

Genitourinary pathology of Transsexual patients

INTRODUCTION TO TRANSEXUAL GENITAL
PATHOLOGY

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WARNING

This presentation has images of genitalia and description/videos of gender reassignment surgery.

Aim

- Primarily: to educate on the process involved in sexual transitioning, surgical procedure, and related Pathology
- Secondly: diseases/illness that still need to be considered relating to the individuals birth sex.
- Finally: Need for accurate clinical details and need to ask some delicate questions by clinicians

INTRODUCTION

- Why did I begin investigating LGBTQ+ pathology?
- SMI and related pathology SOPs concentrate on NONE trans pathology
- The varying sexual orientations and gender identities are now recognised in modern society, but modern Pathology and published guidance on disease states as a result of gender reassignment is poorly provided/considered.

Transgender Vs Transsexual Vs Cissexual

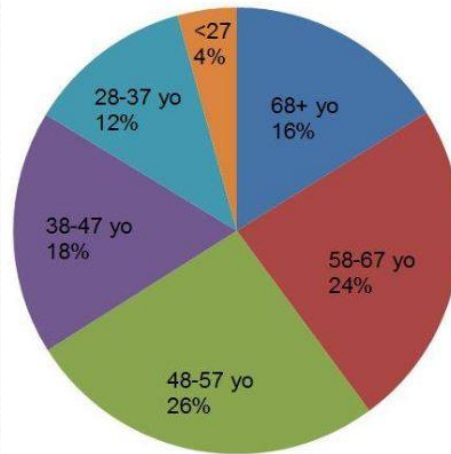
- Transgender – a person who does not relate to their biological sex but recognise with a different gender identity,
- Transsexual - a transgender person, especially one whose bodily characteristics have been altered through surgery or hormone treatment to bring them into alignment with their gender identity
- *Cissexual* – a person who recognises and relates to their biological sex.

Transgender and transexual: Stats UK

- 2021 national survey was the first time sex and gender orientation were questioned.
- 0.5% (262,000) of 95% of UK population that responded to this survey question identified as transgender. 5% of population did not answer this question.
- The number of Gender Recognition Certificates (GRCs) that have been granted since 2004 is 4,910 (June 2018). Three quarters are owned by male-born transgender people and mostly aged 50+.
- Based on prevalence estimate of 200,000-500,000 transgender individuals in UK, this means only 3% of trans people have changed the sex on their birth certificate. The overwhelming majority of trans people remain legally the sex they were born.

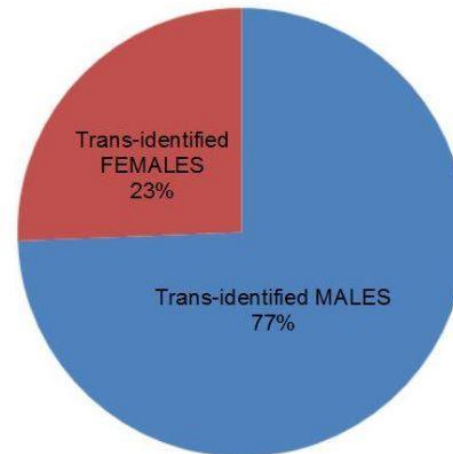
Transgender and transexual: Stats UK

Current age of all transgender
People with a GRC in the UK



Total of 4556 GRC granted since 2004

Sex of all transgender people
with a GRC in the UK



Most transgender people with GRC are MALE

Data from MoJ official statistics: <https://www.gov.uk/government/statistics/tribunals-and-gender-recognition-certificates-statistics-quarterly-january-to-march-2017-and-2016-to-2017>

Transgender and transexual: Stats UK

Clinical gender reassignment

- In 2011, GIRES estimated that only 20% of the UK transgender population were likely to seek medical treatment for their condition at some stage. Based on a UK trans prevalence of 0.5% and assuming a 50:50 split of males and females that means there are 100,000 male-born and 100,000 female-born transgender people in the UK with no body modifications whatsoever. 25% (25,000) of trans-identifying males seek medical treatment - most of these would be expected to be undergoing hormone treatment and/or breast implants. Only a very small proportion (0.01%) of this 20% (250) will have genital reconstruction surgery. **DATA FOR TRANSWOMEN?????**
- As of 2018 – 10 surgeons capable of performing gender reassigning surgery

Transgender and Transexual: Stats USA

Parameter Range of estimated prevalence among transgender people in the USA, % :

- TGNB identity* 0.39–2.7*
- GCS overall 25–35
- GCS in trans men 42–54
- GCS in trans women 28
- GCS in non-binary 9
- Genital surgery 4–13
- Trans men 25–50
- Hysterectomy 14
- Phalloplasty 3
- Metoidioplasty 2
- Trans women 5–13
- Non-binary assigned male at birth 1
- Non-binary assigned female at birth <1
- Chest/breast surgery 25

