



## **ASSOCIATION OF BREAST SURGERY GUIDELINES**

### **THE CARE OF TRANS AND GENDER-DIVERSE INDIVIDUALS IN BREAST SERVICES**

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# Association of Breast Surgery Guidelines

## The Care of Trans and Gender-Diverse Individuals in Breast Services

### EXECUTIVE SUMMARY

The ABS Guidelines for the care of Trans and Gender Diverse (TGD) people in breast services provide a comprehensive approach to ensuring respectful, informed and effective care for TGD individuals in breast services. The guidelines emphasise the importance of creating a safe and affirming environment for TGD individuals, using appropriate language and pronouns and being knowledgeable about the range of healthcare options available to them.

This document highlights the challenges TGD individuals face in accessing healthcare, particularly in gendered environments like breast care, and underscores the need to build trust and dismantle barriers to high-quality care. The guidelines aim to provide inclusive and equitable healthcare by implementing evidence-based recommendations developed collaboratively by a multiprofessional group of experts and advocacy groups.

The scope of these guidelines covers all healthcare settings offering breast-related services, including symptomatic breast clinics, screening, breast cancer risk gene carriers, breast cancer care, and gender affirming chest surgeries. Key principles of care include respect and dignity, confidentiality, informed consent, creating an inclusive environment, equitable care, individualising care, data collection and feedback mechanisms.

These guidelines also address clinical assessment, diagnostic investigations, breast screening, breast cancer risk, genetic risk assessment, breast cancer care, systemic therapies, chemotherapy, immunotherapy, fertility preservation, cancer gene profiling, radiotherapy, and surveillance. Additionally, pathways for gender affirming chest surgery are outlined, including referral processes, surgical techniques, and recommendations for surgeons.

By implementing these guidelines, healthcare providers can contribute to more inclusive and equitable healthcare for TGD individuals, ensuring they receive respectful and effective care.

### GLOSSARY OF TERMS:

**Cis female:** A person whose gender identity corresponds with the female sex registered at birth.

**Cisgender:** A person whose gender identity corresponds to the sex registered at birth.

**Cis male:** A person whose gender identity corresponds with the male sex registered at birth.

**Gender affirming hormone therapy (GAHT):** Use of feminising or masculinising hormone treatment for gender affirmation.

**Gender dysphoria:** Distress associated with the discrepancy between a person's gender identity and that person's sex registered at birth.

**Gender incongruence:** When there is a discrepancy between a person's gender identity and that person's sex registered at birth.

**Non-Binary:** Individuals whose gender identity is not exclusively male or female.

**Registered female at birth (RFAB):** A term describing a person whose gender was registered as female at birth.

**Registered male at birth (RMAB):** A term describing a person whose gender was registered as male at birth.

**Top surgery:** An umbrella term commonly used to describe mastectomy and related chest reconstruction procedures performed for individuals registered female at birth. Terminology in this area is variable, and alternative terms include gender-affirming mastectomy, masculinising chest surgery, and chest contouring surgery. For consistency, and in alignment with the NHS England service specification for Gender Identity Services for Adults (Surgical Interventions)(4), the term "mastectomy and related chest reconstruction" will be used throughout this document.

**Transgender (Trans):** A person whose gender identity differs from the sex they were registered at birth.

**Trans and Gender-Diverse (TGD):** An umbrella term for those whose gender identity or expression varies from societal norms.

**Trans men and non-binary people registered female at birth (TMNB):** An umbrella term for individuals who were registered female at birth and identify as male (trans men) or as non-binary.

**Trans women and non-binary people registered male at birth (TWNB):** An umbrella term for individuals who were registered male at birth and identify as female (trans women) or as non-binary.

## Section 1: Introduction

### 1.1 Background

The UK population of TGD people is substantial and growing<sup>1</sup>. According to the 2021 census data<sup>2</sup>, 0.5% of the English and Welsh population (circa 260,000 people) over the age of 16 said their gender identity was different from the sex they were registered as at birth.

Healthcare professionals play a pivotal role in creating a safe and affirming environment for gender-diverse individuals. This includes the use of appropriate language and pronouns but importantly includes being knowledgeable about the range of healthcare options available to trans people. These behaviours have particular importance in the gendered environment of breast care, which was not developed or structured with the expectation of patients with a variety of gender identities and gender histories.

The UK Trans Lives Survey 2021<sup>3</sup> found that 57% of respondents reported avoiding going to the doctor when unwell. This report highlights that TGD people are likely to have had strongly negative experiences of healthcare in the past. It is, therefore, imperative that as healthcare providers, we build trust in the care we provide and dismantle barriers to attaining high-quality care.

### 1.2 Aims

These guidelines aim to provide a comprehensive approach to ensuring that TGD individuals receive respectful, informed, and effective care in breast services. By implementing these recommendations, healthcare providers can contribute to more inclusive and equitable healthcare for all.

These evidence-based guidelines have been created collaboratively by a multiprofessional group of experts; experts by experience, and advocacy groups. Where there are existing protocols or guidance, these have been reviewed and referenced. The recommendations for best practice are the result of discussion between the disciplines represented in the working group and are a consensus opinion.

### 1.3 Scope

The intention is, these guidelines apply to all healthcare settings offering breast-related services, including symptomatic breast clinics, screening, breast cancer risk gene carriers, breast cancer care, and gender affirming chest surgeries.

## Section 2: Care of gender-diverse individuals in symptomatic breast services

### 2.1 Introduction

TGD individuals will experience the same range of breast symptoms as other patients accessing symptomatic breast services and should be assessed in line with existing ABS best practice diagnostic guidelines for patients presenting with breast symptoms<sup>5</sup>.

The fundamental difference is in recognition of how challenging attaining high-quality healthcare can be for TGD people, particularly when attending services that are generally orientated to cisgender women.

TGD people experience poor health and cancer outcomes<sup>6,7</sup> and poor quality of care, with 40% reporting a negative healthcare experience in the previous 12 months, 21% reporting that their needs had been ignored or not taken into account, and 18% avoiding treatment for fear of a negative reaction<sup>8</sup>.

Attending the symptomatic breast clinic may generate anxiety for many patients. TGD people experience the same anxieties, but this is often compounded by additional fears of experiencing stigma and discrimination. They may experience barriers to accessing healthcare based upon their gender identity. It is, therefore, imperative that all healthcare providers work towards dismantling these barriers and advocating for equitable access to quality care for all individuals, regardless of their gender identity.

We recommend the following practices to support the delivery of care to TGD individuals attending breast services:

### 2.2 Principles of Care

#### *Respect and Dignity:*

Always use the individual's chosen name and pronouns. Avoid making assumptions about a person's gender identity based on appearance or medical history. Sharing your own pronouns at the start of a consultation informs the patient that you will respect theirs.

#### *Confidentiality:*

Protect the privacy of TGD individuals, particularly regarding their gender identity and transition-related information. Only disclose this information when necessary for care and with patient consent. Only ask questions relevant to presenting symptoms.

#### *Informed Consent:*

Ensure TGD individuals are fully informed about all aspects of care and can make decisions based on comprehensive information about risks, benefits, and alternatives.

