

## Surgeon-only Day

### Chest surgery

#### **Complications following Gender-Affirming Mastectomy: An Administrative Claims Analysis of Over 5800 Patients**

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#### **Abstract**

##### Purpose:

Gender-affirming mastectomy (GAM) is the most requested gender-affirming procedure. Previous studies examining complications following GAM have been limited by small sample sizes or single-institution data. We aimed to evaluate the frequency of complications and revisions following GAM in a national administrative claims dataset.

##### Methods:

We utilized the PearlDiver database, containing administrative claims records from over 165 million patients insured by multiple payors in the United States from 2010-2022. Using CPT codes, we identified a subset of patients who underwent GAM from a sample of gender-diverse individuals. Basic demographic information in addition to complication rates and revision procedure rates were collected for patients who underwent GAM.

##### Results:

Of the 5808 patients who underwent GAM, 789 (13.6%) experienced at least one postoperative complication. The most common complications included postoperative scarring (6.5%), postoperative pain (3.3%), and sensory disturbances (2.4%). Scar revision was the most common revision procedure (3.1%), followed by nipple-areolar reconstruction (0.7%), and chest contouring (0.3%). There were no recorded instances of VTE.

##### Conclusions:

In this study, GAM is found to have low rates of complications and revisions. Supported by recent studies demonstrating low regret and high satisfaction following GAM, we believe this study provides further evidence for the safety of this procedure in one of the largest cohorts of GAM patients to date. Future work should explore predictors of complications for patients undergoing GAM.

## **A Novel Technique for Top Surgery in Small-Breasted Individuals Who Experience Gender Dysphoria – Concentric Periareolar Mastectomy, Interlocking Suture and Waterjet-Assisted-Liposuction**

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### **Abstract**

#### **Background:**

In small-breasted individuals, who experience gender dysphoria, the concentric periareolar approach is typically the preferred method for mastectomy. However, this method carries a notable risk of hypertrophic scars and changes in the areolar dimensions. This study introduces the periareolar interlocking suture (PIS) as a new scar-minimizing procedure, with a low complication rate and high patient satisfaction.

#### **Patients and Methods:**

We performed a concentric periareolar mastectomy (CPM) combined with PIS and waterjet-assisted liposuction (WAL) in patients with small breasts (A to B-Cup) and good skin quality/elasticity. Outcome measures included complication rates, patient satisfaction (assessed via the BODY-Q Chest and Nipples Scale and scar appearance), nipple sensitivity, and the rate of surgical corrections.

## Results:

Between April 2017 and December 2023, we conducted 2312 mastectomies in 1156 people who experience gender dysphoria, with 410 breasts treated using CPM combined with PIS and WAL. The mean patient age was 23 years, mean hospital stay was 4 days, and mean operation time was 96.1 minutes. The overall complication rate was 7.8%, with acute hematomas occurring in 4.6% of the cases. Secondary revisions were necessary in only 2.2% of cases. Patient satisfaction, measured using the BODY-Q scale, was statistically significant and very high.

## Conclusion:

Individuals with gender dysphoria are well-informed and increasingly demand aesthetic outcomes. Whenever feasible, procedures with minimal scarring are preferred. The technique presented here resulted in very high patient satisfaction, preserved nipple sensitivity, and a low rate of complications and secondary aesthetic corrections in a carefully selected cohort of patients with small breasts.

## Feasibility of MRI for Chest Wall and Breast Cancer Assessment in Transmasculine Persons

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### Abstract

**Background:** Chest masculinization surgery is commonly pursued among transmasculine persons (assigned female sex at birth) for gender affirmation. The surgical goals and techniques for chest masculinization surgery differ from oncologic mastectomy in that the surgeon does not necessarily aim to remove all fibroglandular tissue and often leaves tissue behind to achieve aesthetically masculine pectoral appearance of the chest wall. While exogenous testosterone therapy and/or oophorectomy are known to reduce the functional activity of breast tissue, it remains somewhat active and may be at risk for breast cancer. Currently, there is insufficient evidence to recommend for or against imaging-based breast cancer screening in transmasculine persons who have undergone chest masculinization surgery. Mammography may not be technically feasible or

reliable, and ultrasound screening has low sensitivity for breast cancer. Contrast-enhanced MRI has high sensitivity and specificity for assessment of residual breast tissue after mastectomy and high sensitivity and specificity for breast cancer detection, but, to our knowledge, has not been studied in this population.

