gender role and/or primary and secondary sex characteristics). A diagnosis of gender dysphoria requires a marked difference between the individual's expressed/experienced gender and the gender others

would assign him or her, and it must continue for at least six months. This condition may cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

Gender affirming surgery is performed to change primary and/or secondary sex characteristics. For transfeminine (assigned male at birth) gender transition, surgical procedures may include genital reconstruction (vaginoplasty, penectomy, orchidectomy, clitoroplasty), breast augmentation (implants, lipofilling), and cosmetic surgery (facial reshaping, rhinoplasty, abdominoplasty, thyroid chondroplasty (laryngeal shaving), voice modification surgery (vocal cord shortening), hair transplants) (Day, 2002). For transmasculine (assigned female at birth) gender transition, surgical procedures may include mastectomy, genital reconstruction (phalloplasty, genitoplasty, hysterectomy, bilateral oophorectomy), mastectomy, and cosmetic procedures to enhance male features such as pectoral implants and chest wall recontouring (Day, 2002).

The criterion noted above for some types of genital surgeries – i.e., that patients engage in 12 continuous months of living in a gender role that is congruent with their gender identity – is based on expert clinical consensus that this experience provides ample opportunity for patients to experience and socially adjust in their desired gender role, before undergoing irreversible surgery (Coleman, et al., 2011).

It is recommended that transfeminine persons undergo feminizing hormone therapy (minimum 12 months) prior to breast augmentation surgery. The purpose is to maximize breast growth in order to obtain better surgical (aesthetic) results.

In addition to hormone therapy and gender affirming surgery, psychological adjustments are necessary in affirming sex. Treatment should focus on psychological adjustment, with hormone therapy and gender affirming surgery being viewed as confirmatory procedures dependent on adequate psychological adjustment. Mental health care may need to be continued

after gender affirming surgery. The overall success of treatment depends partly on the technical success of the surgery, but more crucially on the psychological adjustment of the trans identified person and the support from family, friends, employers and the medical profession.

Nakatsuka (2012) noted that the third versions of the guideline for treatment of people with gender dysphoria (GD) of the Japanese Society of Psychiatry and Neurology recommends that feminizing/masculinizing hormone therapy and genital surgery should not be carried out until 18 years old and 20 years old, respectively. On the other hand, the sixth (2001) and the seventh (2011) versions of the standards of care for the health of transsexual, transgender, and gender non-conforming people of World Professional Association for Transgender Health (WPATH) recommend that transgender adolescents (Tanner stage 2, [mainly 12 to 13 years of age]) are treated by the endocrinologists to suppress puberty with gonadotropin-releasing hormone (GnRH) agonists until age 16 years old, after which gender-affirming hormones may be given. A questionnaire on 181 people with GID diagnosed in the Okayama University Hospital (Japan) showed that female to male (FTM) trans identified individuals hoped to begin masculinizing hormone therapy at age of 15.6 +/- 4.0 (mean +/- S.D.) whereas male to female (MTF) trans identified individuals hoped to begin feminizing hormone therapy as early as age 12.5 +/- 4.0, before presenting secondary sex characters. After confirmation of strong and persistent trans gender identification, adolescents with GD should be treated with gender-affirming hormone or puberty-delaying hormone to prevent developing undesired sex characters. These treatments may prevent transgender adolescents from attempting suicide, suffering from depression, and refusing to attend school.

Spack (2013) stated that GD is poorly understood from both mechanistic and clinical standpoints. Awareness of the condition appears to be increasing, probably because of greater societal acceptance and available hormonal treatment. Therapeutic options include hormone and surgical treatments but may be limited by insurance coverage because costs are high. For patients seeking MTF affirmation, hormone treatment includes estrogens, finasteride, spironolactone, and GnRH analogs. Surgical options include feminizing genital and facial surgery, breast

augmentation, and various fat transplantations. For patients seeking a FTM gender affirmation, medical therapy includes testosterone and GnRH analogs and surgical therapy includes mammoplasty and phalloplasty. Medical therapy for both FTM and MTF can be started in early puberty, although long-term effects are not known. All patients considering treatment need counseling and medical monitoring.