#### *Inclusive Environment:*

Create a welcoming environment in all breast service areas. Ensure signage, forms, and communication materials are inclusive of TGD identities. The use of pronouns on badges and any patient information boards is an indication that an individual's gender will be respected.

#### *Equitable Care:*

Ensure that TGD individuals have equal access to breast services, including screening, diagnostic procedures,

and treatment. Avoid discriminatory practices that may prevent access to care.

#### *Individualising Care:*

Recognise each person's transition will be unique to them and make no assumptions regarding hormone treatments or surgeries. It is important to understand that there is a spectrum of transition, and many TGD individuals choose not to have all potential medical or surgical interventions. For example, a trans masculine presenting person may or may not be on testosterone and may or may not have had mastectomy and related chest reconstruction.

#### *Data Collection:*

We recommend collecting data on the experiences of gender-diverse individuals in symptomatic breast services to monitor outcomes and identify areas for improvement.

#### *Feedback Mechanisms:*

Establish mechanisms for gender-diverse individuals to provide feedback on the care they receive to ensure that services remain responsive to their needs. It is essential that such mechanisms ensure anonymity so that service users can report experiences without fear of jeopardizing their access to care.

#### *Education and training:*

Ensure all staff members are compliant with equality and diversity mandatory training. We recommend all staff in breast services have additional specific training on the care of TGD people. Resources are available in [Appendix 1](#).

### 2.3 Clinical assessment

#### *History:*

In addition to a standard history, record details of sex registered at birth, hormonal treatments, chest binding, and breast/chest surgeries. Note that it is rarely appropriate to ask questions of a person's gender affirming treatments other than those relevant to breast care i.e., hormonal treatments, breast/chest surgery, and oophorectomy. Questions to educate oneself about wider aspects of TGD health and terminology not directly related to the current episode of patient care are inappropriate and should be avoided. This has been experienced by many TGD patients and leads to a loss of confidence in healthcare providers<sup>3,9</sup>.

It is appropriate to respectfully determine gender identity and registered sex at birth for relatives when documenting family history, as this has clinical implications. [See Section 4](#) of this guidance for more information on family history, documentation and genetic risk.

Be sensitive in the use of language describing breast/chest tissue. Confirm with the patient what terms they are comfortable with you using when talking about their breast/chest tissue. For some TGD people, use of the word 'breast' may trigger their gender dysphoria. If it is necessary to be used, then it is important to be clear with your patient that you are doing so due to clinical need.

#### *Clinical examination:*

Exposing and having someone examine their chest may be a particularly distressing experience for a TGD person.

As for all patients accessing breast services, it is essential to support them in delivering care in a sensitive manner that maintains privacy and dignity. Ways to achieve this may include confirming who they wish to be present in the room; ensuring that they can undress and dress in a private space; giving them a gown to wear during the examination so that they are exposed as little as possible; and scheduling the consultation or examination at the very start or end of the day.

In some units, it is usual practice for a person to wear a gown when moving between a clinical examination room, waiting room, and imaging. As for all individuals, it is important to consider how a person's privacy and dignity are maintained.

**Breast/chest tissue imaging:**

This should be delivered in line with existing best practice guidelines for all symptomatic patients<sup>5</sup>. Privacy and dignity should be maintained as for a clinical examination. Breast Screening is discussed in detail in [Section 3](#) of these guidelines.

**Outcome of assessment:**

This should be delivered in line with existing best practice guidelines for all symptomatic patients<sup>5</sup>. Management of breast cancer risk gene carriers is discussed in [Section 4](#) of these guidelines, delivery of breast cancer care for TGD individuals is discussed in [Section 5](#). Pathways to attaining gender affirming breast/chest surgery are discussed in [Section 6](#).

**Psychological Support:**

It is important to consider additional mental health support that may be required for TGD individuals, recognising the potential psychological impacts of having breast symptoms and how this intersects with their gender dysphoria.

There is a higher prevalence of mental health issues amongst the TGD community, particularly anxiety and depression<sup>9,10</sup>. As with all breast cancer patients with concurrent mental health issues, the support of a Clinical Nurse Specialist and signposting to available support groups and services is invaluable. OUTpatients is an LGBTIQ+ specific cancer charity that can provide peer support to TGD patients with cancer<sup>11</sup>.

**Documentation and written communication:**

When documenting the consultation and in written communication, ensure that the person's name and pronouns are respected.

**2.4 Assessment and Diagnostic Investigations**

Patients may present via breast symptomatic services or the NHS Breast Screening Programme (NHSBSP); see [Section 3](#) of this guidance. Clinicians should be aware that trans men and non-binary people registered female at birth (TMNB) may find attendance at a breast clinic causes gender dysphoria in addition to the anxieties all patients face. Where feasible, it should be discussed in advance whether someone would find it helpful to have a more private space to wait, or an appointment at the beginning or end of the clinic. Establishing the correct name and pronouns in advance for documentation and written communication is important.

All patients should undergo triple assessment as recommended by Public Health England and NICE guidelines<sup>12,13</sup>. Patients who have glandular breast tissue over the age of 40 years should receive a mammogram before any gender affirming chest/breast surgeries. Any suspicious findings on mammogram require further assessment with an ultrasound. Palpable lesions should be assessed with ultrasound at any age. Tissue sampling of any lesions that do not meet radiological diagnostic criteria should be undertaken. Where malignancy is suspected, the ipsilateral axilla should undergo ultrasound assessment.

**2.5 Recommendations**

- TGD individuals should be assessed in line with existing best practice guidelines.
- Recognition should be given to the challenges that many TGD individuals experience in attaining healthcare.
- Chosen name, pronouns and confidentiality should always be respected.
- Services should support equity in access to care by ensuring inclusive environments and patient information.

## Section 3: Breast Screening for TGD individuals

### 3.1. Introduction

Breast screening is undertaken at a population level with the aim to diagnose and treat breast cancer at an earlier stage to improve survival<sup>14</sup>. The NHS Breast Screening Programme invites individuals who are registered with an NHS GP, are not registered as male (apart from in Scotland), and are between ages 50 and 71 to attend for screening. The TGD population may encounter challenges in accessing breast screening due to anticipated discrimination from healthcare professionals and the process of breast screening often being incongruent with their gender identity. This may lead to increased gender dysphoria and subsequently reduced adherence to screening recommendations<sup>15</sup>.

Invitations to breast screening are automatic and usually based on how gender is registered with GPs (*Table 1*). Obtaining a Gender Recognition Certificate does not affect breast screening invitations, and TGD individuals may re-register their gender on their GP record at any time. Individuals who are not registered with a GP or registered as male will not be invited for NHS breast screening (other than in Scotland<sup>\*</sup>).

Any individual who fulfils the criteria for breast screening but does not meet the criteria for automatic invitation will need to be referred by their GP. This will be to their local symptomatic or breast imaging service or via their local breast screening unit, according to local and national arrangements. While the individual is within the eligible age group and continues to have sufficient breast tissue, appointments will need to be generated at three yearly intervals according to local arrangements. Data captured at these screening appointments will not be entered into NHSBSP databases.

