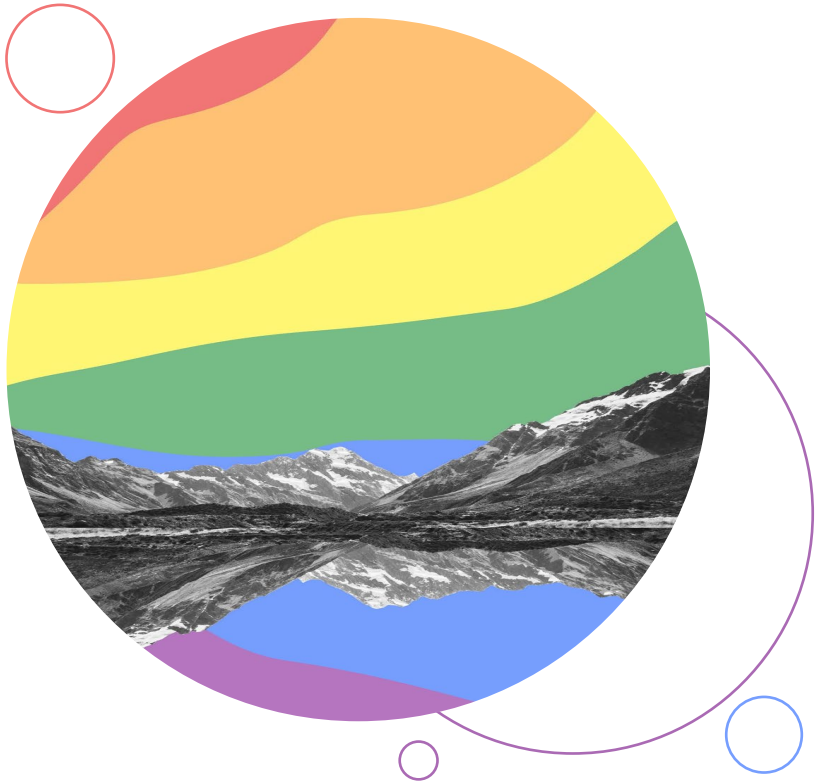
Improving Care for Transgender and Non-Binary People With and Beyond Cancer

Dr Dan Saunders
Dr Alison Berner
Stewart O’Callaghan



Date of Preparation: November 2024
Job Bag Number: GB-61266

Technical Housekeeping

- This non-promotional Medical Educational Webinar has been organised and fully funded by AstraZeneca UK for UK healthcare professionals only
- The slides have been independently developed by the speakers, with editing, formatting and compliance input from AstraZeneca UK
- This webinar is being recorded for CPD accreditation purposes. The webinar will be available on the AstraZeneca Medical Education website (link will follow via email after the webinar)
- SLIDO will be used for the interactive elements in this webinar
- Please submit any questions in advance of the Q&A session using the QR code on this slide. These questions will be covered at the end of the webinar. Questions relating to AstraZeneca products will not be discussed
- If you encounter any technical issues during the meeting please contact CancerCareSupport@productionbureau.com

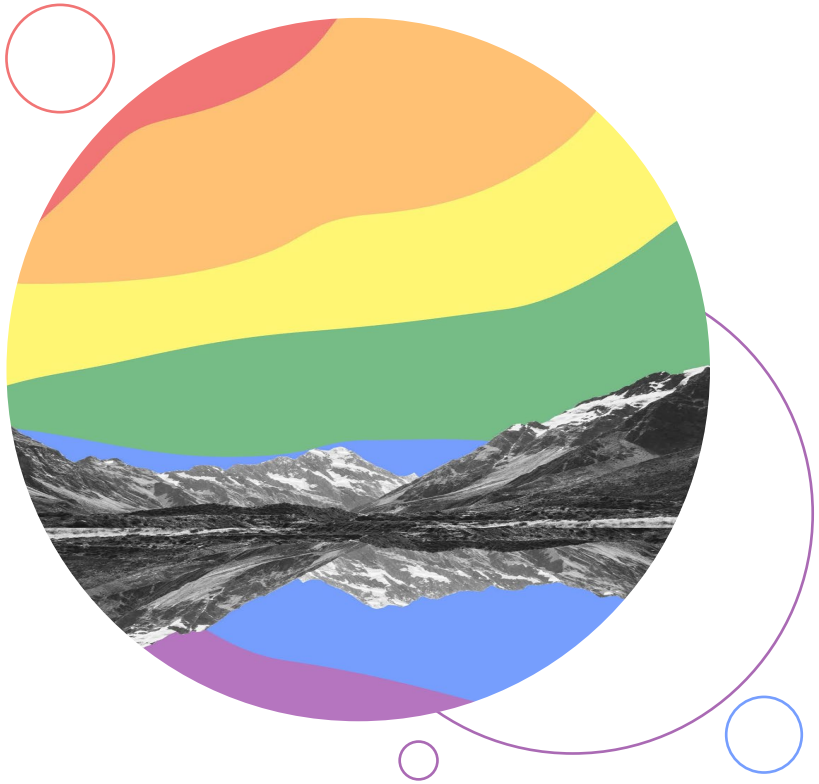
Date of Preparation: November 2024
Job Bag Number: GB-61266

Webinar Agenda

1. Welcome and Introduction
2. Definition of Gender Affirming Care: Types and Outlook on Drug-Drug Interactions
3. Transgender Patients in Breast Cancer
4. Transgender Patients in Uro-oncology
5. Transgender Patients in Gynaecological Cancers
6. Live Q&A Session

Welcome and Introduction

Dr Dan Saunders



Date of Preparation: November 2024
Job Bag Number: GB-61266

Introductions and Disclosures

Dr Dan Saunders (he/him)
Radiation Oncologist
The Christie, Manchester

Dr Alison Berner (she/her)
Academic Clinical Lecturer
Medical Oncology Barts Cancer Institute

Stewart O'Callaghan, MSc (they/them)
Founder & Chief Executive Officer
OUTpatients UK

Disclosures		
• Honoraria for non-promotional education received from AstraZeneca	• Honoraria for non-promotional education received from AstraZeneca, Pfizer, Lilly, Astellas, Eisai, Gilead and Servier	• Honoraria for non-promotional education received from Astellas, Gilead, AstraZeneca, Ipsen and GlaxoSmithKleine
• Honorary consultant clinical oncologist at The Christie, Manchester	• Support in attending meetings from Gilead	• Project funding recipient from Gilead, Pfizer
• Deputy CMO at Northern Care Alliance	• Advisory board participation with Pfizer	• Advisory board participation with Pfizer
• Chair of RCR EDI Committee (unremunerated/non-pecuniary)	• Recipient of Fellowship from the Gilead Fellowship & Medical Grants Programme	

Abbreviations: CMO: Chief Medical Officer; EDI: equity, diversity and inclusion; RCR: Royal College of Radiologists

Date of Preparation: November 2024
Job Bag Number: GB-61266

Summary: Webinar 1

- Disclosure of sexuality and gender incongruence are **underreported across all age groups** in the UK, although there is increased disclosure amongst younger populations (16-24 years). Assumptions about sexuality and gender should not be made based on age.
- Healthcare professionals (HCPs) must work to help feel LGBTIQ+ patients feel seen and supported, to **improve patient experience** and trust in healthcare, including cancer care.
- There is an unmet need for participation of the LGBTIQ+ community in **clinical trials**.
- HCPs need to carefully understand and consider the **psychosexual effects** of cancer treatment for LGBTIQ+ patients.

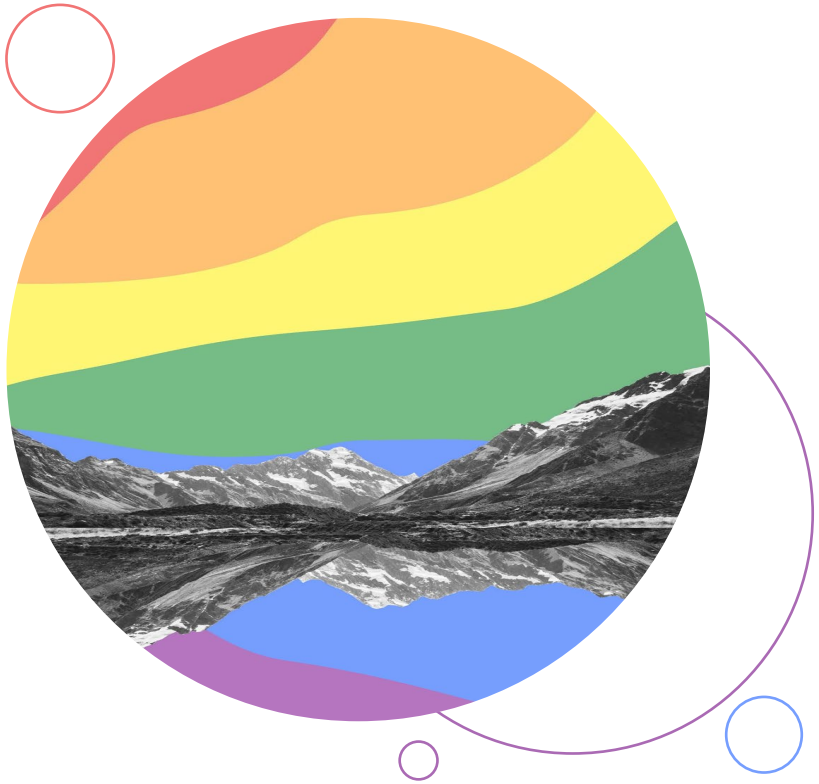
If you are registered for this Webinar Series, you will receive a link to the recording and summary of both webinars, hosted on the AstraZeneca Medical platform

Abbreviations: LGBTIQ+: Lesbian, Gay, Bisexual, Transgender, Intersex, Queer, Including Others; UCATS: UK Cancer and Transition Service; UK: United Kingdom

Date of Preparation: November 2024
Job Bag Number: GB-61266

Introductory Poll

Dr Dan Saunders



Date of Preparation: November 2024
Job Bag Number: GB-61266

Introductory Poll: Question 1

I understand how receiving gender affirming hormone therapy (GAHT) may impact cancer risk and cancer care for transgender and non-binary patients.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

This question will be revisited at the end of the webinar

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Introductory Poll: Question 2

I am aware of the drug-drug interactions between cancer therapies and GAHT.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

This question will be revisited at the end of the webinar

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Introductory Poll: Question 3

I am comfortable talking to transgender patients about the need to stop/pause GAHT to avoid drug-drug interactions with cancer therapies.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

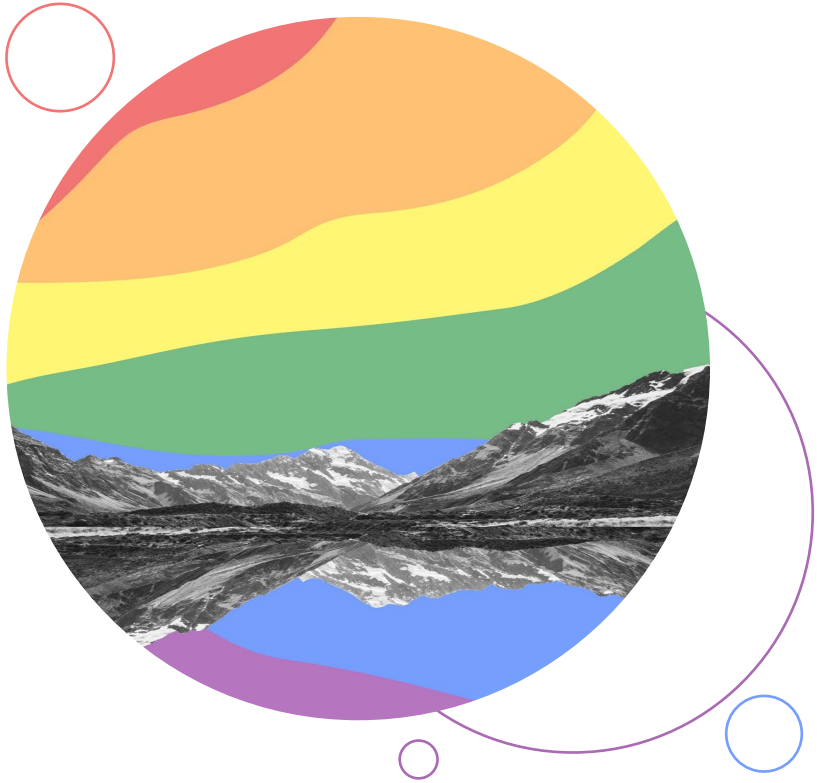
This question will be revisited at the end of the webinar

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Definition of Gender Affirming Care: Types and Outlook on Drug-Drug Interactions

Stewart O’Callaghan
Dr Alison Berner



Abbreviations: LGBTIQ+: Lesbian, Gay, Bisexual, Transgender, Intersex, Queer, Including Others

Date of Preparation: November 2024
Job Bag Number: GB-61266

Dr Alison Berner (she/her)

Academic Clinical Lecturer
Medical Oncology Barts Cancer Institute

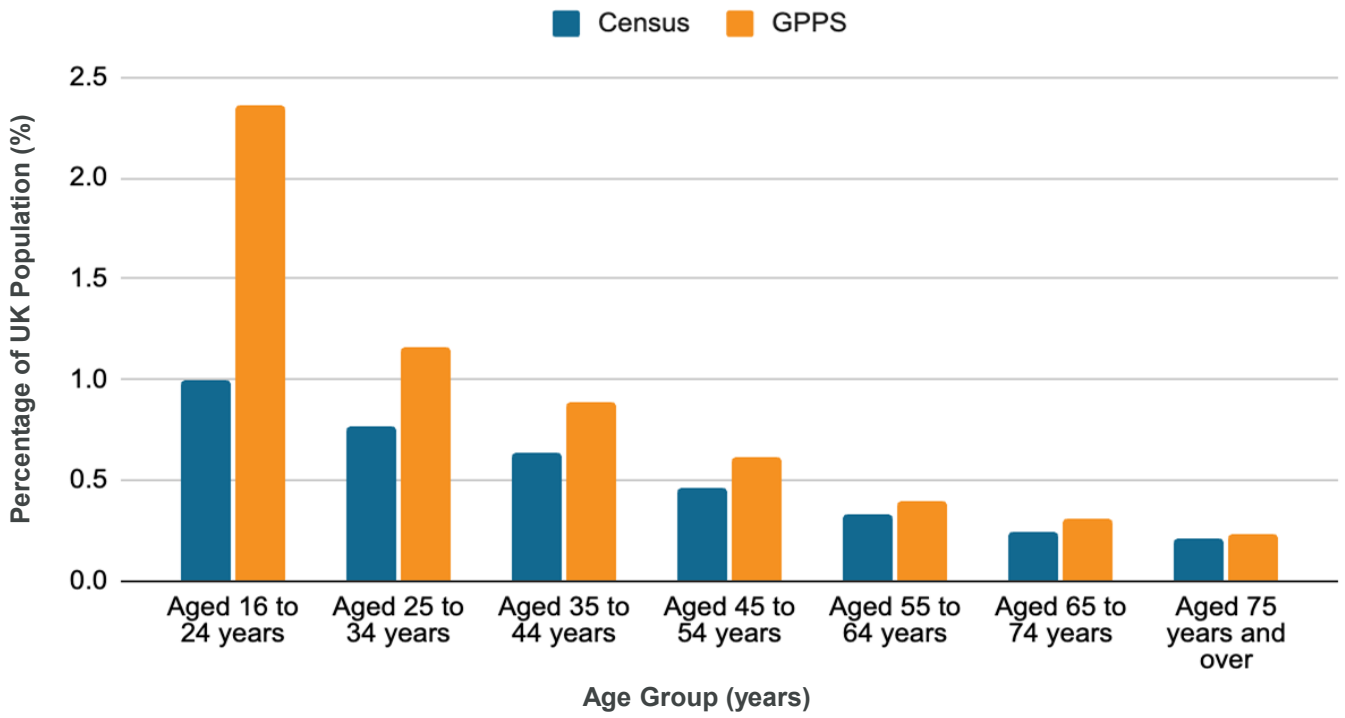
Date of Preparation: November 2024
Job Bag Number: GB-61266