**Methods:** Adult transmasculine subjects who received >2 years of testosterone therapy and were >1 year after chest masculinization surgery underwent a specialized protocol chest wall MRI including with intravenous gadolinium contrast material. The chest wall was assessed for 1) presence or absence of visible residual fibroglandular tissue, 2) localization of the tissue using standard quadrants, clock-face, depth, and centimeters from the nipple measurements; and 3) semiquantitative assessment of the volume of residual tissue.

**Results:** Preliminary results of this ongoing investigation will be presented to determine feasibility of MRI for assessment of residual fibroglandular tissue in transmasculine persons receiving testosterone who had undergone chest masculinization surgery. Currently, 11 subjects have completed the MRI.

**Conclusions:** MRI is a feasible method for non-invasive assessment of residual fibroglandular tissue among transmasculine persons after chest masculinization surgery and may inform patients of potential breast cancer risk. Chest wall MRI may offer a suitable means for breast cancer screening of transmasculine persons after chest masculinization surgery.

## **Validation and Refinement of the "Number Y" for Implant Height Selection in Breast Augmentation for Transfeminine Individuals**

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## Abstract

**Background:** Breast augmentation is a common gender-affirming surgery for transfeminine individuals, requiring specialized implant selection due to anatomical differences.

**Aim:** To evaluate the use of the "Number Y" for predicting breast implant shape in transfeminine individuals and propose an adjusted "Number Trans-Y" for more accurate surgical planning.

**Methods:** This retrospective study analyzed 21 transfeminine patients undergoing GAS. The primary focus was on the concordance between preoperative and intraoperative implant shape decisions, which were categorized as vertical-elliptical, circular, or horizontal-elliptical. Statistical analyses examined patient and implant characteristics to explore how anatomical differences influence implant height selection.

**Outcomes:** The study explored the relationship between the Number Y and implant height selection, highlighting how thoracic perimeter and anatomical differences affect implant shape and size.

**Results:** The average age of participants was 39.62 years, with a mean BMI of 25.42. The mean Y-Number was 4.31, reflecting anatomical differences between transfeminine and cisgender individuals. Sixteen patients (76.19%) received implant heights predicted by their Number Y, while 5 (23.81%) did not. The discordant group had a significantly smaller thoracic perimeter (9 cm smaller,  $p=0.01$ ) and a lower Y-Number ( $3.96 \pm 0.11$  vs.  $4.42 \pm 0.28$ ;  $p<0.001$ ). Among those with concordant shapes, 87.5% were recommended low implant heights, while those with discordant shapes were recommended middle heights but ultimately received low heights.

**Clinical Implications:** The findings suggest that the Number Y is not fully reliable for breast implant shape selection in transfeminine individuals, with anatomical differences necessitating an adjusted approach for improved outcomes, hereby named as "Number Trans-Y".

**Strengths & Limitations:** Strengths of the study include its focus on a specific patient cohort and the detailed statistical analysis of anatomical variables.

Limitations include the retrospective design and small sample size, which may limit the generalizability of the findings.

**Conclusion:** The Number Y is a limited tool for predicting breast implant shape in transfeminine individuals, with a need for further refinement in predictive methods for this population.

## Feminizing Genital Surgery

### ROBOTIC-ASSISTED SIGMOID VAGINOPLASTY FOR FEMINIZING GENDER AFFIRMING SURGERY: FEASIBILITY AND OUTCOMES

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#### Abstract

**Introduction:** There are many options for feminizing genital surgery in transgender women. We present one of the first reported series for robotic-assisted sigmoid vaginoplasty (RSV) for both primary and revision gender-affirming vaginoplasty.

**Methods:** Patients were retrospectively evaluated between 2020-2024 who underwent either primary or revision RSV. The technique for the surgery is described. Demographics, complications, vaginal depth, and hospital events were analyzed after chart review.

**Results:** 36 patients underwent robotic-assisted sigmoid vaginoplasty. 11 underwent primary RSV and 25 underwent revision vaginoplasty for vaginal stenosis (25) and prostatico-vaginal fistula (4). Hospital course and post-discharge events are described. Mean vaginal depth (VD) was 17.6cm (3.7 SD). In patients who underwent revision vaginoplasty for stenosis, preoperative VD was on average 3.4cm (3.3 SD) and none developed fistulas. Most patients expressed satisfaction with their surgery and outcomes. None reported a change in bowel habits, vaginitis, or excessive discharge that persisted after 3 months post-op,

and none had evidence of diversion neo-vaginal colitis on post-operative vaginoscopy.