If individuals are not automatically invited for breast cancer screening, they will not be sent information ahead of a screening appointment to make an informed decision about attending. It is vital that healthcare providers support individuals to remain breast/chest aware and reduce the barriers to accessing relevant breast screening and services. To address this, individuals should be signposted to resources written specifically for gender-diverse audiences ([Appendix 1](#)). Resources for transgender breast/chest awareness and screening).

### 3.2 Breast Cancer Risk for TGD individuals

The risk of breast cancer in the TGD population is lower than in cisgender women, however, this is multifactorial, considering the individual's surgery and/or duration of exposure to gender affirming hormone treatment<sup>14</sup> (GAHT).

- Masculinising GAHT is reported to reduce breast cancer risk in those RFAB by up to 80% compared to cisgender women, but this risk remains elevated compared to cisgender men<sup>16</sup>.
- Feminising GAHT use for over 5 years increases breast cancer risk in those registered male at birth (RMAB) by 47-fold, however this remains significantly lower than cisgender women (70% lower risk)<sup>16</sup>.
- Undergoing mastectomy and related chest reconstruction is seen to reduce risk of breast cancer in RFAB people, however this is unable to be quantified in the literature.
- Undergoing feminising breast surgery (breast augmentation or fat transfer), does not confer an increased breast cancer risk.

**Table 1: Summary of Invitation to Routine Breast Screening for Transgender and Gender-diverse Individuals Aged 50-71 Years**

Individual Characteristics		Screening Invitation by nation			
Gender registered at birth	Current gender registration at GP	England	Northern Ireland	Scotland*	Wales
		Information	Information	Information	Information
Female	Female	Invited	Invited	Invited	Invited
	Male	Not invited	Not invited	Invited after June 2015*	Not invited
	Not male or female	Invited			
Male	Female	Invited	Invited	Invited after June 2015*	Invited
	Male	Not invited	Not invited	Not invited	Not invited
	Not male or female	Invited			

#### Eligible age range: 50-71

*\*Individuals registered as female at birth in Scotland who changed CHI number to reflect a male gender after 14 June 2015 are invited (unless they are known to have had mastectomy and related chest reconstruction or bilateral mastectomies). Scottish individuals of either gender who changed CHI number to reflect a new gender before this date do not receive invitations but can arrange an appointment with their local breast screening unit. In the rest of the UK, all individuals currently registered as female are routinely invited, including those who were registered male at birth.*

Table 2: Summary of Breast Cancer Risk and Breast Screening Recommendations for TGD Individuals		
Individual Characteristics	Cancer Risk, all ages <sup>16</sup>	Recommended Screening <sup>17,18</sup>
TGD registered female at birth	Vs. Cisgender men: 59x (19-142) Vs. Cisgender women: 0.2x (0.1-0.5)	Breast screening as per cisgender women with equivalent risk (including population, moderate, high, and very high-risk screening*)
No mastectomy and related chest reconstruction		
Using masculinising GAHT		
TGD registered female at birth	Reduced, unknown but unlikely to reach risk criteria for population screening	Routine screening mammography is not feasible. Patient-led symptomatic presentation.
Prior mastectomy and related chest reconstruction		
Using masculinising GAHT		
TGD registered male at birth	Vs. Cisgender men: 47x (27-75) Vs. Cisgender women: 0.3x (0.2-0.4)	Breast screening as per cisgender women with equivalent risk (including population, moderate, high, and very high-risk screening*)
Using feminising GAHT for over 5 years		
TGD registered male at birth	As per cisgender men	Screening not necessary. Patient-led symptomatic presentation.
Using feminising GAHT for less than 5 years or not at all		
TGD = Transgender and gender-diverse GAHT = Gender Affirming Hormone Treatment		
*Surveillance schedule for individuals at increased risk of breast cancer due to genetic or other factors (e.g. mantle radiotherapy) <sup>19</sup> .		

**Table 2** summarises breast cancer risk and breast screening recommendations for TGD individuals.

Screening for individuals who have an increased risk of breast cancer (defined as moderate, high or very high-risk) due to genetic or other factors, are considered in [Section 4](#) of these guidelines.

Mastectomy and related chest reconstruction for individuals registered as female at birth differs from risk-reducing mastectomy because breast tissue remains on the chest. Following surgery, this breast tissue and breast cancer risk is likely significantly reduced insofar as individuals are unlikely to reach risk criteria for population screening, however, evidence for exact risk change is not available at this time. Individuals are encouraged to monitor their remaining breast tissue for any signs of cancer and report them if found. Currently, no recommendations can be made on the most appropriate means of breast screening this population.

### 3.3 Recommendations

- Consent for gender affirming care should include discussion around breast screening.
- The same breast screening as cisgender women with equivalent risk (including population, moderate, high, and very high-risk screening) should be undertaken in:

- TGD people registered female at birth and have not had mastectomy and related chest reconstruction.
- TGD people registered male at birth who have had  $\geq 5$  years use of feminising GAHT.
- TGD people should be offered additional support throughout the breast screening process to minimise dysphoria. Breast imaging units should encourage staff to train in imaging TGD individuals.
- TGD populations should be signposted to inclusive breast/chest awareness resources ([Appendix 1](#)) and individuals screened outside of national breast screening programmes should be sent the relevant decision-making information.
- Invitation to the NHS breast screening programme is dependent on being registered with an NHS GP and not being registered as male ([Table 1](#)). Any individual who is registered as male at birth but fulfils the criteria for breast screening will need to be referred outside of regular national breast screening programmes by their GP, either directly to breast imaging, via the local symptomatic service, or via their local breast screening unit, according to local and national arrangements. Appointments will need to be generated at three yearly intervals according to local arrangements while the individual is within the eligible age group.

## Section 4: Care of TGD individuals with breast cancer risk genetic variants

### 4.1 Introduction

Approximately 5 to 10% of breast cancers in people registered as female at birth<sup>20</sup>, and 5 to 40% of breast cancers in people registered male at birth<sup>21,22</sup>, have a hereditary predisposition. There is evidence that TWNB individuals who are on gender affirming hormone treatment (GAHT) have a lower risk of breast cancer than cisgender women but a higher risk than cisgender men<sup>16,23</sup>. The exact risks likely depend on specific medication, dose and duration.

Pathogenic variants (also known as mutations or alterations) in high or moderate risk cancer predisposition genes cause a significant increase in a person's risk and warrant genetic risk assessment and counselling to support clinical decision-making around the management of risk. The risks for those who are not receiving GAHT or mastectomy and related chest reconstruction are likely to be equivalent to the risk of the population of the sex assigned at birth, so it is imperative that clinicians are aware of high and moderate-risk genes and the associated risks. The direct contribution of minority stress (the chronic stress experienced by individuals from stigmatised groups) to cancer risk remains the subject of ongoing research, but lifestyle risk factors for cancer, such as smoking are higher in TGD people<sup>24</sup>.