Leinung and colleagues (2013) noted that the Endocrine Society's recently published clinical practice guidelines for the treatment of transgender persons acknowledged the need for further information on transgender health. These investigators reported the experience of one provider with the endocrine treatment of transgender persons over the past 2 decades. Data on demographics, clinical response to treatment, and psychosocial status were collected on all transgender persons receiving gender-affirming hormone therapy since 1991 at the endocrinology clinic at Albany Medical Center, a tertiary care referral center serving upstate New York. Through 2009, a total 192 MTF and 50 FTM transgender persons were seen. These patients had a high prevalence of mental health and psychiatric problems (over 50 %), with low rates of employment and high levels of disability. Mental health and psychiatric problems were inversely correlated with age at presentation. The prevalence of gender affirming surgery was low (31 % for MTF). The number of persons seeking treatment has increased substantially in recent years. Gender-affirming hormone therapy achieves very good results in FTM persons and is most successful in MTF persons when initiated at younger ages. The authors concluded that transgender persons seeking hormonal therapy are being seen with increasing frequency. The dysphoria present in many transgender persons is associated with significant mood disorders that interfere with successful careers. They stated that starting therapy at an earlier age may lessen the negative impact on mental health and lead to improved social outcomes.

Meyer-Bahlburg (2013) summarized for the practicing endocrinologist the current literature on the psychobiology of the development of gender identity and its variants in individuals with disorders of sex development or with transgenderism. Gender reassignment remains the treatment of

choice for strong and persistent gender dysphoria in both categories, but more research is needed on the short-term and long-term effects of puberty-suppressing medications and cross-sex hormones on brain and behavior.

Irreversible Surgical Interventions for Minors

The World Professional Association for Transgender Health (WPATH) recommendations version 7 (Coleman, et al., 2011) states, regarding irreversible surgical interventions, that "[g]enital surgery should not be carried out until (i) patients reach the legal age of majority in a given country, and (ii) patients have lived continuously for at least 12 months in the gender role that is congruent with their gender identity. The age threshold should be seen as a minimum criterion and not an indication in and of itself for active intervention." The WPATH guidelines state that "Chest surgery in FtM patients could be carried out earlier, preferably after ample time of living in the desired gender role and after one year of testosterone treatment. The intent of this suggested sequence is to give adolescents sufficient opportunity to experience and socially adjust in a more masculine gender role, before undergoing irreversible surgery. However, different approaches may be more suitable, depending on an adolescent's specific clinical situation and goals for gender identity expression."

Note on Breast Reduction/Mastectomy and Nipple Reconstruction

The CPT codes for mastectomy (CPT codes 19303) are for breast cancer, and are not appropriate to bill for reduction mammaplasty for female to male (transmasculine) gender affirmation surgery. CPT 2020 states that "Mastectomy procedures (with the exception of gynecomastia [19300]) are performed either for treatment or prevention of breast cancer." CPT 2020 also states that "Code 19303 describes total removal of ipsilateral breast tissue with or without removal of skin and/or nipples (eg, nipple-sparing), for treatment or prevention of breast cancer." There are important differences between a mastectomy for breast cancer and a mastectomy for gender reassignment. The former requires careful attention to removal of all breast tissue to reduce the risk of cancer.

By contrast, careful removal of all breast tissue is not essential in mastectomy for gender reassignment. In mastectomy for gender reassignment, the nipple areola complex typically can be preserved.

Some have tried to justify routinely billing CPT code 19350 for nipple reconstruction at the time of mastectomy for gender reassignment based upon the frequent need to reduce the size of the areola to give it a male appearance. However, the nipple reconstruction as defined by CPT code 19350 describes a much more involved procedure than areola reduction. The typical patient vignette for CPT code 19350, according to the AMA, is as follows: “The patient is measured in the standing position to ensure even balanced position for a location of the nipple and areola graft on the right breast. Under local anesthesia, a Skate flap is elevated at the site selected for the nipple reconstruction and constructed. A full-thickness skin graft is taken from the right groin to reconstruct the areola. The right groin donor site is closed primarily in layers.”

The AMA vignette for CPT code 19318 (reduction mammaplasty) clarifies that this CPT code includes the work that is necessary to reposition and reshape the nipple to create an aesthetically pleasing result, as is necessary in female to male breast reduction. "The physician reduces the size of the breast, removing wedges of skin and breast tissue from a female patient. The physician makes a circular skin incision above the nipple, in the position to which the nipple will be elevated. Another skin incision is made around the circumference of the nipple. Two incisions are made from the circular cut above the nipple to the fold beneath the breast, one on either side of the nipple, creating a keyhole shaped skin and breast incision. Wedges of skin and breast tissue are removed until the desired size is achieved. Bleeding vessels may be ligated or cauterized. The physician elevates the nipple and its pedicle of subcutaneous tissue to its new position and sutures the nipple pedicle with layered closure. The remaining incision is repaired with layered closure" (EncoderPro, 2019). CPT code 19350 does not describe the work that that is being done, because that code describes the actual construction of a new nipple.