**Conclusion:** RSV is a feasible and safe technique as a primary option for vaginoplasty or as a revision to treat vaginal stenosis. Larger and longer comparative studies are needed to assess the utility and long-term functional outcomes of this technique.

## **Complications following Gender-Affirming Penile-Inversion Vaginoplasty: An Administrative Claims Analysis of Over 1400 Patients**

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### **Abstract**

#### Purpose:

Penile-inversion vaginoplasty (PIV) is the most requested genital gender-affirming surgery (GAS). Previous studies examining complications following PIV have been limited by small sample sizes or single-institution data. We aimed to evaluate the frequency of complications and revisions following PIV in a national administrative claims dataset.

#### Methods:

We utilized the PearlDiver database, containing administrative claims records from over 165 million patients in the United States from 2010-2022. Using CPT codes, we identified a subset of patients who underwent PIV from a sample of gender-diverse individuals. Basic demographic information in addition to complication rates and revision procedure rates were collected for patients who underwent PIV.

#### Results:

Of the 1449 PIV patients, 510 (35.2%) experienced at least one complication. Minor complications were common, with vaginal stenosis (10.4%), UTI (9.2%), and pain complications (9%) being most frequent. Major complications were less

common, with hemorrhage (1.8%), urethrovaginal fistula (1.2%), and VTE (1%) being most frequent. 0.8% of patients experienced rectovaginal fistula. 11.7% of patients underwent revision within 1-year of PIV.

### Conclusions:

This study demonstrates PIV has a moderate risk of minor complications and lower risk of major complications. Surgeons can use this data when counseling patients preoperatively. However, given that not all complications are captured in claims datasets, the incidence of complications, especially minor complications, is likely underestimated. Thus, future work should prospectively assess complications following PIV across multiple centers.

## **Detailed Algorithm for Selecting the Optimal Surgical Technique for Vaginoplasty based on anatomic measures and patient´s choice**

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### **Abstract**

#### **Background**

Developing a systematic algorithm to guide vaginoplasty technique is crucial for optimizing outcomes, minimizing complications, and standardizing surgical practice.

The algorithm categorizes patients by anatomical considerations, including penile length and girth, perineal length, distance from perineal shaft to pubis, and adipose tissue length from labia majora to the imaginary line of the urethral meatus. Vaginoplasty techniques, such as penile inversion, sigmoid colon vaginoplasty, and peritoneal vaginoplasty, are presented based on these assessments. The advantages and disadvantages of each technique should be elucidated to facilitate informed decision-making..

#### **Aim**

To describe an algorithm for surgeons to determine the most appropriate vaginoplasty technique based on anatomical and clinical considerations.

## **Results**

### *1. Initial Patient Assessment*

- Conduct a comprehensive evaluation, including medical history, psychological assessment, physical examination, and sexual preferences.
- Obtain informed consent and discuss available treatment options.

### *2. Anatomical Measurements*

- Penile Skin Length (PSL): Measure from the base of the penis to the initiation of the prepuce.
- Perineal Length (PL): Measure from the anal opening to perineal shaft to the symphysis pubis.
- Account for potential distance increase due to adipose tissue in patients with higher body mass.
- Consider a standard 2 cm length from perineal shaft to anus.

### *3. Decision Points*

- Step 1: Evaluate PSL and PL
- If  $PSL > 1.5 PL$ , proceed to Inverted Penile Skin Vaginoplasty.
- If  $PSL < 2 PL$ , proceed to Colovaginoplasty.
- If  $PSL 1.5-1.9 PL$ , proceed to peritoneal vaginoplasty.
- Step 2: Assess Perineal Length
- If perineal length  $\geq 4$  cm, consider Colovaginoplasty.
- If perineal length is insufficient, proceed to Step 3.

procedures with the patient.

### *4. Additional Considerations*

- Patient Preferences: Evaluate preferences regarding aesthetics, functionality, and recovery period.
- Comorbidities: Assess underlying health conditions that may influence surgical options (e.g., bowel health for colovaginoplasty).

- Height and Body Proportions: Examine overall height and body proportions.
- Surgeon's Expertise: Consider the surgeon's experience and proficiency with each technique.

#### 5. Final Decision

- After comprehensive assessments and deliberations, select the most appropriate surgical technique.
- Ensure the patient comprehends the methodology, potential risks, and anticipated outcomes.