### 4.2 Risk assessment

Tools to assess an individual's risk of developing breast cancer (e.g. family history questionnaires/risk assessment tools such as CanRisk) can be used, and referrals for family history or clinical genetic assessments should be utilised as standard for patients who may have increased risk. It should be noted that there are limitations with using such tools as they do not have data for the TGD population. However, they are considered to be accurate. Individuals suspected to be at high risk should not be mandated to attend a clinical genetics appointment or undergo genetic tests to access GAHT or mastectomy and related chest reconstruction. Discussions about referrals and testing should acknowledge the uncertainty of evidence around risk, but further information could enable choices that lower the risk of cancer.

Within clinical genetics, some considerations regarding gender identity should be addressed. TGD and cisgender patients report that questions regarding gender identity, names and pronouns are appropriate to be asked in clinical forms<sup>25,26</sup>. Information regarding an individual's trans status and sex registered at birth can have significant clinical implications (with relation to anatomy present), and it is, therefore, necessary to ask this information respectfully, as a lack of disclosure could result in a lack of appropriate risk evaluation as well as a breakdown in rapport. It is advised that the inclusion of these questions should be in line with the LGBT Foundation guidance in "Good practice guide to monitoring sexual orientation and trans status 2021"<sup>17,27</sup>. Space on questionnaires should be available for the disclosure of a patient's title and pronouns. The terms registered female at birth (RFAB) or registered male at birth (RMAB) can be used for documentation in notes.

### 4.3 Genetic Pedigrees

When completing genetic pedigrees, the shape that corresponds with the patients' gender identity should be used when denoting a transgender man or transgender woman, with their sex registered at birth annotated beneath the symbol. A hexagon should currently be used for non-binary or other gender-diverse individuals with their sex registered at birth, also annotated below<sup>17</sup>. An example family history pedigree has been displayed in [Appendix 2](#). This should be explained to the patient to ensure they are aware of the clinical importance of the questions and subsequent documentation.

### 4.4 NHS Very High Risk Breast Cancer Screening Programme

The NHS coordinates a very high-risk (VHR) breast cancer screening programme for individuals with breasts who meet eligibility criteria:

- a carrier of a pathogenic variant in a high risk gene (BRCA1, BRCA2, PALB2, CDH1, STK11, PTEN, TP53 and the VHR ATM variant c.7271T>G),
- those with a risk of  $\geq 8\%$  of breast cancer between the ages of 25 to 40,
- those with a risk of  $\geq 12\%$  of breast cancer between the ages of 40 and 50,
- those at 50% risk of being a carrier of a pathogenic variant in a high risk gene up to the age of 50,
- those who have a greater than 40% risk of developing breast cancer over their lifetime due to family history or,
- those who had radiotherapy to the breast tissue at the age of 35 or under<sup>28</sup>.

The very high-risk screening programme includes TGD patients with breast tissue: those who were registered female at birth who still have significant breast tissue present (e.g. have not had mastectomy and related chest reconstruction) and those registered male at birth who have been on GAHT (such as oestrogens) which has led to breast tissue development<sup>28</sup>. A referral for those registered female at birth who have previously had mastectomy and related chest reconstruction can be made as considerations regarding remaining breast tissue or other organs present is required.

The age at which screening is commenced is determined by the specific genetic variant present and a CanRisk assessment. A referral to the VHR screening programme should not be delayed and can be made at any age<sup>9</sup>. The surveillance protocols and referral forms can be found at the Gov.UK VHR screening protocol page<sup>29</sup>. Routine breast screening for TGD in the NHS is discussed in [Section 3](#) of these guidelines

### 4.5 Breast Cancer Risk-reduction

Any person suspected to be at high risk should not be mandated to attend a clinical genetics appointment or undergo genetic tests to access GAHT or mastectomy and related chest reconstruction. However, they should be made aware and sign-posted to the available genetic

services. Those who are discovered to have a higher risk of developing breast cancer (including family risk or presence of a pathogenic variant) should be offered the same potential risk-reduction options. This should not vary according to their gender expression. Options can include (but are not limited to) risk-reducing surgery, risk-reducing endocrine treatment (RRET) or enhanced screening. Some individuals may be willing to accept a higher risk of developing cancer to avoid potential dysphoria experienced with screening or a poor cosmetic outcome they are not happy with. Any discussions should focus on supporting informed, patient-centred decision making<sup>30</sup>.

Any intervention with the aim of breast cancer risk reduction should include a shared decision-making framework. This should involve the patient, gender identity specialists, surgeons, and clinical genetics (as appropriate)<sup>17</sup>. Risk reduction for those at sufficient risk due to a pathogenic variant or a significant family history should include advice regarding modifiable risk factors that can be altered by the patient. Those on GAHT containing oestrogen should have a discussion regarding the risks of continuing as well as how cessation may affect potential dysphoria and quality of life. This should be done by an

appropriately trained specialist routinely involved in gender affirming care. It should be noted that the risk associated with oestrogen is two-fold: in increasing breast tissue volume and in providing ongoing stimulation to oestrogen response pathways. We lack data on the relative contribution of these relating to breast cancer.

Patients who are determined to be at “moderate risk” of developing breast cancer should undergo assessment and have a discussion regarding possible future implications in an appropriate clinic (e.g. family history clinics). There is a lack of high-quality evidence regarding TGD individuals at “moderate risk” of breast cancer. Recommendations (including screening) should be given to the patient according to the organs that are present in the individual without altering risk scores due to being TGD.

*Table 3* details genes that are known to increase the risk of developing breast cancer, along with the lifetime risk of developing breast cancer if present.

Risk-reducing endocrine treatment (RRET), also known as chemoprophylaxis or chemoprevention, can be considered for those with a high or moderate risk (*Table 4*) of

**Table 3: Lifetime risk of breast cancer associated with gene variants**

Gene	Lifetime risk of breast cancer RFAB to age 80	Lifetime risk of breast cancer RMAB to age 80
None	~10%	Rare
<b>High risk genes</b>		
BRCA1 <sup>34</sup>	65 - 79%	0.1 - 1.5%
BRCA2 <sup>34</sup>	61 - 77%	2 - 8%
PALB2 <sup>34</sup>	44 - 63%	0.2 - 4.9%
TP53 <sup>34</sup>	~85% by age 60	
STK11 <sup>35</sup>	32 - 54%	
PTEN <sup>36</sup>	Up to 85%	
CDH1 <sup>34</sup>	42 - 55% (lobular)	
<b>Moderate risk genes</b>		
CHEK2 <sup>34</sup>	20 - 50% - depending on factors including family history. Individual assessment required	Up to 1%
RAD51C <sup>34</sup>	21 - 46% - depending on factors including family history. Individual assessment required	
RAD51D <sup>34</sup>	20 - 44% - depending on factors including family history. Individual assessment required	
F1 <sup>35</sup>	20 - 40% - depending on factors including family history. Individual assessment required	
ATM <sup>35</sup>	20 - 40% - depending on factors including family history. Individual assessment required	

**Table 4: Risk of breast cancer definition.**

	Near population risk	Moderate risk	High risk
Lifetime risk from age of 20	<17%	≥17% but <30%	≥30%
Risk between ages 40 and 50	<3%	3 - 8%	>8%

Data from NICE Clinical Guidance CG164<sup>19</sup>

developing breast cancer<sup>19</sup>. Discussions about this should take place within specialist secondary care or genetic clinics to consider the benefits and risks. Discussions should also include how stopping GAHT or starting RRET may cause changes that affect the individual's quality of life, and this may not align with their goals for gender expression. These discussions should take place with an appropriately trained professional who has experience in gender affirming care (e.g. a gender identity clinic).