Becoming a trans-male

- **Hormone therapy – “T-therapy”**: Testosterone therapy for 24 months prior to surgery. T-therapy results in increased size of clitoris, with ability to get an erection. This “penis” may even be large enough for vaginal penetration. No female hormone inhibiting drugs are required.
- **Metoidioplasty** - a neopenis is constructed from the enlarged clitoris, with or without extending the urethra to allow urination while standing up, labia are used to form a scrotum.
- **Phalloplasty** - the process of constructing a neopenis using a flap (graft) from the patient's arm, thigh, abdomen, or back. Produces a larger penis than Metoidioplasty, but may lose erectile function

Becoming a trans-male



[Ftm SRS Gender Reassignment Surgery Perovic Total Phalloplasty - YouTube](#)

<http://www.youtube.com/watch?v=fe4R8B4dIO8>

Trans-male Microbiology

- Commensals:

- Primarily as normal skin flora – CNS, *Corynebacterium sp.*

- Pathogens:

- Same as circumcised *cis*-male – Chlamydia, Gonorrhoea, Anaerobes, BHS, *Candida sp.*, any organism associated with necrosis if signs of rejection of the new Phallus

Other physiological/disease considerations

- Patient may still:
 - Have a vagina:
 - Still potential for Bacterial Vaginitis should Testosterone levels be suboptimal, Trichomonas vaginalis, Vaginal candidiasis, Cervical/Vaginal Gonorrhoea, Cancer
 - Have a cervix: HPV, Cervical cancer
 - Have a uterus: Bleeding, endometriosis, PID
 - Have ovaries: Ovarian cancer
 - Vulval cancer of the neoscrotum

Becoming a Trans-female

(from a recent [05/2022] South American publication)

- **Average of 12 years hormone therapy prior to surgery (antitestosterone and eostrogen/progesterone)**
- **Average age of patient is 32.2 yrs**
- **Penile inversion vaginoplasty:**
The testicles are removed, a procedure called orchiectomy. The skin from the scrotum is used to make the labia. The erectile tissue of the penis is used to make the neoclitoris. The urethra is preserved and functional.

<https://www.youtube.com/watch?v=fxNutxrbhxw>

<https://www.youtube.com/watch?v=Xnw6o1QgX6s>

Becoming a Trans-female



Trans-female Microbiology - commensals

- Neovaginal flora typically reflects that of the uncircumcised penis, between foreskin and glans:
 - Coagulase negative staphylococci
 - Corynebacterium spp
 - Prevotella, Finegoldia, Mycobacterium, Ralstonia, and Negativicoccus, and others reflective of Bacterial Vaginosis.
- Flora is dependent on the maintenance routine of the NeoVagina:
 - Vaginal douche using soaps or mild disinfectants– Many transgender women report an “unusual” odour
 - Lubricant creams (antibacterial or non-antibacterial) – prevent dryness
 - Regular neovaginal Dilation – a must to prevent the neovagina “shrinkage” or granulation. Frequency depends on how long after surgery and frequency of sexual intercourse (although intercourse is not sufficient for neovaginal dilation).

Transfemale Microbiology - pathogens

Chlamydia

Gonorrhoea

Staphylococcus aureus

Streptococcus agalactiae,
pyogenes, dysgalactiae

Candida sp

Anaerobes –
Clostridioides and
Bacteroides, particularly
if the neovagina is not
maintained.

Other physiological/disease considerations

- Patient still has a prostate:
 - Prostatitis
 - Prostate cancer
- As a result of hormone therapy
 - Increased risk of breast cancer (especially if family history)
- Penile cancer of the neovagina
 - Tissue rejection is always a risk – Proteomics have shown that the neovagina is permanently treated as an open wound by the body – local inflammation that may have some systemic response – more research is required.

Importance of accurate clinical information

- What “sex” Vs what “gender” is the patient?
- Is the patient *cis* or Trans?
- If trans, what surgery have they had? How far have they transitioned? Are they on hormone therapy?
- What “maintenance” regime are they using?

The future.....

- Closer work with GUM to develop a specific specimen request form (electronic/paper) for transgender and transexual individuals.
- Currently 5 year wait for GRS, with 5000 cases of paediatric GIDS being referred annually = more trans-surgery
- Work with General practitioners, associate practitioners, nurses, to ensure accurate clinical information is taken.
- Work with all members of community to clarify difference between gender and sex.
- Further study is required to solidify what is normal flora of penis, and what is normal flora of the neovagina and neopenis, including stability of this flora.

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