Thus, Aetna considers nipple reconstruction, as defined by CPT code 19350, as cosmetic/not medically necessary for mastectomy for transmasculine gender reassignment, and that CPT code 19318 includes the extra work that may be necessary to reshape the nipple and create an aesthetically pleasing male chest.

Vulvoplasty Versus Vaginoplasty as Gender-Affirming Genital Surgery for Transgender Women

Jiang and colleagues (2018) noted that gender-affirming vaginoplasty aims to create the external female genitalia (vulva) as well as the internal vaginal canal; however, not all patients desire nor can safely undergo vaginal canal creation. These investigators described the factors influencing patient choice or surgeon recommendation of vulvoplasty (creation of the external appearance of female genitalia without creation of a neovaginal canal) and evaluated the patient's satisfaction with this choice. Gender-affirming genital surgery consults were reviewed from March 2015 until December 2017, and patients scheduled for or who had completed vulvoplasty were interviewed by telephone. These investigators reported demographic data and the reasons for choosing vulvoplasty as gender-affirming surgery for patients who either completed or were scheduled for surgery, in addition to patient reports of satisfaction with choice of surgery, satisfaction with the surgery itself, and sexual activity after surgery. A total of 486 patients were seen in consultation for trans-feminine gender-affirming genital surgery: 396 requested vaginoplasty and 39 patients requested vulvoplasty; 30 Patients either completed or are scheduled for vulvoplasty. Vulvoplasty patients were older and had higher body mass index (BMI) than those seeking vaginoplasty. The majority (63 %) of the patients seeking vulvoplasty chose this surgery despite no contraindications to vaginoplasty. The remaining patients had risk factors leading the surgeon to recommend vulvoplasty. Of those who completed surgery, 93 % were satisfied with the surgery and their decision for vulvoplasty. The authors concluded that this was the first study of factors impacting a patient's choice of or a surgeon's recommendation for vulvoplasty over vaginoplasty as gender-affirming genital surgery; it also was the first reported series of patients undergoing vulvoplasty only.

Drawbacks of this study included its retrospective nature, non-validated questions, short-term follow-up, and selection bias in how vulvoplasty was offered. Vulvoplasty is a form of gender-affirming feminizing surgery that does not involve creation of a neovagina, and it is associated with high satisfaction and low decision regret.

Autologous Fibroblast-Seeded Amnion for Reconstruction of Neo-vagina in Transfeminine Reassignment Surgery

Seyed-Forootan and colleagues (2018) stated that plastic surgeons have used several methods for the construction of neo-vaginas, including the utilization of penile skin, free skin grafts, small bowel or recto-sigmoid grafts, an amnion graft, and cultured cells. These researchers compared the results of amnion grafts with amnion seeded with autograft fibroblasts. Over 8 years, these investigators compared the results of 24 male-to-female transsexual patients retrospectively based on their complications and levels of satisfaction; 16 patients in group A received amnion grafts with fibroblasts, and the patients in group B received only amnion grafts without any additional cellular lining. The depths, sizes, secretions, and sensations of the vaginas were evaluated. The patients were monitored for any complications, including over-secretion, stenosis, stricture, fistula formation, infection, and bleeding. The mean age of group A was 28 ± 4 years and group B was 32 ± 3 years. Patients were followed-up from 30 months to 8 years (mean of 36 ± 4) after surgery. The depth of the vaginas for group A was 14 to 16 and 13 to 16 cm for group B. There was no stenosis in neither group. The diameter of the vaginal opening was 34 to 38 mm in group A and 33 to 38 cm in group B. These researchers only had 2 cases of stricture in the neo-vagina in group B, but no stricture was recorded for group A. All of the patients had good and acceptable sensation in the neo-vagina; 75 % of patients had sexual experience and of those, 93.7 % in group A and 87.5% in group B expressed satisfaction. The authors concluded that the creation of a neo-vaginal canal and its lining with allograft amnion and seeded autologous fibroblasts is an effective method for imitating a normal vagina. The size of neo-vagina, secretion, sensation, and orgasm was good and proper. More than 93.7 % of patients had satisfaction with sexual intercourse. They stated that amnion seeded with fibroblasts extracted from the patient's

own cells will result in a vagina with the proper size and moisture that can eliminate the need for long-term dilatation. The constructed vagina has a 2-layer structure and is much more resistant to trauma and laceration. No cases of stenosis or stricture were recorded. Level of Evidence = IV. These preliminary findings need to be validated by well-designed studies.