For TMNB individuals on testosterone-based GAHT, RRET, including tamoxifen may be more appropriate<sup>31</sup>. Those not on testosterone or not having had mastectomy and related chest reconstruction should be offered the same options for risk reduction as a cisgender women.

TWNB individuals on GAHT containing oestrogen should not be offered concurrent RRET due to the opposing pharmacological goals. A discussion with the individual should occur regarding decreasing cancer risk by potentially lowering the GAHT dose (or its cessation) once sufficient feminisation is achieved.

It should be noted that most patient decision aids are gendered. Decision aids are likely to contain valuable information that is relevant to all patients and therefore should be utilised, but it is prudent to make any TGD individuals aware of the gendered nature of the information until patient decision aids with inclusive and neutral language are developed.

Risk-reducing bilateral mastectomy should be discussed as a risk-reducing strategy option for those who are at high risk of developing breast cancer<sup>19</sup>. This would include those who are TGD but had not met the criteria required for mastectomy with related chest reconstruction (e.g. a diagnosis of gender incongruence has not yet been documented). Those considering risk-reducing mastectomy surgery should be seen in a specialist cancer genetic clinic for genetic counselling, as well as a psychologist, before surgical assessment. Tissue excised at the time of surgery should be assessed histologically, and the individual must be made aware of this before surgery.

Risk-reducing surgery for all individuals (cisgender women and TGD) should be performed with the same approach of removing the majority of glandular tissue from the breasts<sup>19</sup>. A discussion regarding aesthetic goals following surgery and how this may be aligned to gender expression goals is vital. Reconstruction using breast implants (if requested) is not contraindicated. It should be explained that risk-reduction takes the highest clinical priority, and this is prior to the goal of aesthetics<sup>32</sup>. When discussing surgery with those aiming for a "flat", "contoured" or "masculine" chest, it is important to advise the individual that the chest may be slimmer in contour and less projected than some having mastectomy and related chest reconstruction. If, following an appropriate healing period, the chest is slimmer in contour than desired, then fat transfer can be considered as a surgical method to improve the projection and contour. Skin and nipple sparing mastectomies with implant reconstruction have been

shown as oncologically safe, therefore nipple grafting can be assumed to be appropriate if desired by the individual<sup>33</sup>.

There is a lack of literature regarding patients having a pathogenic variant associated with high risk for breast cancer identified following mastectomy and related chest reconstruction. However, should this occur, then careful liaison between the operating team and geneticists, and a discussion with the patient to agree on a suitable plan to move forward, should take place. It may be appropriate to perform further surgery to reduce the volume of breast tissue, but this would need to be considered on a case-by-case basis. The need for surgery to reduce the volume of breast tissue present may depend on the volume left at the index surgery. A thorough discussion with the patient, along with the risks and benefits, would be vital.

#### 4.6 Recommendations:

- The use of family history questionnaires and personalised risk assessments should be utilised when assessing risk in TGD individuals.
- Gender identity, trans status, names and pronouns should be asked within forms/questionnaires in a manner that follows published best practice.
- Pedigree symbols should indicate the individual's gender identity and sex assigned at birth be documented below.
- Risk assessment tools such as CanRisk can be utilised but there are limitations of these in the TGD population.
- Individuals suspected to be at high risk should not be mandated to attend a clinical genetics appointment or undergo genetic tests to access GAHT or mastectomy and related chest reconstruction.
- Given current waiting times for both clinical genetics and gender affirming care, flexibility should be employed where possible to ensure risk information is available in a timely manner to inform, and not delay, gender affirming care.
- Referrals to VHR screening should not be delayed when an individual at potential high risk is identified.
- Any intervention with the aim of breast cancer risk reduction should include a shared decision-making framework and multi-disciplinary approach.
- RRET can be considered for those at high or moderate risk of developing breast cancer.
- Consideration of changes to gender expression and quality of life should be addressed and discussed with a trained mental health professional for the patient to be adequately prepared and to form a fully informed decision.
- Risk-reducing bilateral mastectomy can be considered for those at high risk of developing breast cancer.
- Surgery can be performed with the aim of aligning reconstruction (chest or breast) to be in keeping with the patient's gender expression goals.

## Section 5: Breast Cancer Care for TGD Individuals

### 5.1 Introduction

High quality evidence specifically regarding outcomes of TGD individuals undergoing breast cancer treatment does not yet exist and is limited to case reports and small case series<sup>37,39</sup>. Patients should be managed as per the Association of Breast Surgery (Association of Breast Surgeons) (ABS) guidelines as available on the Information Hub on the website: [www.associationofbreastsurgery.org.uk](http://www.associationofbreastsurgery.org.uk), and National Institute of Clinical Excellence (NICE) guidelines<sup>13</sup>. However additional considerations may be required for TGD individuals receiving breast cancer care.

To provide holistic care in a supportive environment, it is important to be aware of the specific factors that may affect a TGD individual's decision-making process and priorities regarding breast cancer treatment. These may lie outside the routine practice and expertise of many health care professionals working in breast cancer care. In the UK, clinicians and patients can access the Cancer and Transition Service (UCATS)<sup>40</sup>. UCATS is a national virtual clinic and MDT that advises on cancer care in TGD patients. Providing up-to-date guidance in the context of international literature and clinical experience of theirs and similar services. The MDT is composed of oncology and gender affirming healthcare professionals. UCATS can also provide the support of a dedicated clinical nurse specialist and signposting to other support services. Patients do not need to be under the care of a Gender Identity Clinic (GIC), and UCATS can expedite reviews at a GIC if appropriate.

Breast cancer care is multifaceted. Each of the areas of care are considered below.

### 5.2 Multidisciplinary team working

Multidisciplinary care for gender-diverse individuals may warrant the inclusion of a surgeon experienced in mastectomy and related chest reconstruction, healthcare professionals from an individual's gender dysphoria clinic and referral to a specialist cancer and transition service if available. It is essential for all team members to understand the impact that gender affirming care may have on breast cancer treatment, and the impact of breast cancer treatment on gender affirming care. This is of particular importance for the clinical nurse specialist, who holistically supports the individual through their pathway of care.

### 5.3 Breast Cancer Surgery

Healthcare professionals may encounter patients at various stages of their social or physical transition. Those receiving GAHT or who have undergone gender affirming procedures may place a higher value on sustaining the effects of these treatments rather than improving long-term cancer outcomes. As discussed in the introduction, gender dysphoria itself can be life threatening, with 82% of transgender individuals contemplating suicide and 40% attempting suicide in their lifetime<sup>10</sup>. This significantly improves following gender affirming surgery<sup>41</sup>. Those yet to have gender affirming surgery may have the opportunity to receive this as part of their cancer treatment, where appropriate. Therefore, all treatment decisions along an individual's breast cancer pathway should be shared with the patient and not driven by clinician assumptions or biases.