Stewart O’Callaghan, MSc (they/them)

Founder & Chief Executive Officer
OUTpatients UK

Date of Preparation: November 2024
Job Bag Number: GB-61266

Percentage of UK Population Reporting Gender Incongruence



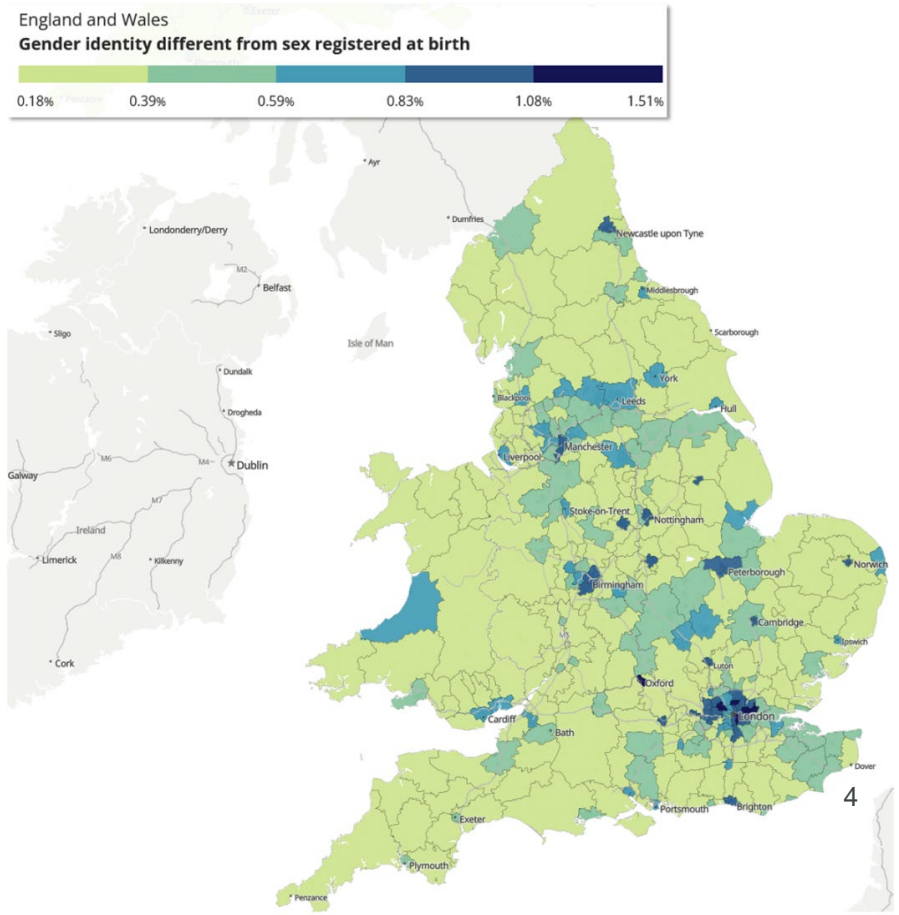
An average of **0.5%** and **0.8%** of the UK population report gender incongruence according to census and GPPS data, respectively[1,2]

Abbreviations: GPPS: GP Patient Survey

References: 1. Adapted from NHS GP Patient Survey. 2023. Available at: https://www.gp-patient.co.uk/surveysandreports2023 (Last accessed: September 2024); 2. Adapted from ONS. 2023. https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/articles/genderidentityageandsexenglandandwalescensus2021/2023-01-25 (Last accessed: September 2024)

Date of Preparation: November 2024
Job Bag Number: GB-61266

Who and Where?



ONS 2021[1] asked:
Is the gender you identify with the same as your sex registered at birth?

- Yes: 93.5%
- No: 0.5%
- No response: 6%

GPPS[2] asked:
Is your gender identity the same as the sex you were registered at birth?

- Yes: 98%
- No: 1%
- No response: 1%

An international systematic review[3]:

- 0.5-1% identify as transgender
- Up to 4.5% as gender diverse

Abbreviations: GPPS: GP Patient Survey; ONS: Office for National Statistics

References: 1. Adapted from: ONS 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/articles/genderidentityageandsexenglandandwalescensus2021/2023-01-25 (Last accessed: October 2024); **2.** Adapted from NHS GP Patient Survey. 2023. Available at: https://www.gp-patient.co.uk/surveysandreports2022 (Last accessed: October 2024); **3.** Zhang, Q et al. Int J Transgender Health. 2020;21(2):125-137; 4. Adapted from: ONS 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/bulletins/genderidentityenglandandwales/census2021 (Last accessed: October 2024)

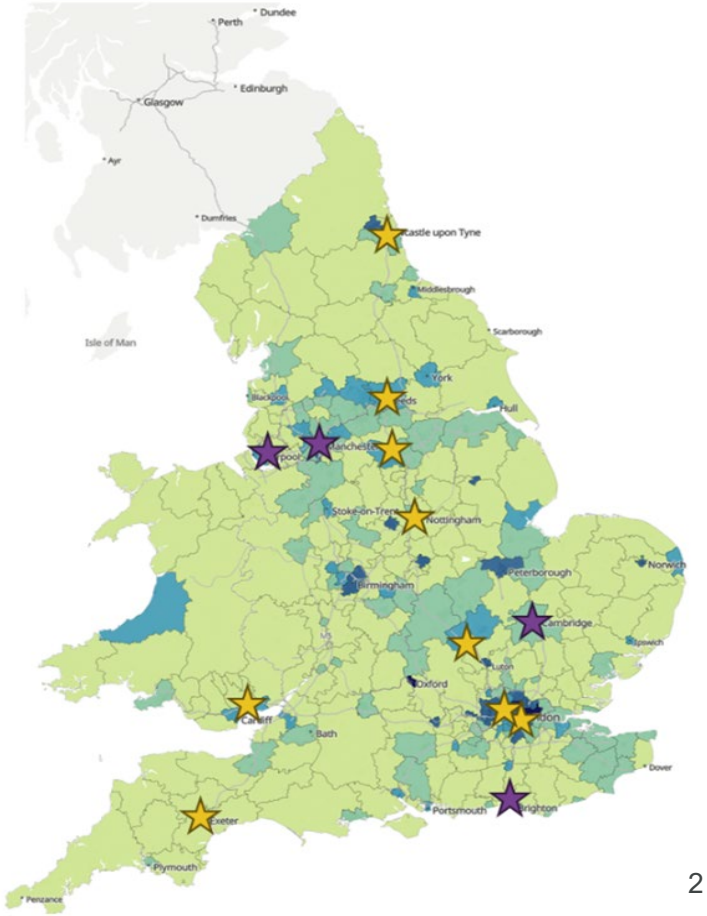
Date of Preparation: November 2024
Job Bag Number: GB-61266

Gender Affirming Care Provision

1

Service	Referral Information
Belfast Brackenburn	18+, GP referral only
Belfast KOI	Under 18s, GP referral only
Cardiff Welsh Gender Service	18+, GP referral only
Edinburgh Chalmers	17+, GP referral only
Exeter NHS	17+, allows self-referral
Glasgow Sandyford	All ages, allows self-referral
Glasgow Youth Sandyford Youth	All ages, allows self-referral
Grampian, Orkney and Shetland	18+, GP referral only
Inverness Highland GIS	17+, GP referral only
Leeds NHS	17+, allows self-referral
London GIC Tavistock	17+, allows self-referral
London TransPlus	17+, invitation only
Newcastle NHS	17+, not accepting referrals
Northants Daventry	17+, allows self-referral
Nottingham	17+, GP referral only
Sheffield Peterbrook	17+, GP referral only

Pilot Services	Referral Information
Manchester Indigo	17+, invitation only
Merseyside CMAGIC	17+, not accepting referrals
NCTH EOE	17+, allows self-referral
Sussex NHS	17+, GP referral only
Sheffield Peterbrook	17+, GP referral only



2

Abbreviations: CMAGIC: Cheshire and Merseyside Adult Gender Identity Collaborative; GIC: Gender identity clinic; GIS: Gender Identity Service; GP: General Practice; KOI: Knowing our identity; NCTH EOE: Nottingham Centre for Transgender Health East of England

References: 1. Adapted from: TransActual Gender Clinics. Available at: https://transactual.org.uk/medical-transition/gender-dysphoria-clinics/ (Last accessed: October 2024); 2. Adapted from: ONS 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/bulletins/genderidentityenglandandwales/census2021 (Last accessed: October 2024)

Date of Preparation: November 2024
Job Bag Number: GB-61266

Adult Gender Affirming Care Provision

GENDER IDENTITY CLINIC STAFF

"Core clinicians" – medical doctors, psychologists and nurses	"Endocrinology – nurses and doctors	Speech and language therapists	Psychologists	Pathway coordinators

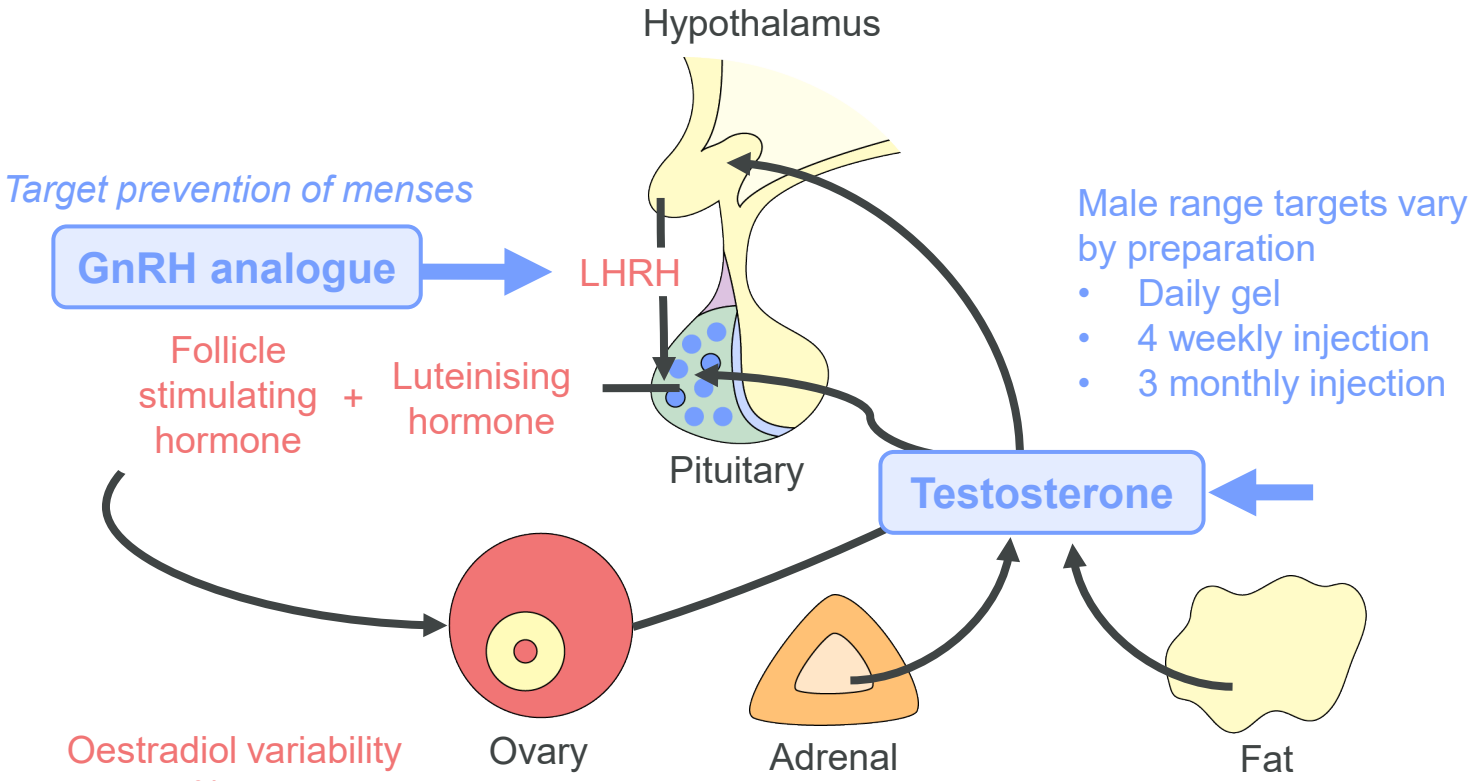
SERVICES

Assessment	Endorsement for hormones GP prescribes with input post-discharge	Referral for surgery Surgical providers are distinct	Speech and language therapy	Counselling psychology May signpost to 3rd sector

Abbreviations: GP: General Practice
Reference: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Masculinising Interventions

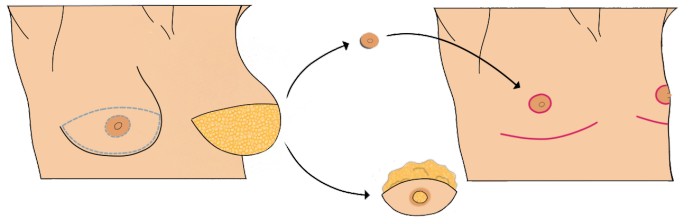


Male range targets vary by preparation
- Daily gel
- 4 weekly injection
- 3 monthly injection