Pitch-Raising Surgery in Transfeminine Persons

Van Damme and colleagues (2017) reviewed the evidence of the effectiveness of pitch-raising surgery performed in male-to-female transsexuals. These investigators carried out a search for studies in PubMed, Web of Science, Science Direct, EBSCOhost, Google Scholar, and the references in retrieved manuscripts, using as keywords "transsexual" or "transgender" combined with terms related to voice surgery. They included 8 studies using cricothyroid approximation, 6 studies using anterior glottal web formation, and 6 studies using other surgery types or a combination of surgical techniques, leading to 20 studies in total. Objectively, a substantial rise in post-operative fundamental frequency was identified. Perceptually, mainly laryngeal web formation appeared risky for decreasing voice quality. The majority of patients appeared satisfied with the outcome. However, none of the studies used a control group and randomization process. The authors concluded that future research needs to investigate long-term effects of pitch-raising surgery using a stronger study design.

Azul and associates (2017) evaluated the currently available discursive and empirical data relating to those aspects of trans-masculine people's vocal situations that are not primarily gender-related, and identified restrictions to voice function that have been observed in this population, and made suggestions for future voice research and clinical practice. These researchers conducted a comprehensive review of the voice literature. Publications were identified by searching 6 electronic databases and bibliographies of relevant articles. A total of 22 publications met inclusion criteria. Discourses and empirical data were analyzed for factors and practices that impact on voice function and for indications of voice function-related problems in trans-masculine people. The quality of the evidence was appraised. The extent and quality of studies

investigating trans-masculine people's voice function was found to be limited. There was mixed evidence to suggest that trans-masculine people might experience restrictions to a range of domains of voice function, including vocal power, vocal control/stability, glottal function, pitch range/variability, vocal endurance, and voice quality. The authors concluded that more research into the different factors and practices affecting trans-masculine people's voice function that took account of a range of parameters of voice function and considered participants' self-evaluations is needed to establish how functional voice production can be best supported in this population.

Facial Feminization Surgery

Raffaini and colleagues (2016) stated that gender dysphoria refers to the discomfort and distress that arise from a discrepancy between a person's gender identity and sex assigned at birth. The treatment plan for gender dysphoria varies and can include psychotherapy, hormone treatment, and gender affirmation surgery, which is, in part, an irreversible change of sexual identity. Procedures for transformation to the female sex include facial feminization surgery, vaginoplasty, clitoroplasty, and breast augmentation. Facial feminization surgery can include forehead re-modeling, rhinoplasty, mentoplasty, thyroid chondroplasty, and voice alteration procedures. These investigators reported patient satisfaction following facial feminization surgery, including outcome measurements after forehead slippage and chin re-modeling. A total of 33 patients between 19 and 40 years of age were referred for facial feminization surgery between January of 2003 and December of 2013, for a total of 180 procedures. Surgical outcome was analyzed both subjectively through questionnaires administered to patients and objectively by serial photographs. Most facial feminization surgery procedures could be safely completed in 6 months, barring complications. All patients showed excellent cosmetic results and were satisfied with their procedures. Both frontal and profile views achieved a loss of masculine features. The authors concluded that patient satisfaction following facial feminization surgery was high; they stated that the reduction of gender dysphoria had psychological and social benefits and significantly affected patient outcome. The level of evidence of this study was IV.