Surgery is the mainstay treatment for early breast cancer, and the priority of surgery remains oncological safety. Previous or anticipated gender affirming surgery should be considered during surgical planning. Surgery that alters the appearance of the chest may impact a person's sense of dysphoria. Involving individuals in surgical planning and providing a clear understanding of post-operative goals, appearance, and outcomes is therefore essential. Immediate or delayed breast reconstructions should be offered to TGD individuals as with cisgender women, according to patient preferences and clinical guidelines. The surgical approach to axillary surgery remains the same. It should be considered when selecting an injection site for a tracer during sentinel lymph node biopsy that breast and chest wall lymphatics may have been disrupted during previous surgery.

### 5.4 Breast Cancer Surgery post-mastectomy with chest reconstruction for individuals registered female at birth

An individual who has had mastectomy and related chest reconstruction may have residual breast tissue. This is due to the goal of surgery being the creation of a contoured chest, in keeping with a person's gender affirmation goals. Consequently, the depth of the resection plane varies for each patient. The oncological mastectomy plane is not often used. Clinical judgement with radiological imaging is required when considering breast cancer treatment, to assess the quantity of remaining breast tissue, and the implications of this on surgery and potential radiotherapy. Note that mastectomy with chest reconstruction for individuals registered female at birth is funded on the NHS. See [Section 6](#), Pathways for gender affirming chest surgery

### 5.5 Breast cancer surgery post breast augmentation surgery

Considerations for surgery should be the same as for any individual with cosmetic implants. The extent of glandular breast tissue development with GAHT is variable and often denser<sup>42</sup>. Note that breast augmentation for individuals registered male at birth is not routinely funded on the NHS. See [Section 6](#), Pathways for gender affirming chest surgery

### 5.6 Breast cancer surgery for individuals awaiting gender affirming top surgery

The NHS waiting list for mastectomy and related chest reconstruction for individuals registered female at birth is long. It is not uncommon for patients to wait several years between initial referral to a Gender Dysphoria Clinic and undergoing mastectomy with chest reconstruction. Individuals may be awaiting gender affirming surgery at the time of a breast cancer diagnosis. It is reasonable to provide gender affirming surgery at the time of breast cancer surgery, provided the individual meets WPATH (World Professional Association for Transgender Health) guidelines for gender affirming surgery<sup>43</sup>.

This decision should be made in conjunction with healthcare professionals experienced in gender affirming care. Ideally, surgery should be undertaken by surgeons experienced in this field. This is to ensure that an individual's gender expression goals are understood and that they are

fully supported in their decision making regarding surgical options. Those in the UK can contact UCATS<sup>40</sup> for support.

### 5.7 Systemic Therapies

Due to the paucity of high-quality evidence regarding optimal systemic breast cancer treatment strategies for TGD individuals, treatment decisions should be based on cancer biology and characteristics using known evidence from trials with cisgender populations. It is important that these recommendations are weighted against the benefits to a person's well-being of continuing GAHT<sup>31</sup>.

### 5.8 Endocrine Therapy

Any suggested changes to GAHT should be discussed in detail with patients, including the benefits of discontinuing or adjusting GAHT on cancer outcomes versus the expected physical changes and how this may impact quality of life.

#### *Oestrogen gender affirming hormone therapy for TWNB individuals*

In the presence of hormone-negative breast cancers, TWNB individuals using GAHT can continue oestrogen supplementation. The management of oestrogen receptor (ER) positive cancers depends on how tolerable it is to discontinue GAHT for the patient. Where acceptable to stop GAHT, patients should be managed with the same protocols as cisgender males<sup>31</sup>. In the adjuvant setting, oestrogen blockade is recommended with Tamoxifen if the patient has not had orchidectomy, as 20% of oestradiol is produced by the testes in those who were registered male at birth<sup>44</sup>. Post orchidectomy, an aromatase inhibitor (AI) is also appropriate.

TWNB individuals who do not feel the oncological benefits of discontinuing GAHT outweigh the resulting physical changes, should have GAHT reduced to the lowest possible levels. There is little benefit from Tamoxifen in this context, but AIs could be considered to lower the levels of circulating oestradiol if side effects are tolerated<sup>31</sup>.

#### *Testosterone gender affirming hormone therapy for TMNB individuals*

The androgen receptor (AR) as a potential future therapeutic target for breast cancer is under investigation and requires further study. AR blockade is not a standard treatment for cisgender men, although it may be considered a final option in the metastatic setting when all other treatments have failed. There is growing evidence to suggest that AR agonism may be beneficial in ER-positive, AR-positive cancers. This suggests it is safe to continue testosterone-based GAHT in ER-positive, AR-positive disease<sup>31,45</sup>.

Available evidence suggests that in general, TMNB individuals with ER positive cancers should be managed as per cisgender females of the same menopausal status<sup>31</sup>. If there is endogenous oestrogen production (i.e. premenopausal in the absence of oophorectomy), and ovarian function suppression would be indicated as part of standard adjuvant endocrine therapy, a Gonadotrophin-releasing hormone agonist (GnRH) should be given. Where testosterone-based GAHT is being used, switching formulation to a transdermal gel is preferred to avoid fluctuating high levels of testosterone, as there is potential for circulating testosterone to be aromatised

to oestradiol<sup>31</sup>. If GAHT is continued alongside aromatase inhibitor therapy, serum oestradiol levels should be monitored until adequate and sustained oestrogen suppression is confirmed<sup>31</sup>. Tamoxifen (in the adjuvant setting) or Fulvestrant (in the metastatic setting) may be preferred. It is important to ascertain if there is a history or desire for hysterectomy, as Tamoxifen carries an increased risk of endometrial cancer<sup>31</sup>. However, switching formulations should be weighed against the evidence of benefit compared to the standard of care with AI, where this is the case. Importantly, Exemestane and Fulvestrant can both interfere with oestradiol assays.

In ER-negative breast cancers, the role of the AR is poorly understood. There are conflicting results from studies as to the AR role in promoting or antagonising oncogenesis<sup>45</sup>. More research is required in this area. Whilst there is no clear evidence that it alters outcomes for patients, masculinising GAHT should be continued if individuals wish.

### 5.9 Chemotherapy & Immunotherapy

Where clear evidence exists for the role of chemotherapy and immunotherapy agents in the treatment of breast cancer, they should be offered as for cisgender individuals. There are a few general considerations to bear in mind during the treatment of TGD individuals, particularly those receiving GAHT.

#### *Venous thromboembolism (VTE)*

Active cancer, chemotherapy, and feminising GAHT are all risk factors for developing VTE. Transdermal oestrogen patches have been shown to have the lowest VTE rates<sup>46</sup>, and a shared decision with the individual should be made as to whether to switch GAHT formulation. Individuals with additional VTE risks should be considered for prophylactic anticoagulation.

#### *GAHT serum levels*

This may require monitoring, especially in the initial stages of starting treatments. Altered drug metabolism (especially those metabolised by cytochrome P450 enzymes) and drug interactions may change previously stable serum hormone levels, particularly of oestrogen and progestins<sup>31</sup>.