Oestradiol variability
- ~10% male range
- Usually postmenopausal levels ~100pmol/l

1

Male chest reconstruction[2]



Hysterectomy

Salpingo-oophorectomy

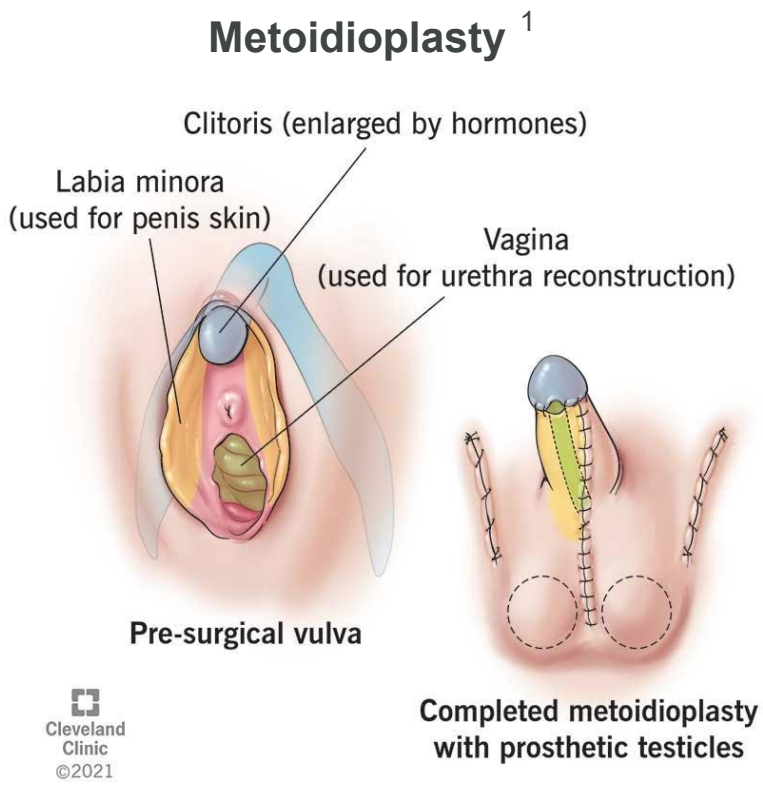
Vaginectomy

Abbreviations: GnRH: Gonadotropin-releasing hormone; LHRH: Luteinising hormone-releasing hormone

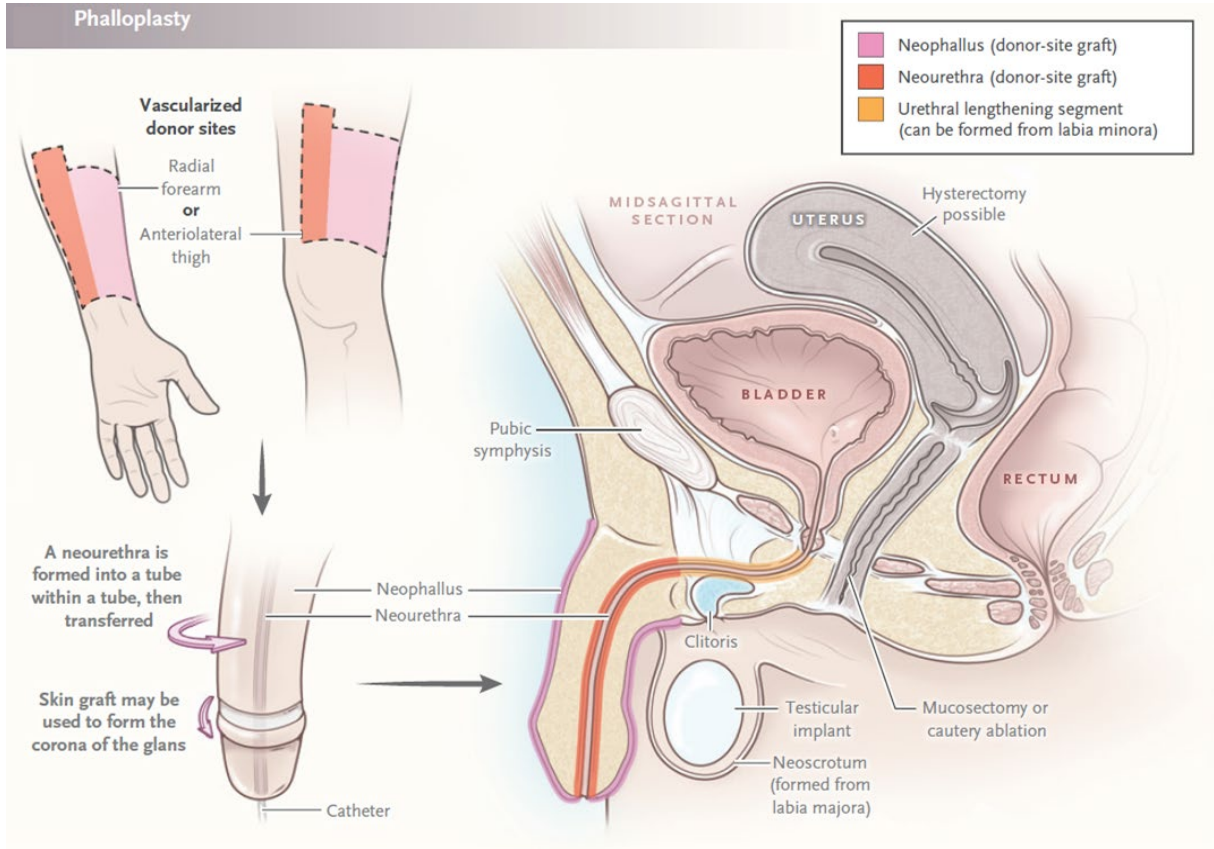
References: 1. Adapted from: Drawings provided by Dr Leighton Seal **2.** Gender Surgery Amsterdam. Available at: https://gendersurgeryamsterdam.com/surgery-for-transmen/top-surgery/ (Last accessed: October 2024)

Date of Preparation: November 2024
Job Bag Number: GB-61266

Masculinising Interventions



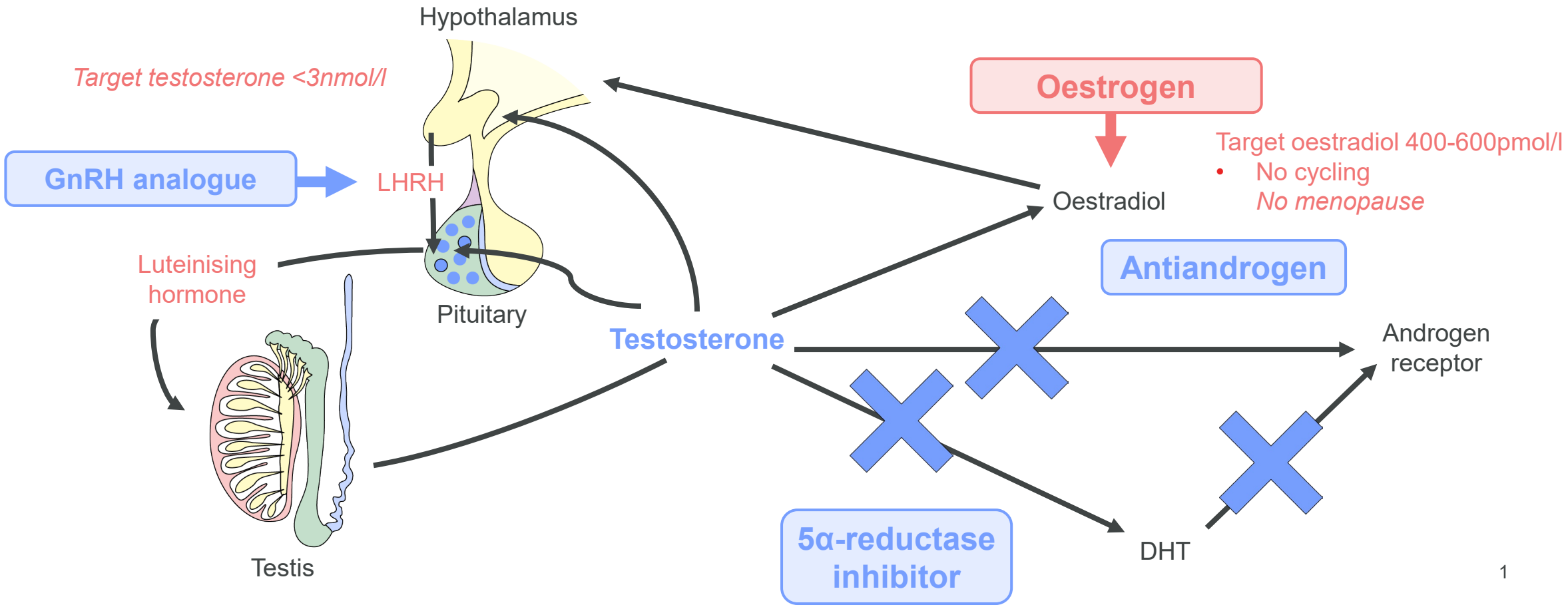
2



References: 1. Cleveland Clinic USA 2021. Available at: https://my.clevelandclinic.org/health/procedures/21668-metoidioplasty (Last accessed: October 2024) 2. Safer, J et al. N Engl J Med. 2019;381:2451-2460

Date of Preparation: November 2024
Job Bag Number: GB-61266

Feminising Interventions



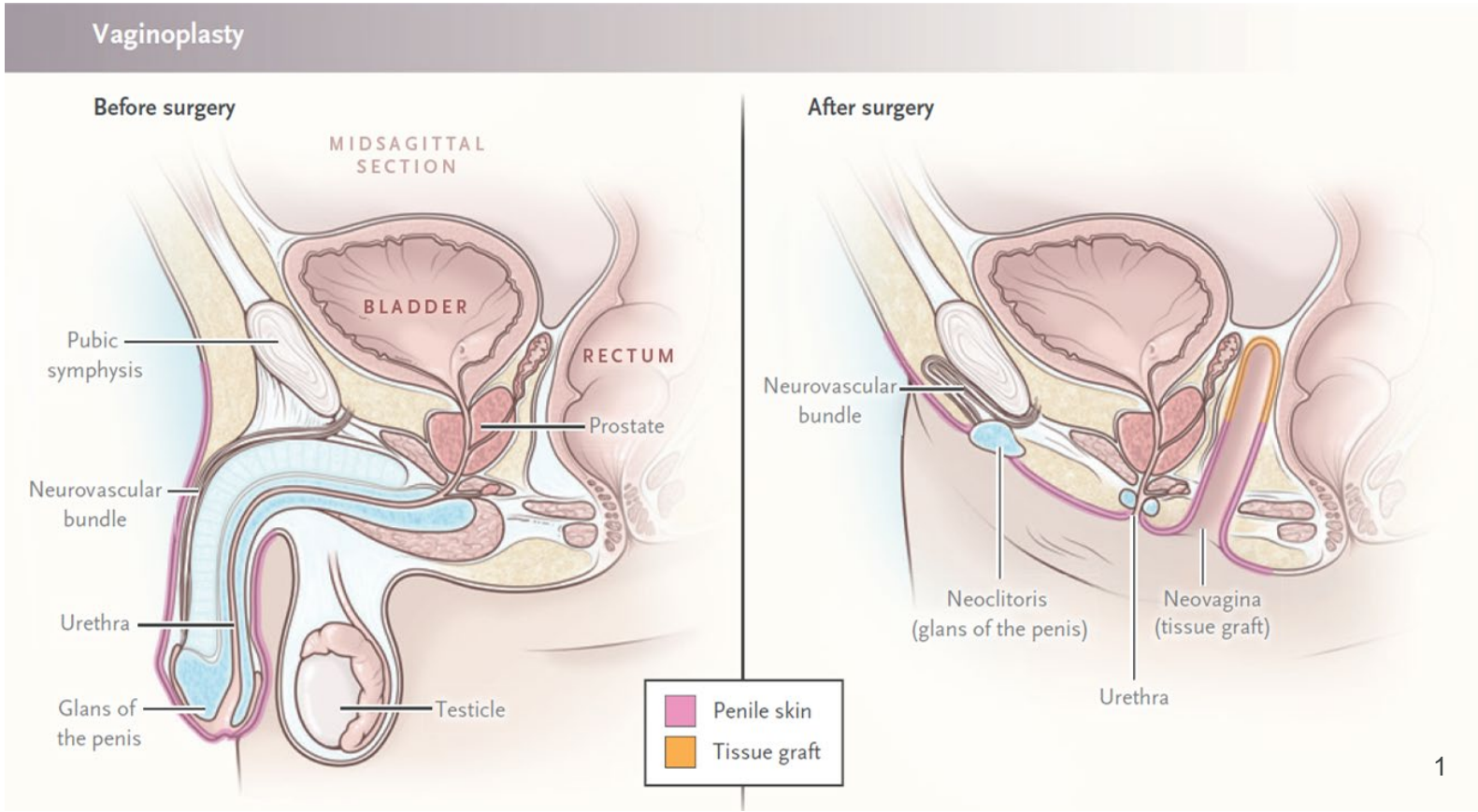
Abbreviations: DHT: Dihydrotestosterone; GnRH: Gonadotropin-releasing hormone; LHRH: Luteinising hormone-releasing hormone