### Conclusion

This algorithm provides a systematic approach for surgeons to determine the optimal vaginoplasty technique based on patient anatomy and preferences. Ongoing refinement through clinical feedback and outcomes data will enhance its efficacy, making it a valuable tool in the advancing field of gender-affirming surgery.

## Posterior vaginal augmentation for the management of recurrent vaginal strictures after neovagina

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### Abstract

**Objective:** This longitudinal follow-up study aimed to evaluate the outcomes of novel flap and graft reconstruction techniques for recurrent vaginal strictures in neovagina cases following previous failed surgeries and vaginal dilator treatments.

**Material and Method:** The study included 13 cases of neovagina, 7 performed for congenital vaginal agenesis and 6 for male-to-female gender-affirming surgeries, between 2013 and 2022. All patients presented with recurrent vaginal strictures and dyspareunia after neovagina surgery. Despite undergoing prior

stricture revisions and vaginal dilator therapy, these patients were unable to achieve vaginal intercourse due to recurrent fibrosis and associated symptoms.

**Results:** The mean age of the patients was  $27.1 \pm 6.7$  years (range: 18–41). Reconstruction methods included perineal flap repair in 6 cases, full-thickness skin grafting in 2 cases, and a novel labia minora graft in 1 case. An innovative approach involving anterior and lateral wall fibrotic vaginal excision combined with perineal flap repair was employed in 3 cases. The mean follow-up duration was  $23 \pm 9.9$  months (range: 12–42). Severe dyspareunia was reported in all cases before the final surgery, with a mean Visual Analog Scale (VAS) score of  $8.2 \pm 1.2$  (range: 6–10). Platelet-rich plasma (PRP) therapy was applied as an adjunct in 8 cases, with 4 receiving PRP alone and 4 combined with stromal vascular fraction therapy.

**Conclusion:** Novel flap and graft reconstruction techniques demonstrated promising outcomes in managing recurrent vaginal strictures in neovagina cases. Adjunctive therapies such as PRP and stromal vascular fraction may further enhance surgical outcomes and improve quality of life for affected individuals.

## **A cross-sectional study on urinary, bowel, and sexual dysfunction symptoms in transgender women before penile inversion vaginoplasty**

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### **Abstract**

**Introduction & Objectives:** Pelvic floor function in transgender women before penile inversion vaginoplasty remains largely unexplored. This study investigated urinary, bowel, and sexual dysfunction symptoms, along with pelvic floor muscle function.

**Materials & Methods:** This cross-sectional observational study included transgender women ( $\geq 18$  years) eligible for primary vaginoplasty via penile

inversion between April 2023 and February 2025, who underwent a preoperative pelvic physiotherapy consultation and provided informed consent. Data were collected from physiotherapy records and clinical assessments. Study outcomes included participant demographics and standardized dysfunction assessments (self-report and physical exam). Descriptive statistics summarized demographic data, prevalence of pelvic floor dysfunction symptoms (PFD symptoms), and muscle dysfunction. Associations between PFD symptoms and covariates, including autism spectrum disorder (ASD), and history of negative sexual events (NSEs), were analyzed using chi-square tests, with effect sizes reported as Cramér's V. Statistical significance was defined as  $p < 0.05$ .

**Results:** Data from 81 transgender women (median age: 25.0 years, IQR 21.0–33.0) were analyzed. Overall, 56% of participants reported at least two PFD symptoms. Pelvic floor muscle dysfunction was observed in 60.5% of participants. ASD was reported by 35.8% and was associated with a lower prevalence of urinary hesitation ( $p = 0.0215$ ; Cramér's V = 0.252) and reduced sexual activity ( $p = 0.0194$ ; Cramér's V = 0.252). A history of NSEs was present in 43.2% of participants, with no significant associations with symptom prevalence ( $p > 0.05$ ).

**Conclusions:** PFD symptoms and muscle dysfunction are highly prevalent among transgender women before vaginoplasty. While ASD is associated with a few specific symptom differences, no significant associations were observed between history of NSEs and symptom prevalence. These findings underscore the importance of comprehensive preoperative pelvic floor assessments. Prospective studies with larger samples are needed to explore mechanisms of causality and potentially refine pre- and postoperative management strategies.