Morrison and associates (2018) noted that facial feminization surgery encompasses a broad range of cranio-maxillofacial surgical procedures designed to change masculine facial features into feminine features. The surgical principles of facial feminization surgery could be applied to male-to-female transsexuals and anyone desiring feminization of the face. Although the prevalence of these procedures is difficult to quantify, because of the rising prevalence of transgenderism (approximately 1 in 14,000 men) along with improved insurance coverage for gender-confirming surgery, surgeons versed in techniques, outcomes, and challenges of facial feminization surgery are needed. These researchers appraised the current facial feminization surgery literature. They carried out a comprehensive literature search of the Medline, PubMed, and Embase databases was conducted for studies published through October 2014 with multiple search terms related to facial feminization. Data on techniques, outcomes, complications, and patient satisfaction were collected. A total of 15 articles were selected and reviewed from the 24 identified, all of which were either retrospective or case series/reports. Articles covered a variety of facial feminization procedures. A total of 1,121 patients underwent facial feminization surgery, with 7 complications reported, although many articles did not explicitly comment on complications. Satisfaction was high, although most studies did not use validated or quantified approaches to address satisfaction. The authors concluded that facial feminization surgery appeared to be safe and satisfactory for patients. These researchers stated that further studies are needed to better compare different techniques to more robustly establish best practices; prospective studies and patient-reported outcomes are needed to establish quality-of-life (QOL) outcomes for patients.

In a systematic review, Gorbea et al (2021) provided a portrait of gender affirmation surgery (GAS) insurance coverage across the U.S., with attention to procedures of the head and neck. State policies on transgender care for Medicaid insurance providers were collected for all 50 states. Each state's policy on GAS and facial gender affirmation surgery (FGAS) was examined. The largest medical insurance companies in the U.S. were identified using the National Association of Insurance Commissioners Market Share report. Policies of the top 49 primary commercial medical insurance companies were examined. Medicaid policy reviews found that 18 states offer some level of gender-affirming coverage for their patients, but only 3 include FGAS (17 %); 13

states prohibit Medicaid coverage of all transgender surgery, and 19 states have no published gender-affirming medical care coverage policy; 92 % of commercial medical insurance providers had a published policy on GAS coverage. Genital reconstruction was described as a medically necessary aspect of transgender care in 100 % of the commercial policies reviewed; 93 % discussed coverage of FGAS, but 51 % considered these procedures cosmetic. Thyroid chondroplasty (20 %) was the most commonly covered FGAS procedure. Mandibular and frontal bone contouring, rhinoplasty, blepharoplasty, and facial rhytidectomy were each covered by 13 % of the medical policies reviewed. The authors concluded that while certain surgical aspects of gender-affirming medical care are nearly ubiquitously covered by commercial insurance providers, FGAS is considered cosmetic by most Medicaid and commercial insurance providers. Level of Evidence = V.

Hohman and Teixeira (2022) stated that with respect to gender affirmation procedures for the face, the majority of interventions will occur in patients transitioning from male to female, i.e., transgender women. While there are slightly more transgender women than transgender men in the population (33 % transgender women, 29 % transgender men, 35 % non-binary, 3 % cross-dressers, according to the USTS), the reason that more females require surgery than males is that testosterone therapy typically produces enough changes in secondary sex characteristics of the face (growth of facial hair, thickening of the skin, increase in frontal bossing, lowering of the voice, etc.) that surgery is not necessary . In some cases, placement of implants or fat transfer can increase volume in the lower 1/3 of the face and contribute to masculinization. Still, the primary area of focus for facial feminization is generally the upper 1/3. Feminization of the upper 1/3 of the face often requires several techniques to be applied in combination: The advancement of the hairline, hair transplantation, brow-lifting, and reduction of frontal bossing or "frontal cranioplasty". While the advancement of a scalp flap, hair transplant, and pretrichial brow-lifting are commonly employed cosmetic surgery interventions, frontal cranioplasty bears special consideration. Several methods of reducing the brow's prominence are often described as type 1, 2, and 3 frontal cranioplasties. Type 1 cranioplasty reduces the supra-orbital ridge's protrusion, usually using a drill, including decreasing the thickness of the anterior table of the frontal sinus.

This technique is the simplest, but it is only effective in patients with either a very thick anterior frontal sinus table or an absent pneumatized frontal sinus. Type 2 cranioplasty involves augmentation of the forehead's convexity using bone cement or methyl methacrylate in addition to a reduction of the supra-orbital ridge with a drill. Type 3 cranioplasty is advocated by many prominent facial feminization surgeons and consists of removal of the anterior table of the frontal sinus, thinning of the bone flap, and replacement of that bone onto the frontal sinus but in a more recessed position, in addition to a reduction of the remainder of the supra-orbital ridge. An alternative to removal and recession of the frontal sinus's anterior table is to thin the bone with a drill and then fracture it in a controlled fashion to produce the desired contour, which is also performed routinely by some authors.