References: 1. Adapted from: Drawings provided by Dr Leighton Seal

Date of Preparation: November 2024
Job Bag Number: GB-61266

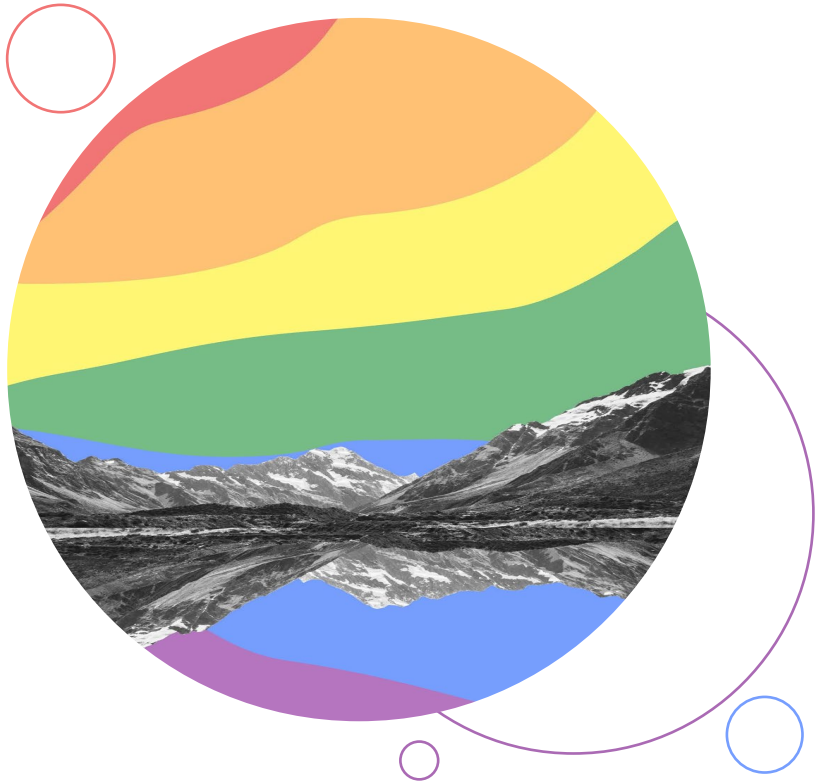
Feminising Interventions

- **Facial hair removal**
- **Vulvoplasty**
- **Orchidectomy**
- **Breast augmentation**
- **Tracheal shave**
- **Facial feminisation**



References: 1. Safer, J et al. N Engl J Med. 2019;381:2451-2460

Date of Preparation: November 2024
Job Bag Number: GB-61266



The Intersection of Cancer with Gender-Affirming Care

Date of Preparation: November 2024
Job Bag Number: GB-61266

Potential Impacts of Cancer for Trans Patients

QUALITY OF CARE

- Anticipated discrimination
- Experienced discrimination
- Misgendering
- “Trans broken arm syndrome”
- Poor communication between healthcare teams (pass-the-parcel)
- Lack of accurate information
- Lack of inclusive information
- Lack of inclusive systems

CHANGES TO CARE

- Altered screening
- Stopping/pausing hormones
  - Risks of recurrence and progression
  - Drug interactions/effects
  - Blood clot risk
- Appropriate HRT
- Unclear which risk profile to use (e.g. male/female or menopause status)
- Radiotherapy
- Surgeries

ADDITIONAL NEEDS

- Psychology
- Psychosexual counselling
- Fertility
- End-of-life
- Chosen vs biological family / estrangement
- Financial needs / debt

Abbreviations: HRT: Hormone Replacement Therapy
Reference: Based on speaker clinical experience

Date of Preparation: October 2024
Job Bag Number: GB-61266

UK Cancer and Transition Service (UCATS)

Aim: To provide integrated, holistic and personalised care to gender diverse people affected by cancer

About UCATS

- **Virtual** multidisciplinary team meeting (MDM) and clinic with dial in options for patient's care teams
- Founded in **June 2022** following PPI and **co-development** with service users & OUTpatients charity
- 1-2 afternoons per month
- Core expertise: Medical Oncology, Gender Affirming Care, HIV Oncology, Sexual Health, Pharmacy, Palliative Care, Clinical Nurse Support
- Other experts are dialled in as needed e.g. palliative care, gender-affirming surgeons

UCATS
– UK Cancer and Transition Service –

Eligibility

- Gender diverse people **anywhere in the UK** with cancer now or in the past
- Regardless of where they source gender transitioning care

Abbreviations: MDM: Multidisciplinary Team Meeting; PPI: Patient and Public Involvement; UCATS: UK Cancer and Transition Service

References: UCATS. 2024. Available at: UK Cancer and Transition Service - Transplus (wearetransplus.co.uk) (Last accessed: September 2024)

Date of Preparation: November 2024
Job Bag Number: GB-61266

UK Cancer and Transition Service (UCATS)

What we offer

- **In-clinic review** for patient willing to travel and who find technology challenging
- **Liaison** between all teams involved in the patient's care
- Ability to **fast-track** or coordinate gender affirming care when needed
- Letter of recommendations
- **Signposting** to other important services such as:
  - Psychotherapy
  - Psychosexual counselling
  - Peer support
- Option to participate in related **research** and PPI

UCATS
– UK Cancer and Transition Service –

Referrals

Clinician and self-referrals can be made via email (chelwest.ucats@nhs.net) with forms online

Abbreviations: PPI: Patient and Public Involvement

References: UCATS. 2024. Available at: UK Cancer and Transition Service - Transplus (wearetransplus.co.uk) (Last accessed: September 2024)

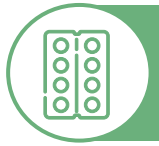
Date of Preparation: November 2024
Job Bag Number: GB-61266

A Word About “Data”

Sex and gender are conflated in most medical records & cancer registries globally

Trans status may be inferred from coding, which **may not be accurate.** There may be incomplete linkage to:

Lifestyle factors



Gender affirming hormones

Gender affirming surgeries

There are unique methodological considerations to **use of health records** or **medical claims databases** in different countries:

- **Prevalence** vs **incidence** codes
- **Double counting** due to change of provider insurer
- Temporality of interventions
- Differences in **gender affirming care** and **ways records are changed**

References: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Some Examples:

JNCI J Natl Cancer Inst (2021) 113(9): djab028

doi: 10.1093/jnci/djab028
First published online March 11, 2021
Article

Cancer Stage, Treatment, and Survival Among Transgender Patients in the United States

Sarah S. Jackson, PhD, MPH[1,*] Xuesong Han, PhD[2] Ziling Mao, MPH[2,3] Leticia Nogueira, PhD, MPH[2]
Gita Suneja, MD, MS[4,5] Ahmedin Jemal, DVM, PhD[2] Meredith S. Shiels, PhD[1]

Used the US National Cancer Database

- Coding for trans status
- Unable to discern the sex someone was assigned at birth

Greater proportion of transgender people diagnosed with:

- Advanced stage lung cancer
- Anus
- Liver
- Skin (non-melanoma)
- Lymphoma (Hodgkin & non-Hodgkin)

Lower proportion of transgender people diagnosed with:

- Prostate cancer

Abbreviations: GAHT: Gender affirming hormone therapy; US: United States

References: Jackson, S et al. J Natl Cancer Inst. 2021;113(9):1221-1227

Date of Preparation: November 2024
Job Bag Number: GB-61266

Some Examples:

JAMA Oncology | Brief Report

Prevalence and Factors Associated With Prostate Cancer Among Transgender Women

Celeste Manfredi, MD; Antonio Franco, MD; Francesco Ditonno, MD; Eugenio Bologna, MD; Leslie Claire Licari, MD; Costantino Leonardo, MD; Alessandro Antonelli, MD, PhD; Cosimo De Nunzio, MD, PhD; Edward E. Cherullo, MD, PhD; Marco De Sio, MD, PhD; Riccardo Autorino, MD, PhD

Used US claims data[2]

- Coding for GAHT (oestrogens), surgeries and prostate cancer **history**
- Did not compare to cis men in the same database

Issues:[1]

- Risks of double counting
  - Prevalence and incidence codes
  - Change of employer means change of insurer
- Lack of biological plausibility
- Lack of validation in cis male cohort
- No temporal information on oestradiol use & orchiectomy

Reported:[2]

- **Lower** prostate cancer incidence with GAHT, but **higher** with orchiectomy
- Greater risk of biochemical recurrence and bone metastasis with GAHT

Abbreviations: GAHT: Gender affirming hormone therapy; US: United States

References: 1. Based on speaker clinical opinion; 2. Manfredi, C et al. JAMA Oncol. 2024.

Date of Preparation: November 2024
Job Bag Number: GB-61266

Some Examples:

Journal of Medical Systems (2024) 48:96
https://doi.org/10.1007/s10916-024-02111-w

CORRESPONDENCE

Doing Justice: Ethical Considerations Identifying and Researching Transgender and Gender Diverse People in Insurance Claims Data

Ash B. Alpert[1,2,3,4] · Gray Babbs[5] · Rebecca Sanaeikia[6] · Jacqueline Ellison[6,7] · Landon Hughes[8,9] · Jonathan Herington[10] · Robin Dembroff[11]

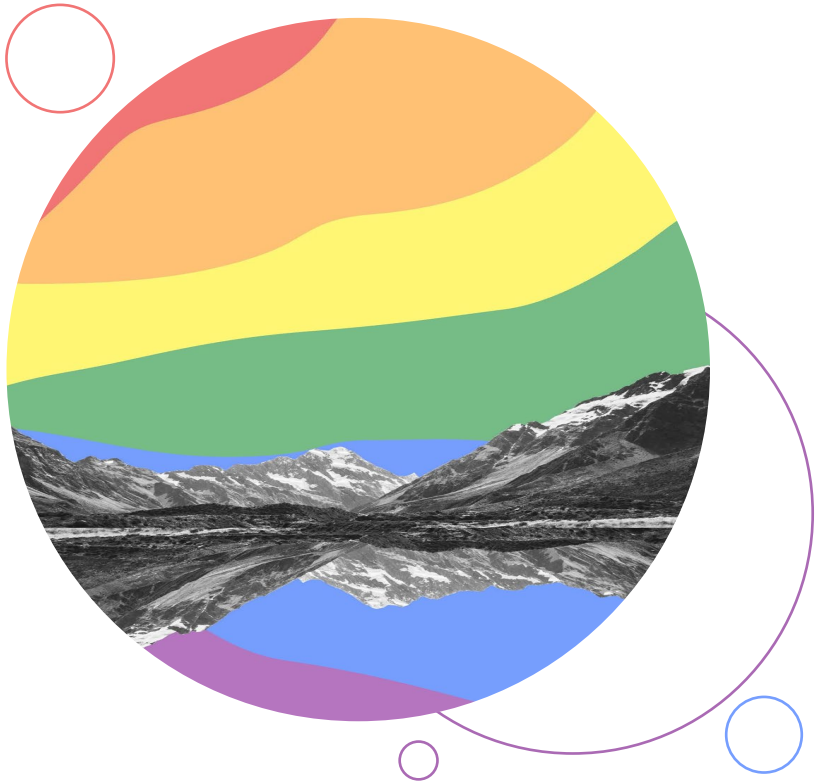
Received: 18 December 2023 / Accepted: 18 September 2024

References: Alpert, A et al. Journal of Medical Systems. 2024;48(1):96

Date of Preparation: November 2024
Job Bag Number: GB-61266

Transgender Patients in Breast Cancer

Dr Alison Berner
Stewart O’Callaghan



Date of Preparation: November 2024
Job Bag Number: GB-61266

For Trans Women and Those on Feminising GAHT

Experience 1/3 of the risk of breast cancer of cis women[1]

- Possibly an over-estimate as UK use less progestogen use compared to the Dutch[2]
- Likely to be higher the earlier you start oestrogen[2]

Recommended to undergo breast screening from national screening age once they have had breast development[3]

- Those with BRCA mutations, other highs variants or strong family history are eligible for enhanced screening and risk reducing measures[4,5]

Experience challenges in care[2]

- Detection of lumps after breast implants
- Dysphoria around mastectomy
- Not wanting to stop oestrogen if the cancer is sensitive to oestrogen

Abbreviations: BRCA: Breast cancer gene

References: 1.de Blok, C et al. The BMJ. 2019;365:l1652; 2. Based on speaker clinical experience; 3. GOV UK 2023. Available at: https://www.gov.uk/government/publications/nhs-population-screening-information-for-transgender-people (Last accessed: October 2024); 4. Giblin, J et al. BJC Rep. 2023;1(1); 5. Coad, B et al. Curr Genet Med Rep. 2021;9:59-69

Date of Preparation: November 2024
Job Bag Number: GB-61266

For Trans Men and Those Having Masculinising GAHT/Surgery

Experience 1/5 of the risk of breast cancer of cis women[1]

This is likely due to combination of:[2]

- Top surgery
- Less oestrogen
- Action of testosterone

Only need routine breast screening from national screening age if they have not had top surgery[3]

- Those with BRCA mutations, other highs variants or strong family history are eligible for enhanced screening and risk reducing measures[4,5]

Experience challenges in care[2]

- Navigating ‘pinked’ spaces and gendered language
- Disruption to transition - Incidental tumours at male chest reconstruction
- Changes to the surgical pathway:
  - Not wanting ‘female’ reconstruction
  - Accessing contralateral mastectomy
- Testosterone use:
  - In oestrogen receptor positive disease
  - In androgen receptor positive disease

Abbreviations: BRCA: Breast cancer gene

Reference: 1. de Blok, C et al. The BMJ. 2019;365:l1652; 2. Based on speaker clinical experience; 3. GOV UK 2023. Available at: https://www.gov.uk/government/publications/nhs-population-screening-information-for-transgender-people (Last accessed: October 2024); 4. Giblin, J et al. BJC Rep. 2023;1(1) 6. Coad, B et al. Curr Genet Med Rep. 2021;9:59-69

Date of Preparation: November 2024
Job Bag Number: GB-61266

Surgical Case

Alex, 52 years old, non-binary

Self-referral to UCATS:

- **Self-detected left breast** T3 N1 M0 G3 IDC, ER +ve, HER2 +ve
- **Neoadjuvant chemotherapy and anti-HER2**
- **Planned left mastectomy** followed by adjuvant anti-HER2, radiotherapy & endocrine therapy

Issues raised:

- **Desired bilateral mastectomy without reconstruction**
- Did **not** want future gender-affirming hormones
- **Unclear** if they would want hysterectomy in the future

UCATS outcome:

Able to carry out assessment to support bilateral mastectomy with no reconstruction

Abbreviations: ER: Oestrogen receptor; HER2: Human epidermal growth factor receptor 2; IDC: Invasive ductal carcinoma

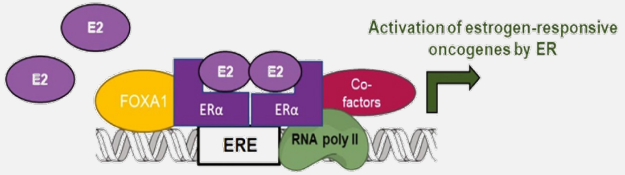
Reference: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

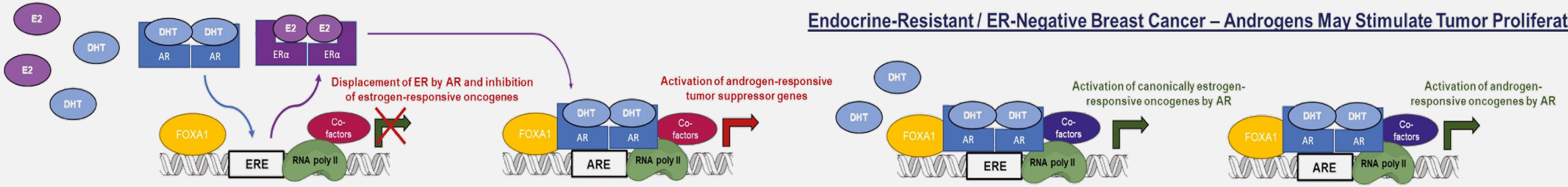
Androgen Receptor Positivity in Trans Men

FOR CIS WOMEN[1]

ER-Positive Breast Cancer – Estrogens Stimulate Tumor Proliferation



ER-Positive Breast Cancer – Androgens Inhibit Estrogen-Driven Proliferation



FOR TRANS MEN

- How will these tumours behave in response to environments with much higher testosterone?
- Clinically, we have seen this hold true for ER +ve[2]
- Can we derive a measure of transcriptional pathway activity, not just receptor expression?