## **URINARY STORAGE SYMPTOMS AFTER GENDER-AFFIRMING VAGINOPLASTY: RISK FACTORS AND PREVENTION**

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## Abstract

**Introduction:** Urinary symptoms after gender-affirming vaginoplasty have not been well described. The aim of this study is to assess overactive bladder (OAB) symptoms and identify risk factors for worsened symptoms after vaginoplasty in transgender women.

**Methods:** This was a retrospective longitudinal study examining the changes in OAB symptoms of transgender women undergoing vaginoplasty. All participants completed the 19 question Overactive Bladder Questionnaire Short-Form (OAB-q SF) to assess urinary symptoms before and after vaginoplasty. Medians of OAB-q SF scores, including Symptom Bother and Health-Related Quality of Life (HRQL) sub-scores, were measured. Changes in OAB-q SF scores were compared. Data were stratified by factors such as age at time of surgery and type of vaginoplasty performed.

**Results:** 53 transgender women undergoing vaginoplasty, with median age 31 (IQR 14), were evaluated. Median time from surgery to post-operative questionnaire was 29 weeks (Interquartile Range 9 – 58 weeks). 53% underwent robotic-assisted peritoneal flap vaginoplasty (PFV), 21% penile inversion vaginoplasty (PIV), 15% minimal depth vaginoplasty (MDV), and 11% robotic-assisted sigmoid vaginoplasty (SV). For all patients, change in Symptom Bother scores was not statistically significant (6.7/100 vs 13.3/100,  $p=0.107$ ). Statistically significant HRQL declines were noted post-operatively (96.9/100 vs 93.8/100,  $p=0.020$ ). When stratified by age, the oldest quartile of patients (44 to 71 years old) experienced the largest worsening of Symptom Bother (6.7/100 vs 20/100,  $p=0.020$ ) and HRQL (96.9/100 vs 90.8/100,  $p=0.008$ ). When stratified by vaginoplasty type (PFV vs other), PFV had a significant decrease in HRQL (96.9/100 vs 93.8/100,  $p=0.023$ ), whereas the cohort of other vaginoplasties did not. Finally, when stratified by time from surgery to OAB-q SF in quartiles, no quartile had a statistically significant change in Symptom Bother or HRQL.

**Conclusions:** Patients undergoing vaginoplasty can experience worsening of overactive bladder symptoms affecting their quality of life. These changes may be more pronounced in older individuals and those undergoing PFV.

# Masculinizing Genital Surgery

## Assessment of the Core Outcome Set for Masculinizing Genital Gender-Affirming Surgery: how and when

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### Abstract

#### Background

Masculinizing genital gender-affirming surgery (gGAS) involves a range of surgical procedures. Individuals seeking masculinizing gGAS should be informed about the outcomes of these procedures. However, clinical outcomes and adverse events reported in the literature to date are very heterogeneous.<sup>1</sup> Functional or patient-reported outcomes have been measured using non-validated or non-population-specific instruments. Additionally, the lack of involvement of TGD people in outcome prioritization and research (design) compromises the validity of outcomes research. The GenderCOS project was conducted together with TGD people and professional experts to develop a set of core outcomes to be measured and reported in all future research on masculinizing gGAS<sup>2</sup>. This study aims to identify and qualitatively evaluate outcome measurement instruments (OMIs).

## Methods

This study employed an adapted COSMIN methodology<sup>3</sup> to identify suitable OMI for the masculinizing gGAS COS. A first search focused on systematic reviews and recent outcome-related literature to find population-specific OMI. The second phase involved searching the COSMIN database and clinical guidelines for non-population-specific instruments. Identified OMI were evaluated for applicability, validation, relevance, and assessment burden. They were finalized with input from clinical experts.

## Results

The COS for masculinizing gGAS includes 10 core outcomes, consisting of a variety of patient-reported and clinical outcomes and adverse events. This second step of the GenderCOS project will provide the most appropriate measurement tools and timing to assess the core outcomes.

## Conclusions

The GenderCOS project developed a COS for masculinizing gGAS research, including recommendations on how and when to measure the core outcomes. Adoption will increase the validity and facilitate standardization of research, which is an essential step toward data harmonization. Comparison of high-quality evidence will enable informed surgical decision-making, ultimately improving masculinizing gGAS care.

## References

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# Long-term outcomes of urethral reconstruction for phalloplasty in individuals assigned female at birth.

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## Abstract

### INTRODUCTION AND OBJECTIVES

Urethral complications following transmasculine gender-affirming surgery are common, affecting up to 60% of patients. This study evaluates the long-term outcomes of urethral reconstruction in a large cohort of individuals assigned female at birth (AFAB) who underwent phalloplasty.