#### *Liver Function*

On commencement of GAHT, there is a rise in liver function enzymes with uncertain significance. It is rarely necessary to stop GAHT for this reason. Any rise in liver function enzymes in those well-established on GAHT should be considered to be due to systemic treatments or secondary disease<sup>31</sup>.

#### *Estimating kidney function*

Within 6 months of TGD individuals commencing GAHT, their serum creatinine levels change to match their cisgender counterparts; therefore, it is important to use the correct sex-specific constant in the Cockcroft-Gault equation used to calculate renal function<sup>31</sup>. An alternative is to undertake urinary excretion studies using a tracer such as nuclear medicine EDTA. This approach may be especially useful for drugs that need dosing based on an individual's pharmacokinetics for example drugs that require 'area under the curve' dosing.

### 5.10 Metastatic Disease

As with cisgender individuals, breast cancer in the context of metastatic disease is guided by cancer biology, location of secondary disease, and patient preference. In the case of ER-positive cancers, the first-line treatment is CDK 4/6 inhibitors with an aromatase inhibitor, which can provide a life-expectancy in the order of years<sup>47</sup>. Both should be combined with a GnRH analogue if the individual has not had an orchidectomy. This may pose a dilemma for those on oestrogen-based GAHT, and they should be supported in deciding whether the quality-of-life impact of stopping oestrogen therapy outweighs the benefit of first-line treatment. They may prefer to proceed straight to chemotherapy and continue with GAHT<sup>31</sup>.

### 5.11 Fertility Preservation

Assumptions cannot be made about any individual's life plans and future desire for biological children. A discussion regarding fertility preservation should be undertaken with any individual of childbearing age who meets the criteria for fertility preservation, as they may wish to pursue gamete storage. This is routinely discussed as part of an individual's assessment of transition needs before commencing medical therapies, and some individuals may already have gametes in storage. For those wishing to pursue gamete storage following breast cancer diagnosis on GAHT, hormone treatments will need to be discontinued to facilitate this, which may add a delay to commencing systemic therapies.

### 5.12 Cancer Gene Profiling

Cancer profiling assays commonly used in breast cancer management such as MammaPrint and Oncotype DX have been studied and validated for accuracy in almost exclusively cisgender female populations and therefore predictions of chemotherapy benefit should be used with caution unless being used for TMNB individuals who are not receiving GAHT and have not undergone mastectomy with related chest wall reconstruction.

### 5.13 Radiotherapy

Evidence for outcomes following radiotherapy for breast cancer in gender-diverse patients is limited to a handful of descriptive case reports<sup>47,48</sup>. In the absence of high-level evidence transgender patients should be managed following existing guidelines and protocols for cisgender patients<sup>12,13</sup>. The indications for post-operative radiotherapy and treatment planning are determined by surgical procedure, tumour biology, and patient characteristics. Volume definition and planning are calculated as for cisgender female individuals. Electrons may be used if the surface of the target volume is relatively flat.

### 5.14 Surveillance

As per NICE guidance, all patients who have not undergone a mastectomy should undergo annual surveillance mammography for at least 5 years or continue annually

until reaching the qualifying age to enter the NHSBSP<sup>13</sup>. Those who have had a unilateral oncological mastectomy should receive an annual mammogram of the contralateral breast. Patients who have undergone mastectomy and related chest reconstruction are not eligible to join the NHSBSP and therefore should be followed up with annual clinical review in addition to guidance on remaining chest aware and patient-initiated follow-up.

### 5.15 Recommendations:

- Treatment priorities may be to sustain gender affirming physical characteristics to avoid dysphoria and maintain quality of life, rather than best long-term cancer outcomes.
- The multidisciplinary team should be extended to include the person's gender dysphoria clinic (if under the care of one) and, where required, a surgeon experienced in gender affirming surgery.
- All individuals should be managed as per NICE and ABS guidance.
- TWNB individuals who have received less than two years of feminising GAHT should be offered genetic testing.
- TWNB individuals with glandular breast tissue should be surgically managed as cisgender women, including breast reconstruction if mastectomy is recommended.
- TMNB individuals who have not had mastectomy and related chest reconstruction should be able to receive this as part of their cancer treatment, provided they meet the WPATH Soc8 criteria for gender affirming surgery.
- In ER-negative disease GAHT may be continued.
- In ER-positive disease, if priority is given to continuation of feminising GAHT over long-term cancer outcomes, a transdermal formulation of GAHT at the lowest tolerable dose is recommended.
- TMNB individuals with ER-positive disease should be managed as cisgender women of the same menopausal status. If masculinising GAHT is continued alongside AI then serum oestradiol levels should be monitored until well established on treatment with stable levels. GAHT should be switched to a transdermal formulation where AI is used.
- Individuals commencing chemotherapy of a fertile age should have the opportunity to discuss gamete storage.
- Five years of annual mammogram surveillance is recommended for TMNB individuals who have not undergone mastectomy and related chest reconstruction and TWNB individuals with breast tissue.

## Section 6: Pathways for gender affirming chest/breast surgery (mastectomy and related chest reconstruction, or breast augmentation)

### 6.1 Introduction

Experiencing gender dysphoria can cause distress, physical impairment, anxiety at societal perception, misgendering, and victimisation, which can have a profound negative impact on quality of life<sup>49</sup>. Strong evidence demonstrates the benefits in quality of life and well-being of gender affirming surgical procedures<sup>41,50–56</sup>.

Gender affirming interventions are based on clinical experience and research; they are not considered experimental, cosmetic, or for the convenience of a patient.

They are safe and effective at reducing gender incongruence and gender dysphoria related to gender incongruence<sup>57–65</sup>.

Requirements and recommendations for gender affirming surgery are outlined in the WPATH SOC 8<sup>43</sup> (summarised in Figure 1). Employing these recommendations supports the delivery of surgery that is appropriate and medically necessary.

NHS pathways for the delivery of gender affirming surgery follow these recommendations. It is best practice for these same pathways to be mirrored in private practice.

The NHS funds gender affirming mastectomy with related chest reconstruction for individuals, over the age of 18 years, registered female at birth via specialised commissioned services only. The NHS does not routinely fund gender affirming breast augmentation/mastopexy/symmetrising surgery. Funding for TWNB individuals must be done via an individual funding request to the local integrated care board's effective use of resources team.

The percentage of individuals who regret their gender affirming surgery is very low (between 0.3 and 3.8%)<sup>55, 66–70</sup>. It is important to consider this incidence of regret in the context of an acknowledged incidence of regret that is associated with the majority of surgical interventions (range 0–47%)<sup>71</sup>.

Individuals who express regret should be supported with referral to an expert multidisciplinary team. Currently, in the UK, this expertise is based in NHS Gender Dysphoria Clinics. If it is the individual's preference to receive this care in a unit different from the one that made their initial referral for surgery, this should be supported.