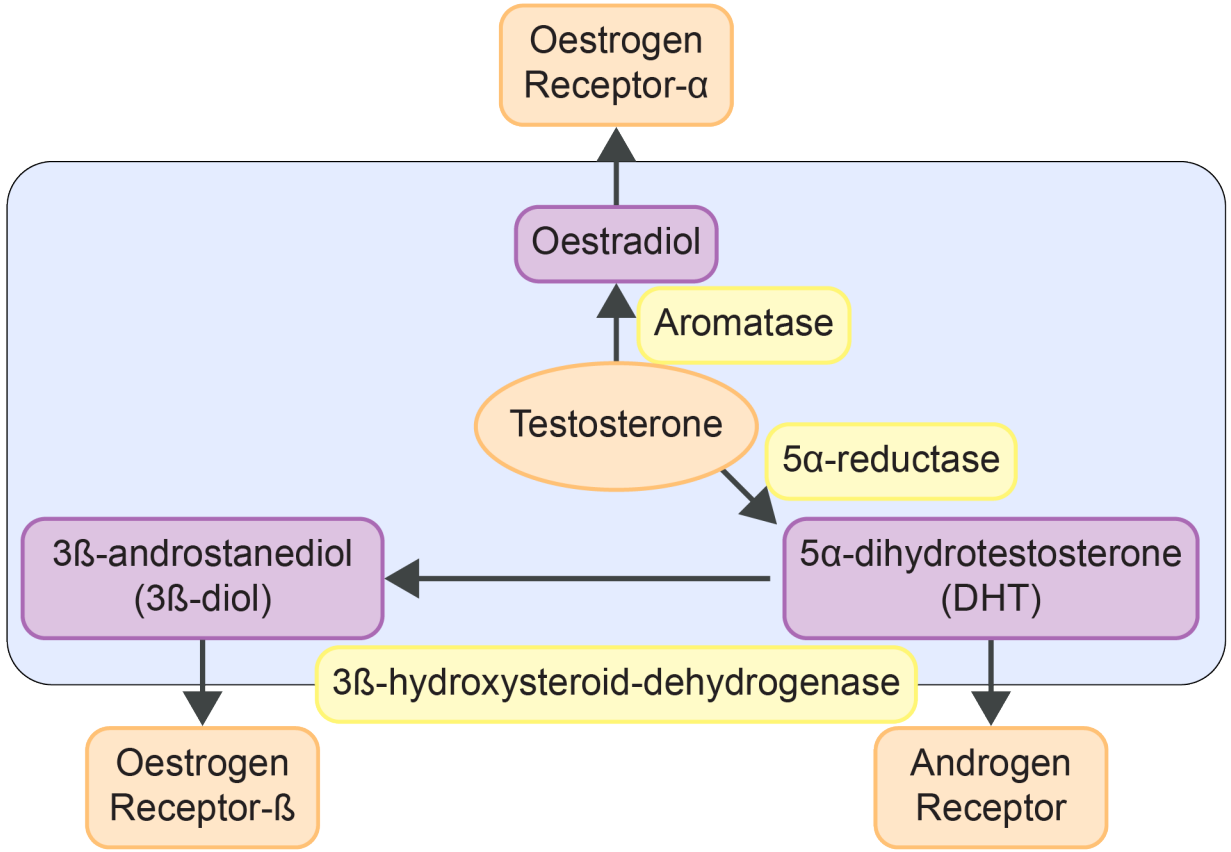
Endocrine-Resistant / ER-Negative Breast Cancer – Androgens May Stimulate Tumor Proliferation

Abbreviations: ER: Estrogen receptor

References: 1. Dai, C and Ellisen L. Oncologist. 2023;28(5):383-391; 2. Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Adjuvant Treatment

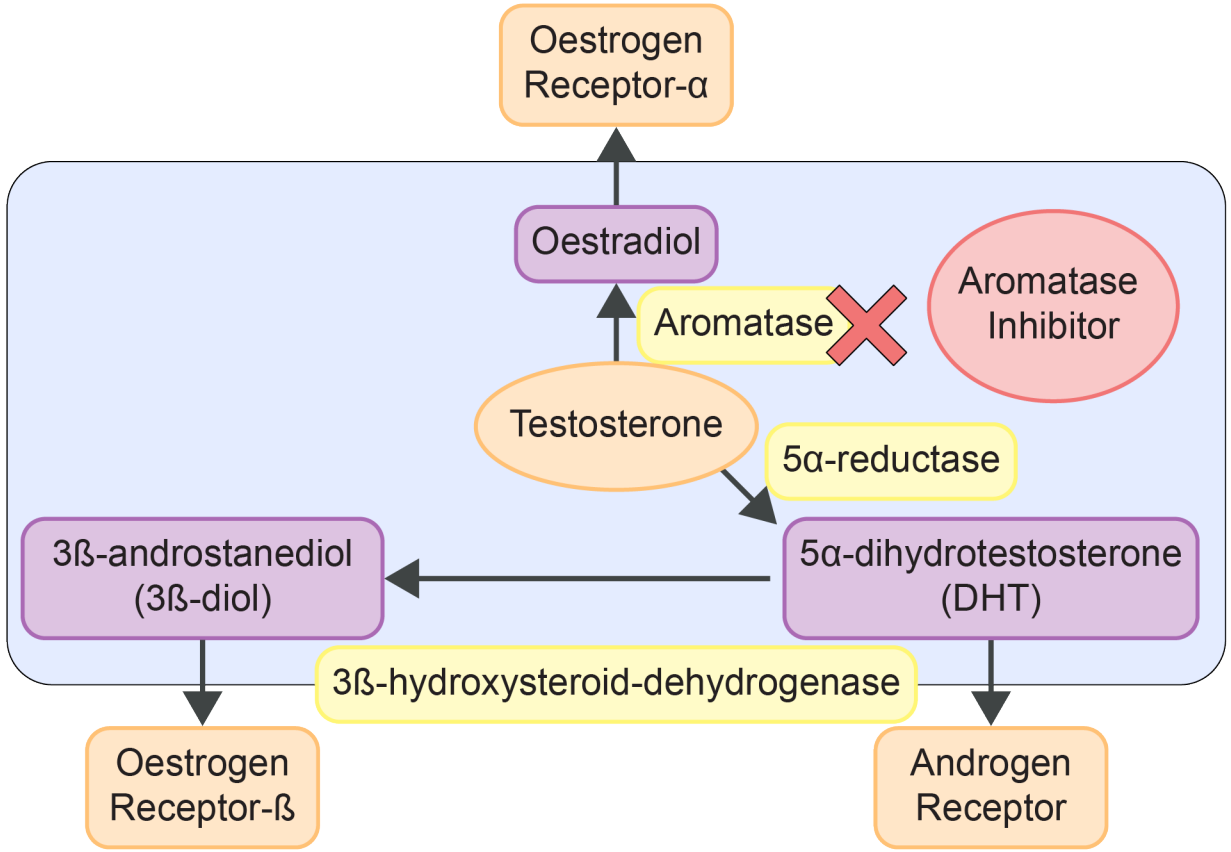


Abbreviations: ER: Estrogen receptor; KND: Kisspeptin, neurokinin B and dynorphin; OFS: Ovarian function suppression; SERM: Selective estrogen receptor modulator; SoC: Standard of care

References: 1. Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Adjuvant Treatment

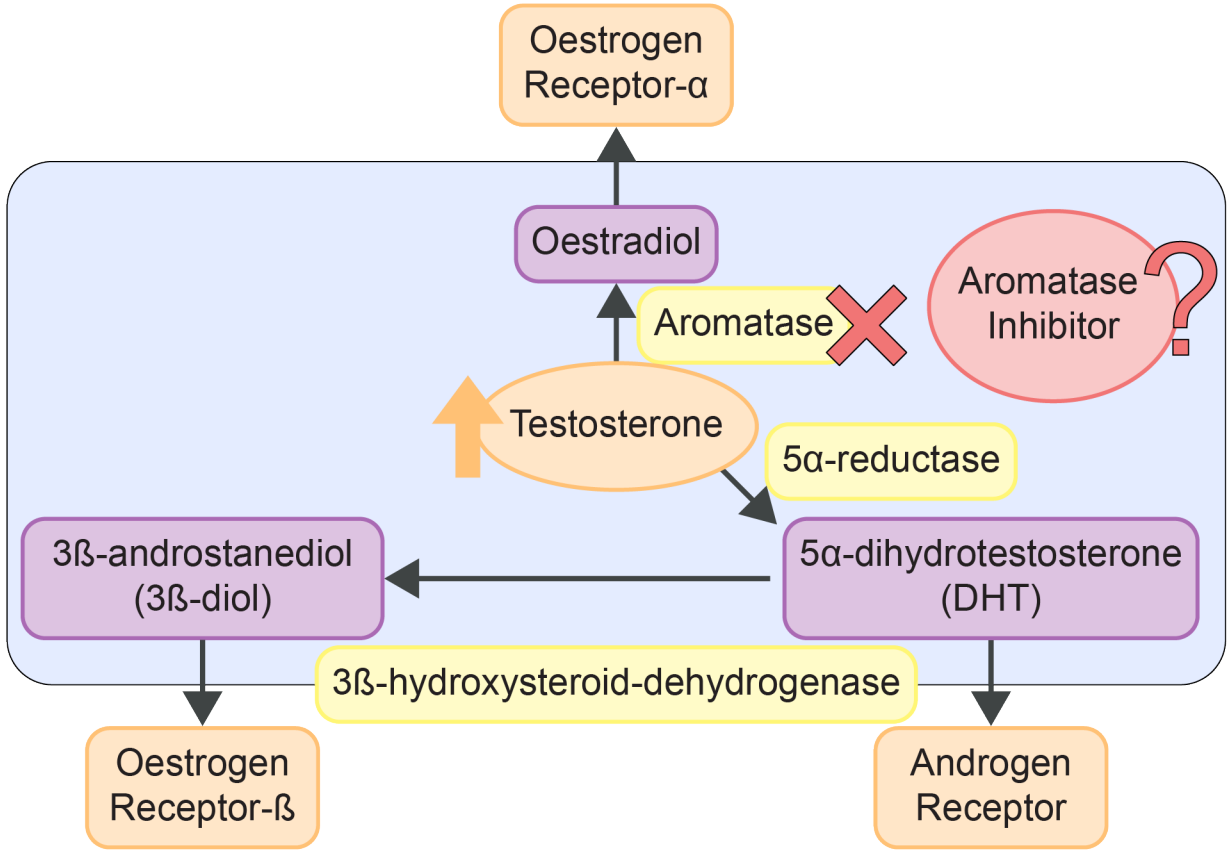


Abbreviations: ER: Estrogen receptor; KND: Kisspeptin, neurokinin B and dynorphin; OFS: Ovarian function suppression; SERM: Selective estrogen receptor modulator; SoC: Standard of care

References: 1. Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Adjuvant Treatment



Abbreviations: ER: Estrogen receptor; KND: Kisspeptin, neurokinin B and dynorphin; OFS: Ovarian function suppression; SERM: Selective estrogen receptor modulator; SoC: Standard of care

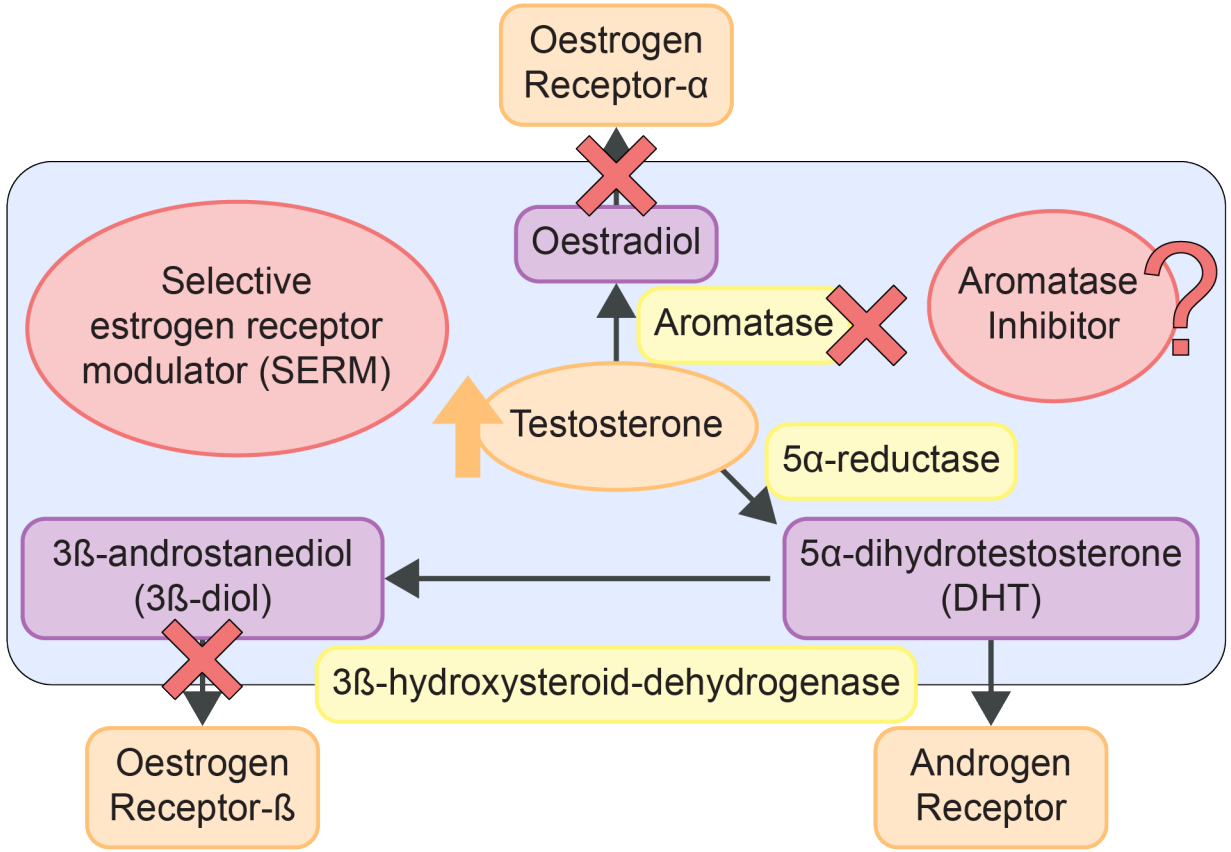
References: 1. Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Adjuvant Treatment