### MATERIALS AND METHODS

Patients who underwent phalloplasty between 2013 and 2017 were included. The incidence of urethral fistulae and strictures within the phallus urethra was recorded. Events were documented at diagnosis, and survival analyses were performed to characterise outcomes following urethroplasty.

### RESULTS

Of the 289 patients, 37.7% experienced a urethral complication, comprising 56% fistulae and 44% strictures, with a cumulative failure probability of 60.4% at 10 years. Urethroplasty with radial artery urethroplasty (RAU) was performed in 13.1% of patients. The median follow-up for successful urethral reconstructions was 8.34 years (IQR 7.43–9.19 years), while the median time to urethral complications was 6.9 years (IQR 0.67–8.57 years). Kaplan-Meier analysis revealed a distinct “S”-shaped failure curve, with peaks in the first two years and after 6.5 years of follow-up. Early complications (within two years) accounted for 42.2% of cases, while 51.4% occurred after 6.5 years, with no significant difference between fistulae and strictures. RAU significantly reduced the risk of urethral complications (Cox HR 0.4,  $p=0.032$ , CI=0.18–0.92). However, 20.2% of urethral complication repairs failed, with a median time to failure of 1.28 years and a median follow-up of 7.9 years. Fistula repairs had a slightly higher success rate than stricture repairs (85.2% vs 72.9%, Cox  $p=0.111$ ).

### CONCLUSIONS

This study represents the largest cohort of AFAB individuals undergoing phalloplasty with urethral reconstruction. Despite advances in reconstructive

techniques, urethral complications occurred in 37.7% of patients. RAU significantly reduced complication rates. Most complications were observed within the first two years and after 6.5 years, with an overall repair success rate of approximately 80%.

## **Sexual functioning after penile prosthesis placement in post phalloplasty transgender and gender-diverse patients: A retrospective cohort study**

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### **Abstract**

**Introduction and Objectives:** Following phalloplasty, transgender and gender diverse (TGD) individuals may opt for penile prosthesis (PP) placement to achieve phallic rigidity. This generally entails one of the the last steps in genital gender-affirming surgery (GGAS). Different devices, originally designed for cisgender men, have been used and can be either semirigid or inflatable. Since 2016, models specifically designed for phalloplasty anatomy, such as the semirigid ZSI™ 100 and the inflatable ZSI™ 475, have been introduced. This study aims to evaluate patient-reported outcomes (PROMs) to assess satisfaction according to different types of PPs, including a specific focus on partner satisfaction.

**Materials and Methods:** A single-center cross-sectional cohort study reviewed all PP placements in post-phalloplasty TGD patients between January 2009 and December 2023. Patients who had a functional prosthesis in place were asked to complete a survey, encompassing a variety of validated and non-validated questionnaires such as the Maudsley Marital Questionnaire (MMQ) and the Erectile Dysfunction Inventory for Treatment Satisfaction questionnaire (EDITS). After inclusion, retrospective data was collected from electronic medical records. The primary outcome was to evaluate patient and partner satisfaction with the different types of PPs.

**Results:** A total of 87 patients and 36 of their partners participated in the study, with overall patient satisfaction reported as high. The median follow-up was 94

months (IQR 41-124). There were no significant differences in pre-operative patient features. Treatment satisfaction was significantly higher among patients using phalloplasty specific prostheses, with the semirigid ZSI™ 100 achieving the highest scores, compared to cisgender prostheses ( $p < 0.01$ ). Among cisgender prostheses, the highest treatment satisfaction was observed in patients with the inflatable AMS CX 700®. The lowest satisfaction scores were observed with the AMS Ambicor® and coincided with the highest complication rates. High treatment satisfaction was significantly associated with increased sexual satisfaction and quality of life (both  $p < 0.05$ ), as well as improved relational satisfaction. Partners reported higher satisfaction levels than the patients, with a significant positive correlation between patient and partner satisfaction across various domains ( $p < 0.001$ ).

**Conclusions:** High overall satisfaction rates are reported with PPs in the post-phalloplasty TGD population and their partners. However, important differences exist among the various types of prostheses, with those specific to phalloplasty performing best. This study demonstrates the importance of PROMs in the evaluation of various PPs.

