Building an Academic Medical Center
Multidisciplinary Genital Gender Affirming Surgery Program:
The UCSF Experience-- Initial Outcomes and Lessons Learned

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Background:

- 0.6% of the U.S. population identifies as transgender (=1.4 million Americans)
- Transgender people marginalized and underserved by healthcare system
- In 2013: ZERO academic medical centers in the Western U.S. providing genital gender affirming surgery (GAS)
- In 2013 we started a multi-disciplinary genital GAS program at UCSF:
  - Male to Female
  - Female to Male
Purpose:

• Describe program design

• Highlight our approach & challenges faced

• Clinical volume and lessons learned
I. Program Design:

• Proposed multi-disciplinary program (Urology, Psychiatry, Plastic surgery, Colorectal surgery, Gynecology, Endocrinology, Primary Care, Dermatology)
  – Met with specialty program leaders; obtained a letter of commitment from each → provided to Executive Committee

• Proposed program to Medical Center leadership
  – Strong support from my Department Chair
  – Approved

• Credentialing Committee
  • My training credentials reviewed / approved
• FINAL PLAN:
  Start with a “pilot program” (30 MtoF cases)
  • Allowed for outcomes review over first 30 cases
  • A psychiatrist partner reviewed all referral letters
  • Referrals to colleague specialists as needed
  • Plan to continue with program if no indication to halt
II. Program Development:

Non-Clinical:

• Medical Center Contracts Office:
  – “What is the back-end cost for each case?”
    • Based on estimated:
      – OR time
      – LOS
      – Use of prosthetics & other $$ disposables
      – Estimated complication rates and associated costs
    – Developed contracts for each insurance plan

Firm negotiation with insurers to ensure costs reimbursed
• **Compliance Office:**
  - Ensure in compliance with MediCare and MediCal

• **Risk Management:**
  - Review of extended surgery CONSENT FORM that detailed program design and surgery risks
Program Development:

Clinical:

• In-service teaching to our Clinics:
  – “Cultural sensitivity”, wound care, anticipated hospital stay pathways, potential complications

• Designated hospital ward “home” for our trans patients

• In-service teaching to Pre-Op, OR, & PACU staff:
  – Cultural sensitivity (incl. use of correct pronouns!)
  – Overview of surgeries (what OR staff can expect)
  – Surgical instrument needs (order or make needed instruments)
Patient relayed complaints re. peri-op and ancillary staff used incorrect pronouns”

Reality: very upsetting to patients. Also, undermines care relationship with the patient

Corrective Actions:

• Designated correct gender as part of pre-op “Time Out”

• Required changes to EMR (Apex): Highlighted designated gender in each patient’s chart

• Mandated designated gender as part of physician / nurse / and staff sign-out
Care pathways & Outcomes
Vaginoplasty

Care Pathway

- OR Time: 4-6 hrs (initial: 7-8 hrs)
- EBL: 100-250 cc
- Level of care: ward
- DC home POD#3 (no cavity)
- DC home POD#5-6 (with cavity)
- Vaginoplasty WITH cavity: 36
- Vaginoplasty WITHOUT cavity: 16
- Intestinal Vaginoplasty: 7
  - 6/7 = after failed vaginoplasty done elsewhere
  - 1/7 = de novo vaginoplasty
- Vaginoplasty revision (referrals): 39
  - Reconstruction / labiaplasty, urethroplasty; chronic pain

Time needed to establish case contracts resulted in significant lag for scheduling surgeries
Major Complications

Intra-op rectal injury: (0/59)

Delayed recto-vaginal fistula: (0/59)

- Same patient (with cavity); + Epispadias repair hx.

Inability to achieve orgasm post-op (1/59)

Loss of clitoris: (1/59)*

Return to OR (bleeding, urethral) (1/59)*

Leak at bowel anastomosis (intestinal vaginoplasty) (1/7)

As a tertiary care center → complex cases
Minor Complications

• Small tear at posterior commissure (19%)
• UTI (Once: 5/59; >once: 0/59)

Importance of reviewing proper dilation / douching technique and schedule with patients
## Female to Male Genital GAS

### Stage I
- **Phalloplasty**
  - Metoidioplasty (+ urethra = 2 stages; - urethra = 1 stage)
  - Radial Forearm (sensate, +urethra)
  - Anterior Thigh (sensate; +urethra)

### Stage II
- +/- Combine with Laparoscopic hysterectomy
- Urethral join-up
- Vaginectomy
- Glansplasty
- Testicular prosthesis placement (Rt.)
- Transposition of Clitoris to base of phallus (safe!)