Selective estrogen receptor modulator (SERM)

- Blocks ER
- Used for cis men
- Increases risk of uterine cancer
- More poorly tolerated
- Direct action on KNDy neurons
  - Testosterone can mimic oestradiol effects if using aromatase inhibitor only



Aromatase inhibitor 1

- SoC in post-menopausal cis women
- No published data on oestradiol levels in response to aromatase inhibitor
- Can use and monitor oestradiol

Aromatase inhibitor 2

- SoC in pre-menopausal with OFS
- Interferes with oestradiol assay

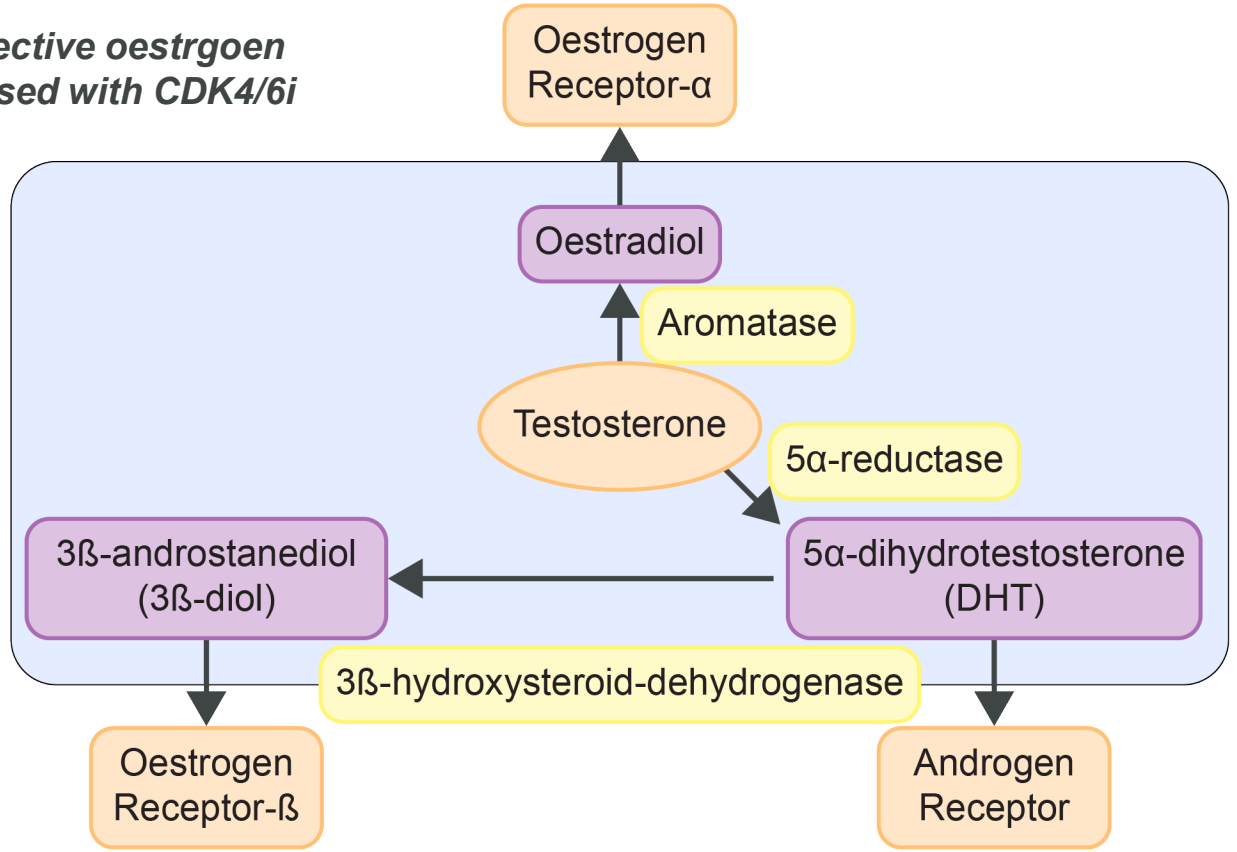
Abbreviations: ER: Estrogen receptor; KND: Kisspeptin, neurokinin B and dynorphin; OFS: Ovarian function suppression; SERM: Selective estrogen receptor modulator; SoC: Standard of care

References: 1. Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Metastatic Treatment

Only aromatase inhibitor or selective oestrgoen receptor degrader (SERD) licensed with CDK4/6i



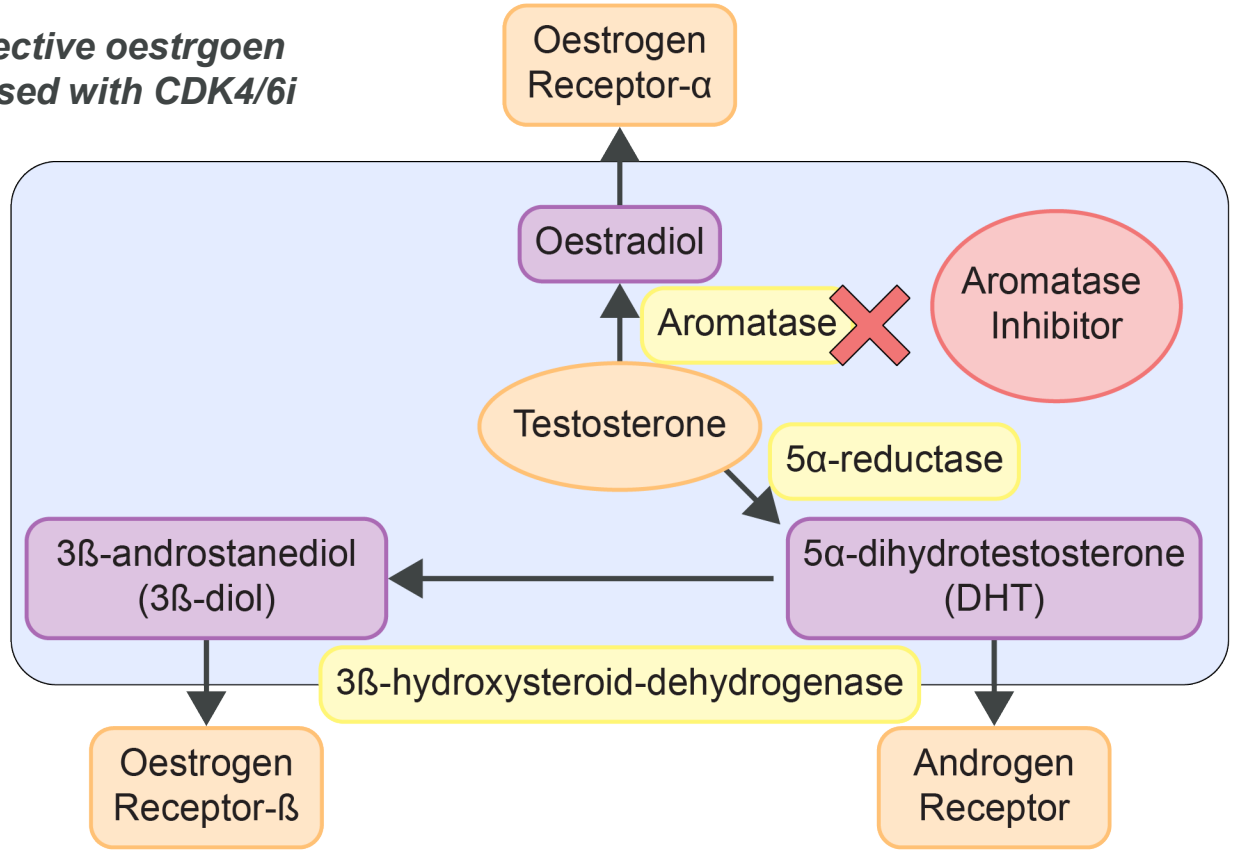
Abbreviations: ER: Estrogen receptor; CDK: Cyclin-dependent kinase; SERD: Selective estrogen receptor degrader

References: Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Metastatic Treatment

Only aromatase inhibitor or selective oestrgoen receptor degrader (SERD) licensed with CDK4/6i



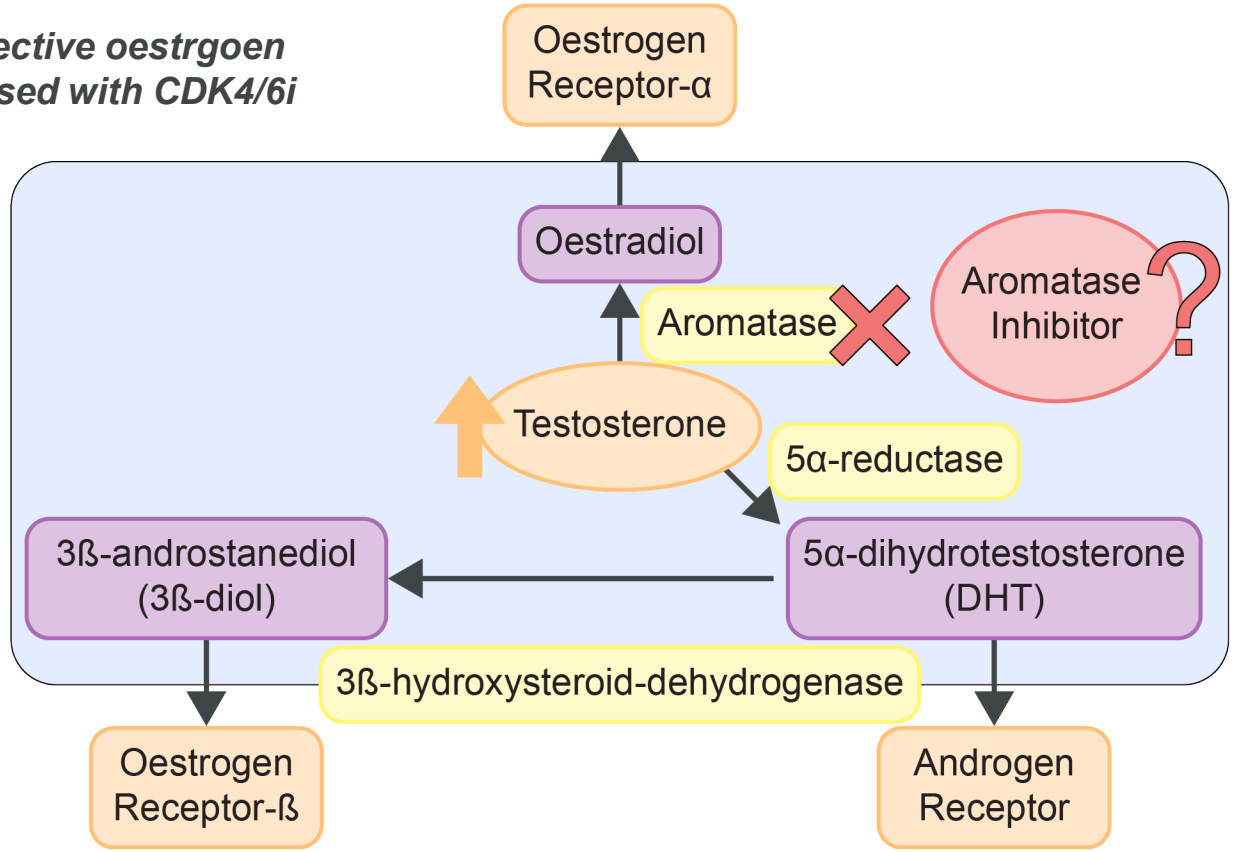
Abbreviations: ER: Estrogen receptor; CDK: Cyclin-dependent kinase; SERD: Selective estrogen receptor degrader

References: Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Metastatic Treatment

Only aromatase inhibitor or selective oestrgoen receptor degrader (SERD) licensed with CDK4/6i



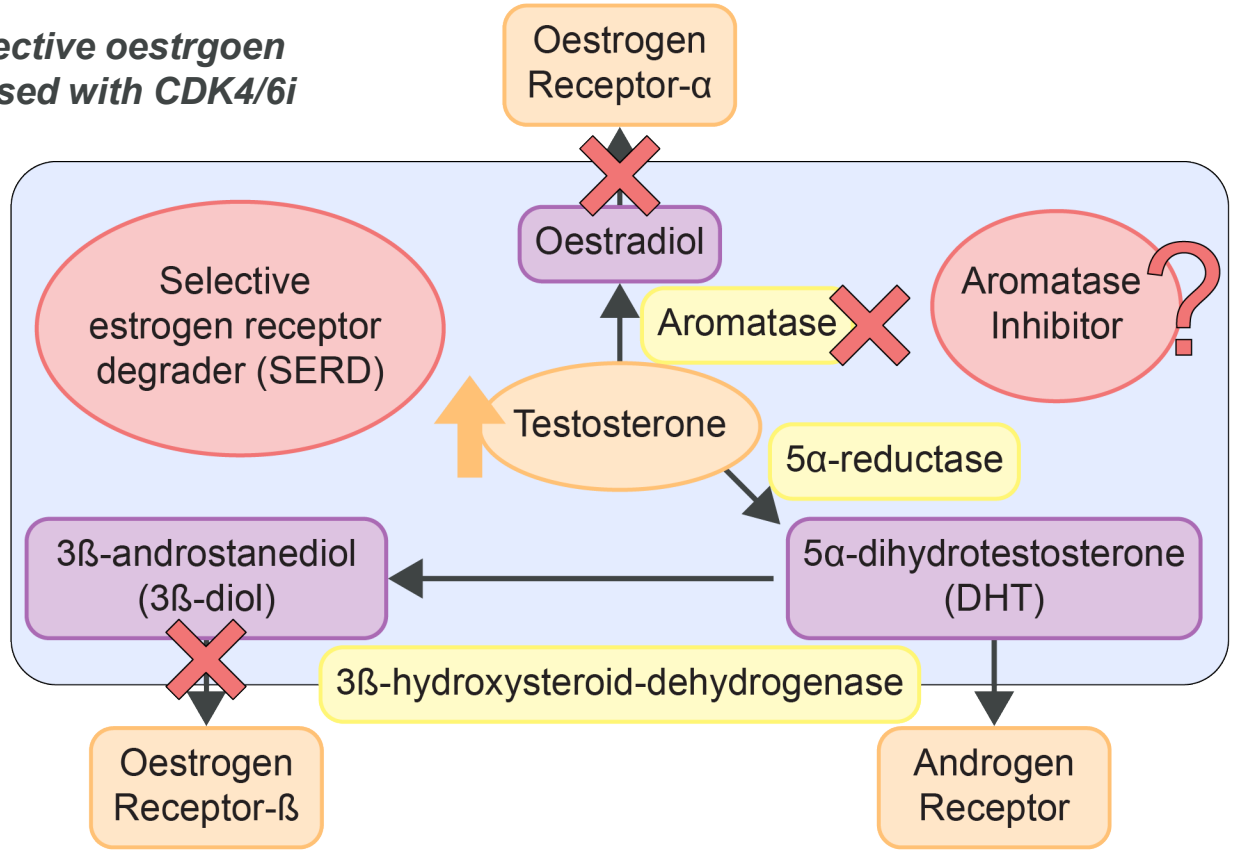
Abbreviations: ER: Estrogen receptor; CDK: Cyclin-dependent kinase; SERD: Selective estrogen receptor degrader