## Shaping the Future of Gender Surgical Care

### Reversal surgical treatment in regretful individuals with gender dysphoria following gender affirmation surgery

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#### Abstract

Introduction & Objectives:

Gender affirmation surgery (GAS) has proven to be an effective intervention for the patients with gender dysphoria that improves their quality of life. After GAS, there is an infrequent chance of postoperative regret and a desire for reversal

treatment. In these situations, appropriate, controlled hormonal therapy must be administered together with a new cycle of evaluation by mental health experts (MHP).

#### Material & Methods:

Fifteen patients, aged 21 to 65 years, who had previously undergone gender affirmation surgery (two patients had masculinizing GAS and 13 patients had feminizing GAS) had reversal GAS at our center between November 2010 and January 2024. A mental health expert evaluated them before to surgery, and they received replacement hormone therapy for a year. Furthermore, the MHP from our Center assessed them. All except one of the thirteen transmale patients who expressed remorse had latissimus dorsi phalloplasty, and one patient had abdominal flap phalloplasty. Reversal surgery was performed in three to four stages: removal of female genitalia, phalloplasty using either latissimus dorsi microvascular flap or abdominal flap phalloplasty, urethral reconstruction and implantation of penile and testicular implants. One of the two transfemale patients underwent vaginoplasty with sigmoid colon and all additional surgical procedures, whereas the other patient performed only removal of previously created neophallus and implants.

#### Results:

The follow-up period varied between 6 and 158 months. Favorable postoperative outcomes were achieved in all patients. In nine patients all surgical steps have been completed; three patients are currently awaiting penile implants, while one patient decided opted not to proceed with penile prosthesis. Most complications in the transmale group were associated to urethral lengthening: 8 fistulas and 4 strictures were noted, in addition to 2 patients experiencing displacement of testicular implants, while one patient sought removal of testicular implants due to sports activities he was engaging. All complications were addressed through minor revision. Assessment of the regretting patients who underwent reversal latissimus dorsi phalloplasty involved self-reports regarding the surgical outcome as well as International Index of Erectile Function to collect information regarding sexual function, satisfaction and psychological well-being post-reversal surgery, since there are no specific questionnaires for evaluating this patient population. One

transfemale patient who underwent feminizing vaginoplasty expressed satisfaction with both the esthetic appearance and functionality of her neovagina.

Conclusions:

The vast majority of individuals with gender dysphoria are content with their decision following gender affirmation surgery, with only a small number expressing regret. Literature indicates an overall occurrence of surgical regret of less than 1% for transmen and under 2% for transwomen. Reversal surgeries present complex and multistage procedures, but lead to satisfactory outcome. They are indicated only after a new cycle of thorough preoperative treatment by MHPs and endocrinologist. Further insight into the characteristics of persons who postoperatively regretted their decision would facilitate future selection of applicants eligible for GAS.

## **Integrating Advanced Nurse Practitioners (ANP) into Gender-Affirming Surgery: Opportunities and Strengths in Patient-Centered Care**

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### **Abstract**

#### Background

Gender-affirming surgeries (GAS) have significantly increased in recent years, placing pressure on specialized clinics, which must provide comprehensive and high-standard perioperative care. Traditional models often result in prolonged wait times, fragmented care, and potential gaps in postoperative management, which lead to preventable complications. Integrating advanced nurse practitioners (ANPs) within surgical teams presents a valuable opportunity to enhance efficiency, improve patient outcome, and optimize workflows in gender-affirming surgery clinics.

#### Objective

To describe our new program integrating ANPs into the perioperative care model at of a high-volume GAS clinic in Spain

## Materials and Methods

This is a descriptive study which details the implementation of a perioperative program incorporating two ANPs into a high-volume GAS clinic: one dedicated to pre-/intraoperative support, and the other one focused on postoperative care. The study assesses key performance indicators (KPI) parameters, including perioperative surgical times, early detection of postoperative complications, complication rates, postoperative pain management, and patient-reported satisfaction. Data were collected through retrospective medical records and qualitative feedback from both patients and healthcare professionals.

## Results

From January 2024 to January 2025, 275 GAS procedures were performed (including: 73 PIV, 110 colovaginoplasty, 20 phalloplasty, 48 mastectomy and 24 breast augmentation). The ANP-led program was associated with improved key performance indicators, including optimization of risk factors (cardiovascular risk management, weight control, and smoking cessation programs), a preoperative safety checklist, postoperative management education and telehealth for the early detection of complications. Patients reported greater satisfaction due to increased accessibility to healthcare professionals, clearer guidance on recovery processes, and more personalized follow-up. Additionally, the presence of ANPs alleviated some of the workload on surgeons and medical staff, allowing for a more efficient distribution of responsibilities and competencies.