### Stage III
- Penile prosthesis placement (Inflatable > Malleable)

4 - 6 mo.

(Garcia et al, 2014)
• At UCSF: Since 2013 ➔ 112 Cases
• Every permutation of all stages except primary full-size neophallus primary construction

Cornerstones of FtoM surgeries:
  – Patient active in all decision-making
  – Surgical planning / staging
  – Close follow-up

Complications (higher rate) ~ all urinary tract and sexual function
Lessons Learned:

• Credentialing requirements likely to increase to standard for other fields (training at accredited U.S. institutions, case logs, MR#’s)

• Program development can be slow (patience; warn first patients of possible delays)

• A dedicated nurse to essential for inpatient wound care teaching (e.g. dilation & douching)
• Residents enthusiastic & very capable of doing these surgeries

• Training (including cadaver-based courses done & in future) essential for capacity-building and research to advance field

Thank you!
Vaginoplasty

Care Pathway

- OR Time: 4-6 hrs (initial: 7-8 hrs)
- EBL: 100-250 cc
- Level of care: ward

- Bed-rest ➔ eve. of POD #4 (+SQ Heparin / SCD’s)
- Vaginal packing removed ➔ morning of POD #5
- Dilation and Douching starting POD #5
- Foley DC POD #5 or #6
- DC Home POD #5 or #6

- More than 50% discharged on Ibuprofen only
Intra & Extramural Educational Efforts:

- Lectures to medical students
- Provided MediCare with “White Paper” about GAS to help them prepare to cover surgeries
- Cadaver-based genital GAS courses to residents and surgery faculty
- Integrated trans surgery lectures to medical school curriculum
- Surgical device development specific for GAS
Very important to maintain dialogue with other providers in program, to relay patient’s needs and coordinate care across clinics

- **Examples:**
  1. Person to person review of patients with special psycho-social needs with program’s Psychiatrist

  2. Collaboration with my Colorectal surgery partner to refine our approach to intestinal vaginoplasty and salvage cases

  3. For trans men, coordination of Gynecologic surgeries to coincide with genital surgeries
Design of program

Multidisciplinary

* Collaborations among specialists
* Collaboration among University offices (Contracts, Compliance, etc.)
* Started as “pilot”
* Credentialing committee
* Long lead time → estab. Contracts

* Care pathways: MtoF:
  FtoM:

* Importance of offering comprehensive care (including salvage surgeries)
* Sites (UCSF, VA, County)
**Care pathways:**

- MtoF:
- FtoM:

* Importance of offering comprehensive care (including salvage surgeries)

**Case numbers**

- Expanding services within our institution
  - Plastics
  - Colorectal surgery

**Managing referrals with outside providers**

- Cultivated relationships with area primary care for longitudinal care
- Referrals from other surgeons
What we have not yet started to offer, and why (Phalloplasty)

- Staged roll-out (staff/services/contracts)
- Cost
- Calculating back-end cost
- Plan for pilot
- +/- Capacity within dept.
Pitfalls

• MediCare
• How we solved this
• Observation: MediCare’s attention to detail re eligibility
Complications

• 1 take back for bleeding
• 1 not definitive orgasm
• NO fistulas
• NO prolapse

• Patient selection:
  – Post anal cancer Tx with Radiation: only offered zero depth
  – Two patients declined to offer surgery due to psychosocial readiness
  – No lawsuits or other significant drama
Pt Satisfaction

• Excelent overall
• Not perfect
  – 1 patient chose not to f/u with me, in favor of her primary care MD
  – Some complaints about ancillary staff not using correct pronouns

• “Root cause analysis” performed
• Changes to Apex:
  • Proposed adding chosen patient names to chart
  • Proposed adding GENDER BASED SALUTATION in chart banner

• Proposed adding coded gender designation to
Intra-Institution Efforts:

- Med-School’s curriculum: changes made
- Med School electives: gave lectures
- School of Med coursework for faculty: Am Assoc Clin. Anatomists: National
- UC wide teaching (coursework)
- Research (!) collaborations in and across institutions
- Device development (App, Dilation device)
• Design of our program at outset
• Challenges

• Pitfalls
• Lessons learned, with adjustments to design

• ICD-10 and DSM-V have moved away from “pathologizing” diagnoses for being ‘transgender’
  e.g. “gender identity disorder” → now Gender Dysphoria