References: Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Oestrogen Receptor Positivity in Trans Men: Metastatic Treatment

Only aromatase inhibitor or selective oestrgoen receptor degrader (SERD) licensed with CDK4/6i



SERD

- Acts directly on ER
- Affects oestradiol assay so should not monitor level

Aromatase inhibitor

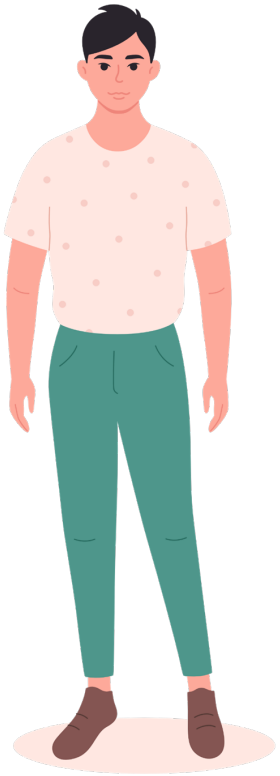
- Seems to deal with testosterone peaks on gel
- May be insufficient for testosterone peaks on higher doses of injectables

Abbreviations: ER: Estrogen receptor; CDK: Cyclin-dependent kinase; SERD: Selective estrogen receptor degrader

References: Adapted from: Patel, R et al. NPJ Breast Cancer. 2023;9(1):20

Date of Preparation: November 2024
Job Bag Number: GB-61266

Endocrine Case



Jake, 40 years old, non-binary transmasculine person

Self-referral to UCATS:

- Left T1 N1 G2 IDC, ER +ve HER2 -ve IDC
- Bilateral mastectomy for symmetrization benign
- For adjuvant chemotherapy followed by adjuvant endocrine treatment with ovarian function suppression
- Accessing injectable testosterone (given 3 weekly)

Issues raised:

- Selection of appropriate endocrine strategy given testosterone
- Appropriate hormone monitoring

UCATS outcome:

Discussed options of switch to testosterone gel and initiation of letrozole with oestradiol monitoring vs use of SERM with injectable testosterone

Abbreviations: ER: Oestrogen receptor; HER2: Human epidermal growth factor receptor 2; IDC: Invasive ductal carcinoma; SERM: Selective estrogen receptor modulator

Reference: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Reflections: Charity Service Provision

Transgender patients have heightened psychological burden regarding breast cancer diagnosis

Incidental findings in preparation for top surgery are particularly complex

Often feel their post-intervention goals are not discussed or reported

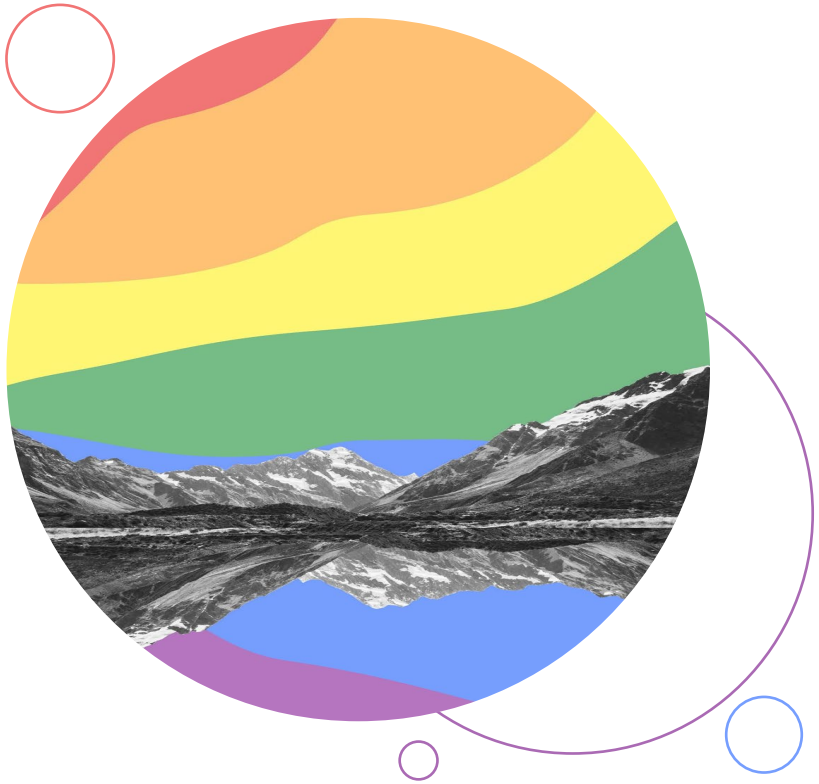
Find the feminisation of breast cancer difficult, in particular use of ‘ladies’ (this is especially noted by non-binary patients)

References: Based on speaker clinical opinion

Date of Preparation: November 2024
Job Bag Number: GB-61266

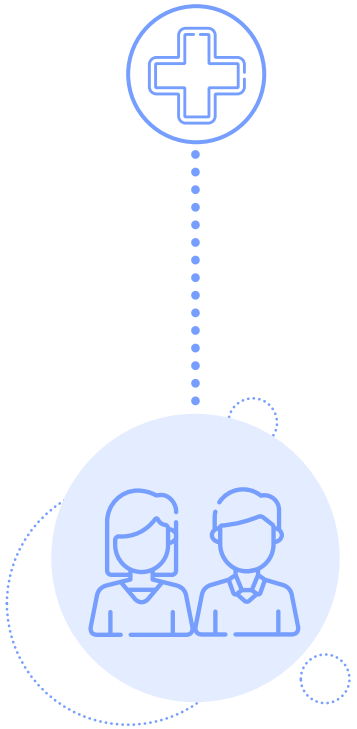
Transgender Patients in Uro-Oncology

Dr Alison Berner
Stewart O’Callaghan



Date of Preparation: November 2024
Job Bag Number: GB-61266

Prostate Cancer in Trans Women and Non-Binary People



- The prostate remains in situ after gender affirming genital surgery[1]
- The risk of prostate cancer **is ~5x lower for trans women than for cis men** when trans women are **either receiving GAHT or anti-androgen therapy** or have had **orchiectomy**.[1] This may be **even lower** for those on **GnRHa!**[2]
- There is **conflicting data** on whether these cancers are more aggressive and carry an increased risk of death [3,4]
- There are probably two phenotypes:[2]
  - **Castrate sensitive** for those who have recently received GAHT
  - **Castrate resistant** for those on GAHT for many years
- There are **different roles of ERα and ERβ in prostate cancer**, and insufficient evidence to suggest withhold oestrogen[5]

Abbreviations: ER: Estrogen receptor, GAHT: Gender affirming hormone therapy, GnRH: Gonadotropin-releasing hormone

References: 1. De Nie, I et al. J Clin Endocrinol Metab. 2020;105(9):e3293-3299; 2. Based on speaker clinical experience; 3. Jackson, S et al. J Natl Cancer Inst. 2021;113(9):1221-1227; 4. Meagher, M et al. Cancer. 2024;130(22):3862-3869; 5. Lafront, C et al. J Clin Invest. 2024;134(11):e170809

Date of Preparation: November 2024
Job Bag Number: GB-61266

Challenges in the Prostate Cancer Pathway

Diagnosis

PSA is often measured by clinics prior to hormones (incidental finding)[1]

Hormone therapy with anti-androgens and oestrogens lowers PSA levels, impacting monitoring![2]

Dysphoria from the diagnosis of a ‘male’ cancer[1]

Surgery

Increased risk of bowel perforation if prostatectomy performed after vaginoplasty[3]

Prostate removal can still impact sexual function regardless of whether the person has had genital surgery[3]

Surgery may impact future genital reconstruction - loss of landmarks for vaginoplasty[3]

Radiotherapy

External radiotherapy will likely mean future vaginoplasty is not possible[4]

There are risks of vaginal stenosis/necrosis after vaginoplasty (though dilator therapy will not be a new concept!)[4]

The prostate size may be smaller on hormones and preclude brachytherapy[4]

Abbreviations: PSA: Prostate-specific antigen

References: 1. Based on speaker clinical experience; 2. Nik-Ahd, F et al. JAMA. 2024;332(4):335-337; 3. Bertoncelli Tanaka, M et al. BJU Intl. 2022;129(1):113-122; 4. Smart, A et al. Int J Radiot Oncol Phys. 2023;117(2):301-311

Date of Preparation: November 2024
Job Bag Number: GB-61266

Clinical Case

Vanessa, 64 years old, trans woman

Self-referral to UCATS:

- Unfavourable intermediate risk prostate cancer, Gleason 7
- Robotic prostatectomy followed by radiotherapy for prostate bed recurrence
- Triptorelin commenced adjuvant

Issues raised:

- Wanting to commence oestrogen
- Desire for genital reconstruction surgery

UCATS outcome:

- Advice on safety of patches/gels instead of tablets due to VTE risk
- Agreed PSA thresholds to prompt further investigations
- Broke bad news: Vaginoplasty contraindicated after radiotherapy but vulvoplasty possible

Abbreviations: PSA: Prostate-specific antigen; VTE: Venous thromboembolism
Reference: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Venous Thromboembolism (VTE) in Trans Women

Thromboembolism incidence is greater in trans women than in cisgender men

- Usually occurs within the first year[1]
- Lower rates with transdermal preparations of oestrogen[2,3,4]
- Those **over 40** are recommended to switch to a **transdermal preparation**
- Provoked VTE should prompt therapeutic anticoagulation[4]
  - Any stopping of oestrogen should be discussed (switch to patch/gel appropriate)[4]
  - In the case of a second VTE on anticoagulation, this should be discussed with GIC haematology[4]

Abbreviations: GIC: Gender identity clinic; VTE: Venous thromboembolism

References: 1. Based on speaker clinical experience; 2. Arrington-Sanders, R et al. Endocr Pract. 2023;29(4):272-278; 3. Walker, R et al. JAMA Intern Med. 2020;180(2):190-197; 4. Berner, A et al. Best Practice & Research Clinical Endocrinology & Metabolism 2024;38(5):101909

Date of Preparation: November 2024
Job Bag Number: GB-61266

Reflections: Charity Service Provision

Transgender women without cancer have difficulty discussing prostate health [and] appear to have a more pragmatic approach

Masculinised or ‘performance’ based language can be off-putting

Frustration regarding pathways and patient coding that creates systemic barriers

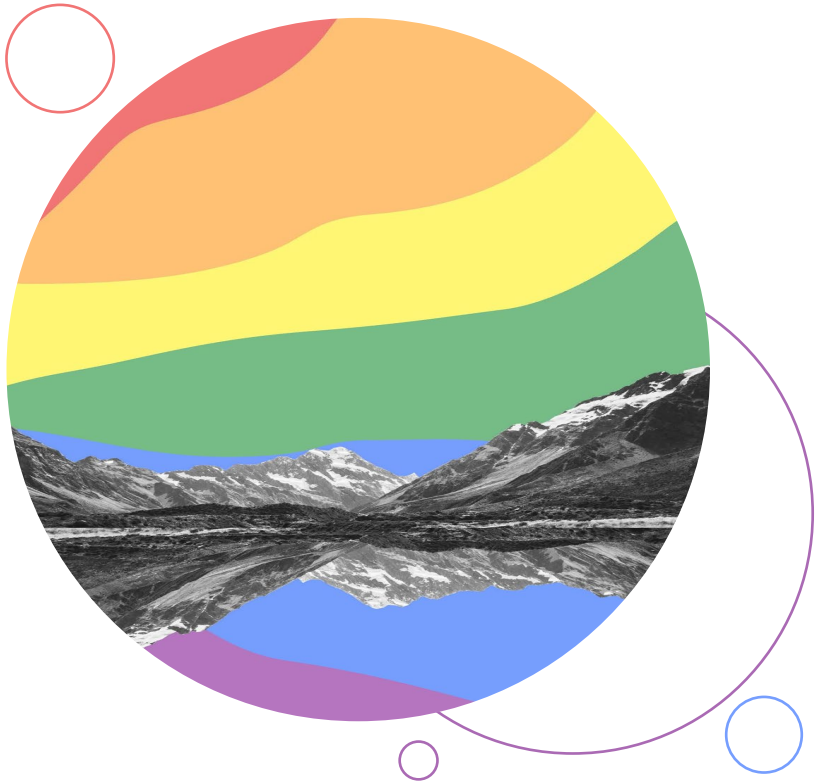
Male branded items or campaigns feel inaccessible and actively avoided

References: Based on speaker clinical opinion

Date of Preparation: November 2024
Job Bag Number: GB-61266

Transgender Patients in Gynaecological Cancers

Dr Alison Berner
Stewart O’Callaghan



Date of Preparation: November 2024
Job Bag Number: GB-61266

Incidence

No evidence of increased risk of gynaecological cancers in the literature, but:

- Many countries mandated hysterectomy for legal gender change until as recently as 2014
- Theoretical risks associated with some hormone therapies abound:
    - Androgen conversion to oestrogen driving endometrial hyperplasia and cancer[1]
    - Androgen driving carcinogenesis in ovarian cancer[1]
- Barriers exist to cervical screening for trans men & non-binary people[2]

Preventative care is key[3]