## Conclusions

Integrating advanced nurse practitioners (ANPs) within multidisciplinary surgical teams streamlines workflow, optimizes surgical outcomes, and enhances patient satisfaction in high-volume GAS clinics.

# Variant GGAS in assigned female at birth transgender and gender diverse individuals: A retrospective matched cohort study

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## Abstract

**Introduction and objectives:** The overall performance of classical genital gender-affirming surgery (GGAS) with a binary endpoint for transgender and gender diverse (TDG) individuals is increasing. Along with societal changes, the performance of variant GGAS, where the endpoint lies somewhere along the spectrum between masculinizing and feminizing GGAS is gaining interest in both patients and providers. The aim of this study is to evaluate postoperative complications in all cases of variant GGAS performed at the Ghent Universal Hospital.

**Method:** A single center retrospective cohort study with matched controls reviewed all GGAS performed in assigned female at birth (AFAB) patients between January 2006 and July 2023. Patients who underwent primary GGAS either with incomplete defeminization or incomplete masculinization were considered variant. All included patients were matched 1:1 with a control patient who underwent classical GGAS. Matching was based on date of procedure, age, smoking status, BMI and, if applicable, type of flap used for phalloplasty. The primary outcome was to compare postoperative complications and rate of revision surgery between groups. Secondary outcomes were to evaluate patient satisfaction and the underlying motives for the variant GGAS request.

**Results:** 23 variant metoidioplasty cases and 22 variant phalloplasty cases were included and matched with classical GGAS cases. Of metoidioplasty cases, 5 had vaginal preservation (VP), 14 had no urethral lengthening (UL), and 4 had VP without UL. Of phalloplasty cases, 4 had VP, and 18 did not have UL. There were no significant differences in preoperative status between cases and matched controls. Operating time was similar across metoidioplasty cases, while it was significantly shorter in variant phalloplasty cases ( $p < 0.01$ ). For metoidioplasty, there were no significant differences in overall complications nor on non-urethral related complications across all cases. Urethral related complications

were not significantly different between UL and no UL groups. For phalloplasty, significantly less urethral related complications occurred in the no UL group ( $p < 0.001$ ), while there were no significant differences in non-urethral related complications or overall complications across all cases. No significant differences were observed in patient satisfaction across both metoidioplasty and phalloplasty cases. The most frequently reported underlying motives for variant GGAS were no wish for standing micturition in no UL groups, sexual preference in VP groups, and fear of complications in all variant groups.

**Conclusions:** Performing variant GGAS without UL significantly reduces risk of urethral related complications in the case of phalloplasty. Variant GGAS approaches are preferred by some TGD individuals due to a diversity of reasons and should therefore be discussed in pre-operative counselling and offered as valid alternatives.

## **Utilization of Gender-Affirming Surgical Services in the United States: A Multi-Payor Administrative Claims Analysis**

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### **Abstract**

Purpose: Gender-diverse individuals represent a growing population globally. Previous work has demonstrated patients are accessing gender-affirming surgical services at increasing rates. However, prior work is limited by small sample sizes or single-institution data. Thus, we aimed to explore demographic information and gender-affirming surgical service utilization in a large administrative claims dataset that includes records from multiple payors.

Methods: The PearlDiver database, containing administrative claims records from over 165 million patients in the United States from 2010 to 2022, was utilized. A sample set was created using ICD and CPT codes specific for gender-diverse individuals. Basic demographic information was collected, as was utilization data using ICD and CPT codes specific for common gender-affirming surgical services.

Results: Of the 183,808 gender-diverse patients identified in the dataset, 16,106 surgical procedures were performed from 13,808 individual patients. Gender-diverse patients have a mean age of 25 years old, are geographically diverse, 88% have obtained at least a high school degree, 94% are employed to some degree, and 90% are insured. Utilization of gender-affirming surgical services increased over time, with mastectomy, hysterectomy, and facial feminization being the highest services by volume.

Conclusion: Gender-affirming surgeries are increasing utilized healthcare services in the United States. Although identifying gender-diverse individuals and surgical data within administrative claims databases is challenging, the data contained in these datasets can provide valuable information regarding the demographics and utilization trends of patients undergoing gender-affirming surgical services. Future studies can use administrative claims data to better understand gender-affirming surgery barriers, access, and outcomes.