Reversal of Gender Affirming Surgery for Gender Dysphoria

The WPATH Standards of Care (SOC) for the Health of Transsexual, Transgender, and Gender Nonconforming Peoples describe reversible and irreversible interventions, and the ideal order and timing of these approaches. Surgery as an intervention is considered irreversible by WPATH.

Forehead Feminization Cranioplasty

Eggerstedt and colleagues (2020) stated that forehead feminization cranioplasty (FFC) is an important component of gender-affirming surgery and has become increasingly popular in recent years. However, there is little objective evidence for the procedure's safety and clinical impact via patient-reported outcome measures (PROMs). In a systematic review, these researchers determined what complications are observed following FFC, the relative frequency of complications by surgical technique, and what impact the procedure has on patient's QOL. They carried out database searches in PubMed/Medline, Scopus, CINAHL, Cochrane CENTRAL, Cochrane Database of Systematic Reviews, and PsycINFO. The search terms included variations of forehead setback/FFC. Both controlled vocabularies (i.e., MeSH and CINAHL's Suggested Subject Terms) and keywords in the title or abstract fields were searched. Two independent

reviewers screened the titles and abstracts of all articles; and 2 independent surgeon reviewers examined the full text of all included articles, and relevant data points were extracted. Main outcomes and measures included complications and complication rate observed following FFC. Additional outcome measures were the approach used, concurrent procedures carried out, and the use and findings of a PROM. A total of 10 articles describing FFC were included, entailing 673 patients. The overall pooled complication rate was 1.3 %; PROMs were used in 50 % of studies, with no standardization among studies. The authors concluded that complications following FFC were rare and infrequently required reoperation. Moreover, these researchers stated that further studies into standardized and validated PROMs in facial feminization patients are needed. Level of Evidence = III.

Hand Feminization and Masculinization

Lee and colleagues (2021) noted that anatomical characteristics that are incongruent with an individual's gender identity can cause significant gender dysphoria. Hands exhibit prominent dimorphic sexual features, but despite their visibility, there are limited studies examining gender affirming procedures for the hands. These researchers examined the anatomical features that define feminine and masculine hands, the surgical and non-surgical approaches for feminization and masculinization of the hand; and adapted established aesthetic hand techniques for gender affirming care. They carried out a comprehensive database search of PubMed, Embase OVID and SCOPUS to identify articles on the characterization of feminine or masculine hands, hand treatments related to gender affirmation, and articles related to techniques for hand feminization and masculinization in the non-transgender population. From 656 possibly relevant articles, 42 met the inclusion criteria for the current literature search. There is currently no medical literature specifically examining the surgical or non-surgical options for hand gender affirmation. The available techniques for gender affirming procedures discussed in this paper were appropriated from those more commonly used for hand rejuvenation. The authors concluded that there is very little evidence addressing the options for transgender individuals seeking gender affirming procedures of the hand. These researchers stated that although established procedures used for

hand rejuvenation may be employed in gender affirming care, further study is needed to determine relative salience of various hand features to gender dysphoria in transgender patients of various identities, as well as development of novel techniques to meet these needs. Level of Evidence = III.

Peritoneal Pull-Through Technique Vaginoplasty in Neovagina Construction in Gender-Affirming Surgery

Tay and Lo (2022) reviewed the application, effectiveness and outcomes of a novel surgical technique, peritoneal pull-through technique vaginoplasty, in gender-affirming surgery. Specific outcome parameters included healing time, depth of cavity achieved,) alleviation of dysphoria, and morbidity of the surgery. These researchers carried out a systematic review according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement and PROSPERO registration obtained before commencement. A search was performed in OVID Medline, Embase, Willey Online Library and PubMed. Specialty-related journals, grey literature and reference lists of relevant articles were manually searched. From 476 potentially relevant articles, 12 articles were analyzed; and the publications were all level 4 or level 5 evidence. Healing times were poorly reported or often not mentioned. A total of 8 authors reported neovagina cavity depth of at least 13 cm and good patient satisfaction. Alleviation of dysphoria was not discussed by any of the publications and only 6reported complications. Average follow-up ranged from 6 weeks to 14.8 months. The authors concluded that the use of peritoneal pull-through vaginoplasty in gender-affirming surgery is promising and novel; however, there is a paucity of data. These investigators stated that further research and longer-term data are needed to examine the safety and effectiveness of this technique including stabilization of vaginal depth, later morbidity and complications. Patients seeking this surgery overseas should be informed of the potential difficulties they may face.