- HPV vaccination
- Encouragement of regular cervical screening
    - Need to self-present as no reminders
    - Inclusive specialist providers available
- Weight loss
- Hysterectomy is no longer encouraged for cancer prevention alone[4]
    - No evidence to recommend routine ultrasound monitoring outside of Lynch Syndrome

Abbreviations: HPV: Human papillomavirus

References: 1. Braun H, et al. Epidemiol Rev. 2017;39(1):93-107 2. Connolly, D et al. Prev Med. 2020;135:106071 3. Based on speaker clinical experience; 4. Coleman, E et al. Int J Transgend Health. 2022;23(Suppl 1):S1-S259

Date of Preparation: November 2024
Job Bag Number: GB-61266

Clinical Challenges

Diagnosis

Gynaecological screenings or symptomatic presentation may be challenging due to dysphoria[1]

Trans men on testosterone often experience pelvic pain routinely[2]

Treatment

Aromatisation of testosterone to oestrogen remains a consideration in oestrogen sensitive histology (Likely to be much higher than for cis women)[1]

Individuals should be able to access the correct HRT for them[2]

Abbreviations: HRT: Hormone replacement therapy

References: 1. Berner, A et al. Best Practice & Research Clinical Endocrinology & Metabolism 2024;38(5):101909; 2. Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Clinical Case

Kai, 44 years old, trans man

Self-referral to UCATS:

- Stage 1C Clear Cell Carcinoma of the Ovary
- Total hysterectomy and bilateral salpingo-oophorectomy
- Adjuvant carboplatin & paclitaxel
- Had initial review only at the GIC

Issues raised:

- Experiencing extreme menopausal symptoms but only offered oestrogen-based HRT which caused dysphoria
- Keen to commence testosterone therapy

UCATS outcome:

Able to expedite assessments and endocrine review to commence testosterone

Abbreviations: GIC: Gender identity clinic; HRT: Hormone replacement therapy
Reference: Based on speaker clinical experience

Date of Preparation: November 2024
Job Bag Number: GB-61266

Reflections: Charity service provision

Transmasculine patients have poor experiences of screening

Anecdotes of patients being turned away at emergency presentation when disclosure of trans status

Very little information specifically addressing their needs or concerns

These systemic and interpersonal barriers affect trust in ongoing management of care

References: Based on speaker clinical opinion

Date of Preparation: November 2024
Job Bag Number: GB-61266

Resources

Best Practice & Research Clinical Endocrinology & Metabolism 38 (2024) 101909

Contents lists available at ScienceDirect

Best Practice & Research Clinical Endocrinology & Metabolism

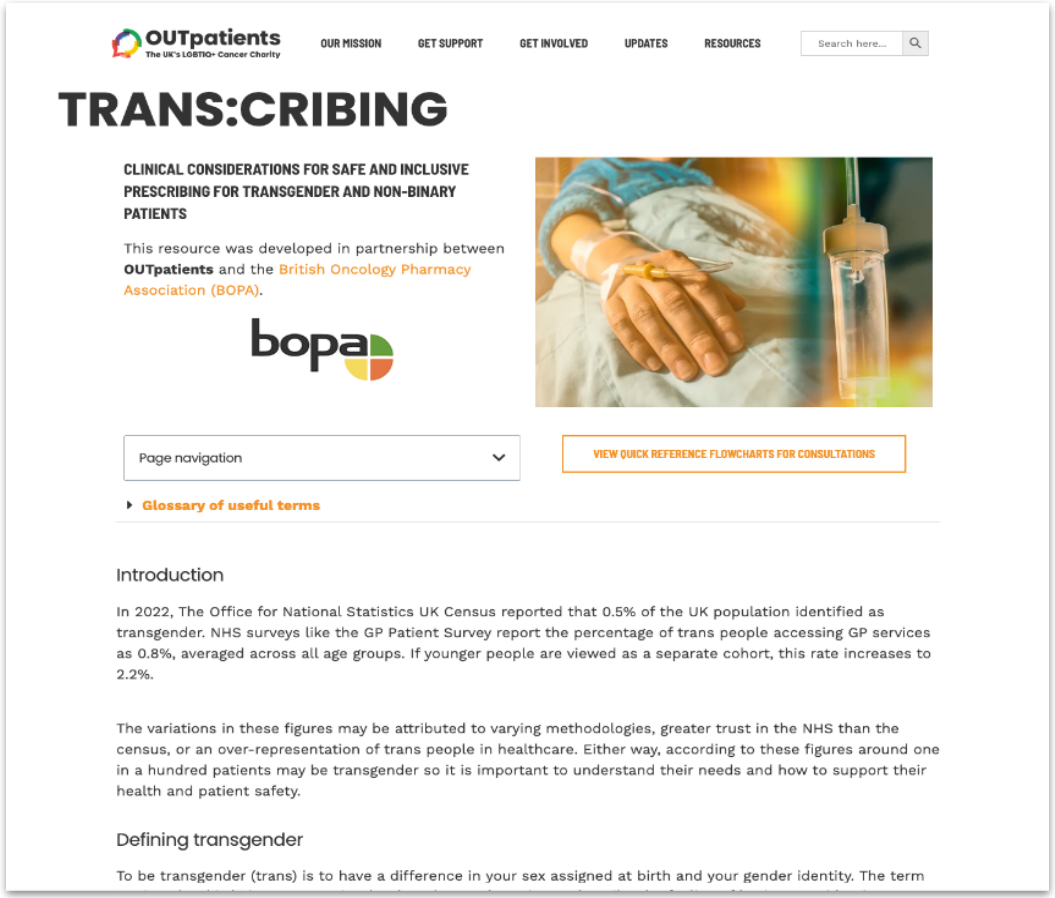
journal homepage: www.elsevier.com/locate/beem

ELSEVIER

6

The implications of hormone treatment for cancer risk, screening and treatment in transgender individuals

Alison May Berner (Academic Clinical Lecturerin Medical Oncology & Speciality Doctor in Adult Gender Identity Medicine)[a,b,*], Sarah Elizabeth Atkinson (Clinical Fellow in Medical Oncology)[c]



OUTpatients
The UK's LGBTIQ+ Cancer Charity

OUR MISSION GET SUPPORT GET INVOLVED UPDATES RESOURCES Search here...

TRANS:CRIBING

CLINICAL CONSIDERATIONS FOR SAFE AND INCLUSIVE PRESCRIBING FOR TRANSGENDER AND NON-BINARY PATIENTS

This resource was developed in partnership between **OUTpatients** and the British Oncology Pharmacy Association (BOPA).

bopa

Page navigation

VIEW QUICK REFERENCE FLOWCHARTS FOR CONSULTATIONS

Glossary of useful terms

Introduction

In 2022, The Office for National Statistics UK Census reported that 0.5% of the UK population identified as transgender. NHS surveys like the GP Patient Survey report the percentage of trans people accessing GP services as 0.8%, averaged across all age groups. If younger people are viewed as a separate cohort, this rate increases to 2.2%.

The variations in these figures may be attributed to varying methodologies, greater trust in the NHS than the census, or an over-representation of trans people in healthcare. Either way, according to these figures around one in a hundred patients may be transgender so it is important to understand their needs and how to support their health and patient safety.

Defining transgender

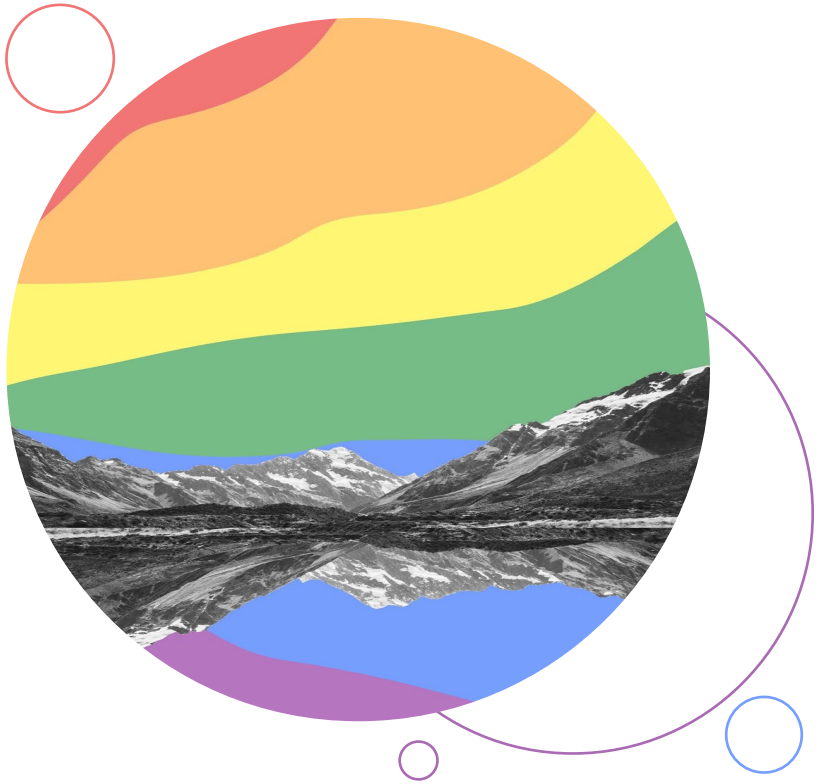
To be transgender (trans) is to have a difference in your sex assigned at birth and your gender identity. The term

References: 1. Berner, A et al. Best Practice & Research Clinical Endocrinology & Metabolism 2024;38(5):101909 2. OUTpatients and BOPA. 2024. Available at: TRANS:cribing – OUTpatients (Last accessed: October 2024)

Date of Preparation: November 2024
Job Bag Number: GB-61266

Q&A Session

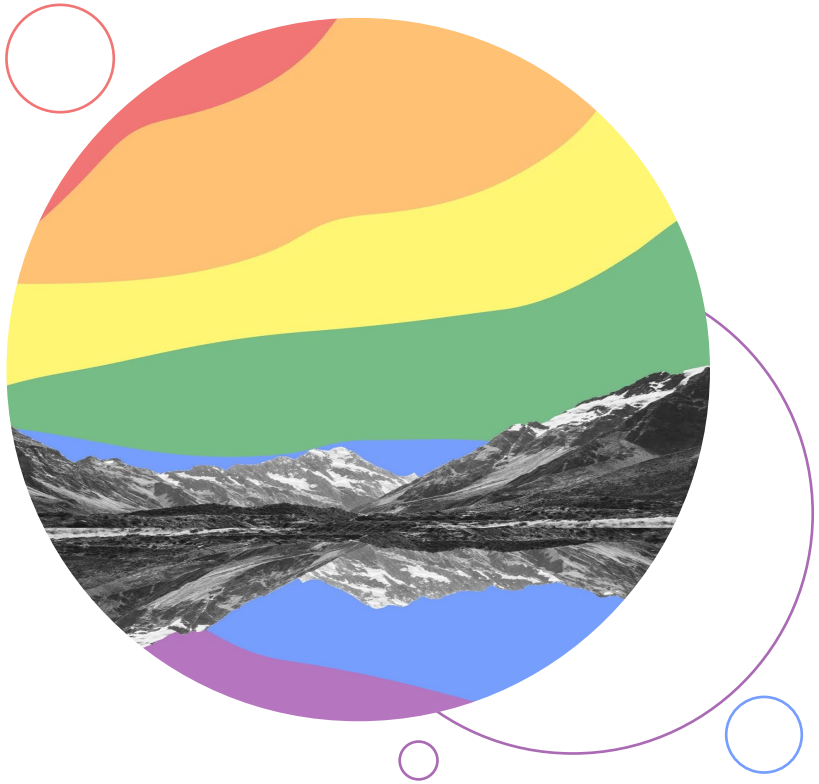
Dr Dan Saunders



Date of Preparation: November 2024
Job Bag Number: GB-61266

Closing Poll

Dr Dan Saunders



Date of Preparation: November 2024
Job Bag Number: GB-61266

Closing Poll: Question 1

I understand how receiving gender affirming hormone therapy (GAHT) may impact cancer risk and cancer care for transgender and non-binary patients.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Closing Poll: Question 2

I am aware of the drug-drug interactions between cancer therapies and GAHT.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Closing Poll: Question 3

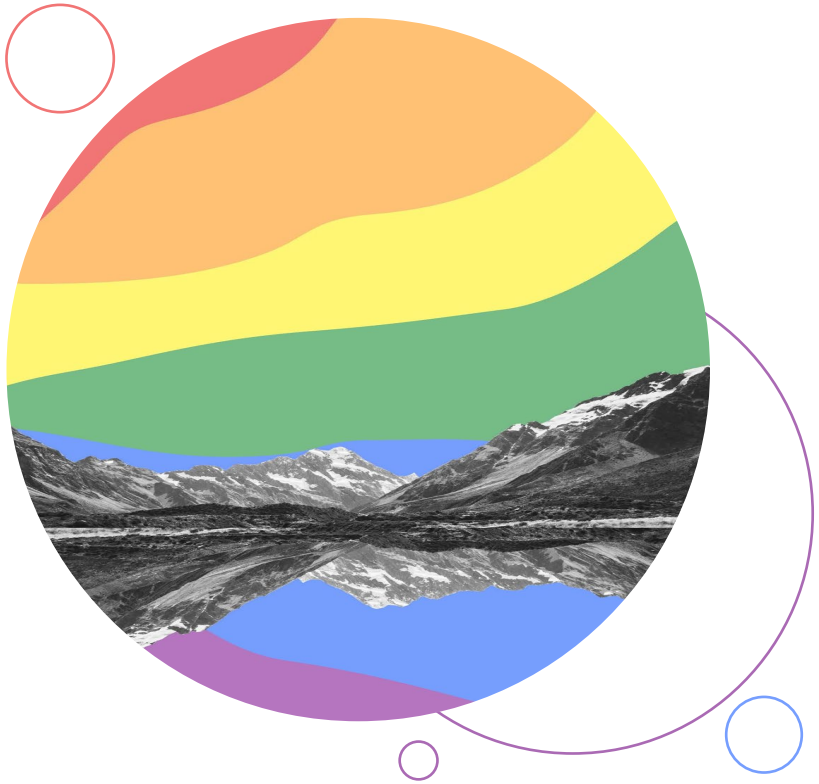
I am comfortable talking to transgender patients about the need to stop/pause GAHT to avoid drug-drug interactions with cancer therapies.

- *Strongly agree*
- *Agree*
- *Neutral*
- *Disagree*
- *Strongly disagree*

Abbreviations: GAHT: Gender affirming hormone therapy

Date of Preparation: November 2024
Job Bag Number: GB-61266

Thank You



Date of Preparation: November 2024
Job Bag Number: GB-61266