Urethral Complications and Outcomes in Transgender Men

Hu et al (2022) noted that urologic problems, such as urethral fistulas and strictures, are among the most frequent complications following phalloplasty. Although many studies have reported successful phalloplasty and urethral reconstruction with reliable outcomes in transgender men; so far, no method has become standardized. These researchers examined the reports on urological complications and outcomes in transgender men with respect to various types of urethral reconstruction. They carried out a comprehensive literature search of PubMed, Scopus, and Google Scholar databases for studies related to phalloplasty in transsexuals. Data on various phallic urethral techniques, urethral complications, and outcomes were collected and analyzed using the random-effects model. A total of 21 studies (1,566 patients) were included: 8 studies (1,061 patients) on "tube-in-tube", 9 studies (273 patients) on "prelaminated flap, and 6 studies (221 patients) on "second flap". Compared with the tube-in-tube technique, the pre-laminated flap was associated with a significantly higher urethral stricture/stenosis rate; however, there was no difference between the pre-laminated flap and the 2nd flap techniques. For all phalloplasty patients, the pooled rate of urethral fistula or stenosis was 48.9 %, the rate of the ability to void while standing was 91.5 %, occurrence rate of tactile or erogenous sensation was 88 %, the prosthesis complication rate was 27.9 %, and patient-reported satisfactory outcome rate was 90.5 %. The authors concluded that urethral reconstruction with a pre-laminated flap was associated with a significantly higher urethral stricture rate and increased need of revision surgery compared with that observed using a skin flap. Overall, most patients were able to void while standing and were satisfied with the outcomes.

Appendix

DSM 5 Criteria for Gender Dysphoria in Adults and Adolescents

I. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by two or more of the following:

A. A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or, in young adolescents, the anticipated secondary sex characteristics)
B. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or, in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
C. A strong desire for the primary and/or secondary sex characteristics of the other gender
D. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender)
E. A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender)
F. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).

II. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Format for Referral Letters from Qualified Health Professional (From SOC-7)

1. Client's general identifying characteristics; *and*
2. Results of the client's psychosocial assessment, including any diagnoses; *and*
3. The duration of the mental health professional's relationship with the client, including the type of evaluation and therapy or counseling to date; *and*
4. An explanation that the WPATH criteria for surgery have been met, and a brief description of the clinical rationale for supporting the patient's request for surgery; *and*
5. A statement about the fact that informed consent has been obtained from the patient; *and*

6. A statement that the mental health professional is available for coordination of care and welcomes a phone call to establish this.

Note: There is no minimum duration of relationship required with mental health professional. It is the professional's judgment as to the appropriate length of time before a referral letter can appropriately be written. A common period of time is three months, but there is significant variation in both directions. When two letters are required, the second referral is intended to be an evaluative consultation, not a representation of an ongoing long-term therapeutic relationship, and can be written by a medical practitioner of sufficient experience with gender dysphoria.

Note: Evaluation of candidacy for gender affirmation surgery by a mental health professional is covered under the member's medical benefit, unless the services of a mental health professional are necessary to evaluate and treat a mental health problem, in which case the mental health professional's services are covered under the member's behavioral health benefit. Please check benefit plan descriptions.

Characteristics of a Qualified Mental Health Professional (From SOC-7)

1. Master's degree or equivalent in a clinical behavioral science field granted by an institution accredited by the appropriate national accrediting board. The professional should also have documented credentials from the relevant licensing board or equivalent; *and*
2. Competence in using the Diagnostic Statistical Manual of Mental Disorders and/or the International Classification of Disease for diagnostic purposes; *and*
3. Ability to recognize and diagnose co-existing mental health concerns and to distinguish these from gender dysphoria; *and*
4. Knowledgeable about gender nonconforming identities and expressions, and the assessment and treatment of gender dysphoria; *and*

5. Continuing education in the assessment and treatment of gender dysphoria. This may include attending relevant professional meetings, workshops, or seminars; obtaining supervision from a mental health professional with relevant experience; or participating in research related to gender nonconformity and gender dysphoria.

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