### 6.2 NHS referral pathway for gender affirming chest wall surgery (mastectomy and related chest reconstruction for individuals registered female at birth)

It is recommended that the NHS pathways, which are mapped to the WPATH SoC<sup>43</sup> be mirrored in private practice:

1. Referral to a specialist Gender Dysphoria Clinic from primary, secondary, or tertiary care, or by self-referral.
2. Assessment for gender dysphoria and diagnosis by an appropriately qualified health care professional
3. Recommendation from a single appropriately qualified health care professional for mastectomy with related chest reconstruction
4. In the NHS, individuals who meet the criteria for gender dysphoria related to gender incongruence are accepted onto the NHS care pathway, and an individualised treatment plan is agreed upon. Referrals for surgery are managed by the central Gender Dysphoria National Referral Service (GDNRSS)

### 6.3 Recommended pathway for gender affirming breast augmentation/mammoplasty for individuals registered male at birth

Recommendations are mapped to the WPATH Standards of Care<sup>43</sup>:

1. Assessment for gender and diagnosis by an appropriately qualified health care professional
2. Recommendation from a single appropriately qualified health care professional for gender affirming breast surgery

#### Summary of WPATH SoC 8 criteria for gender affirming surgery

- Gender incongruence is marked and sustained.
- Individual meets diagnostic criteria for gender incongruence prior to gender affirming surgical intervention in regions where a diagnosis is necessary to access healthcare.
- Individual demonstrates capacity to consent for the specific gender affirming surgical intervention.
- Individual understands the effect of gender affirming surgical intervention on reproduction and the have explored reproductive options.
- Other possible causes of apparent gender incongruence have been identified and excluded.
- Mental health and physical conditions that could negatively impact the outcome of gender affirming surgical intervention have been assessed, with risks and benefits discussed.
- Individual is stable on gender affirming hormone therapy where this is indicated to optimise surgical outcomes; a period of hormone therapy (often around six months) may be recommended but is not required if not desired or medically contraindicated.

**Figure 1:** Criteria for gender affirming surgery. World Professional Association of Transgender Health standards of care for the health of transgender and gender-diverse people version 8<sup>43</sup>.

#### 6.4 Recommendations for surgeons delivering gender affirming chest/breast surgery

- The treating surgeon must have insight into each patient's history and the rationale for the surgery referral. Surgeons must demonstrate good communication with patients through multi-source feedback as part of their appraisal and have close working relationships with NHS England-commissioned specialist Gender Dysphoria Clinics (if delivering care within the NHS), or with the referring Gender Dysphoria Specialist (if delivering care in private practice)
- Surgeons must demonstrate evidence of continuing training and mentoring in the relevant techniques, which must be reported through appraisal.
- Surgeons must engage regularly (at least once a year) with a group of peers (national or international peers working in another organisation or surgical team) and share and review data on caseload, outcomes, and complications experienced in their practice.
- Surgeons must have access to the multidisciplinary team meetings of the referring Gender Dysphoria Clinics to discuss referrals as needed.

#### 6.6 Surgical techniques for mastectomy with related chest reconstruction surgery

- Inferior mammary fold (IMF) incision mastectomy (commonly termed 'double incision') with nipple preserved as
  - Full thickness skin graft
  - Dermal pedicle (also called buttonhole)
- IMF incision mastectomy with no nipple preservation
- Periareolar mastectomy (also termed 'concentric circumareolar') +/- Liposuction +/- Webster type extension
- Liposuction

#### 6.7 Revisional surgical techniques

- Excision of dog ears
- Liposuction
- Fat grafting
- 3D tattooing
- Nipple reconstruction
- Injection of keloid/hypertrophic scars

#### 6.8 Surgical consultation for mastectomy and related chest reconstruction, and breast augmentation/mastopexy

The operating surgeon will obtain consent for the proposed intervention at a specific pre-operative appointment to allow an informed process and give the patient adequate time to consider any relevant options and alternatives.

##### *Each individual should receive:*

- Medical history and clinical examination of chest/breast
- Assessment of risk factors associated with breast cancer
- Consideration of duration of feminising GAHT for

TWNB individuals seeking breast augmentation+/- mastopexy. It is advised that TWNB individuals are on feminising GAHT (if desired) for a minimum of 9 months before breast surgery to enable maximal development of breast tissue. However, breast tissue development continues for a minimum of three years<sup>72</sup>

- Mammography for TMNB individuals over 40 years, and for TWNB individuals over 40 years who have been on GAHT for more than two years
- Discussion of:
  - Different surgical techniques available (with referral to colleagues who provide alternative options)
  - Advantages and disadvantages of each technique
  - Limitations of a procedure to achieve "ideal" results
  - Inherent risks and possible complications of the various techniques
  - Appropriate aftercare

#### 6.9 Recommendations for surgeons/units delivering gender affirming chest/breast surgery

- Provide a timely and sustainable service for gender dysphoria that meets the population's needs and incorporates individuals' views.
- Work with specialist Gender Dysphoria Clinics to ensure timely and effective treatments, including post-surgical care needs.
- Achieve an integrated approach to care with specialist Gender Dysphoria Clinics and ensure close links with other expert centres at national and international levels.
- Ensure timely and appropriate communications with services expected to provide other parts of the individual's pathway.
- Support care of those who experience regret by referral to, and close communication with, expert multidisciplinary team (NHS Gender Dysphoria clinics in UK).
- Increase awareness of best practices in the treatment and management of gender dysphoria through active engagement with health professionals and educate healthcare professionals on the health and support needs of trans people.
- Collaborate in national and international research projects to increase the evidence base for the commissioning and delivery of specialised services for TGD individuals.
- Provide support, advice, expertise, and training for the local, regional, and national network.
- Collection of data on complications, revisions, patient satisfaction, and regret.
- Collaborate in sharing best practices, peer review, benchmarking, and research and innovation development.
- Employ consistent and equitable decision-making about the effective use of resources on the NHS pathway of care for trans people.

- Publicise local and national patient organisations, which can provide additional information and ongoing support for trans people and their families.

**Each Provider will have:**

- A nominated Senior Clinical Lead with experience and expertise in specialised gender dysphoria practice and significant management experience.
- A specialist multi-disciplinary team of professionals, including surgeons with expertise in the procedures described, consultant anaesthetists, and specialist nurses.
- A robust system of clinical governance in place.
- Sufficient administrative and managerial support that facilitates efficient and timely delivery of services.
- Information and technology systems that enable the effective submission of data, including the reporting requirements of the national Referral to Treatment waiting time standards.
- Premises that are appropriate to ensure effective delivery of the services.
- Arrangements in place to ensure that service improvement is shaped by active service user involvement.
- Systems that demonstrate how the Provider uses audit, data management and analysis, service reviews (including peer reviews), and other intelligence to evaluate effectiveness and drive ongoing service improvement.
- A mortality and morbidity meeting will be held every quarter, with minutes taken and discussed at an annual joint service review meeting with commissioners

**Infrastructure requirements**

- Consultant-led clinical advice available 24 hours a day, 7 days per week
- Consultant anaesthetists
- Specialist nurses to support patients throughout the surgical pathway, as both in-patients and out-patients, from referral to discharge.

**The service will be co-located with the following services**

- Radiology
- Infection prevention and control

**The service will have access to the following services:**

- Pain services
- Pathology service
- Physiotherapy
- Occupational Therapy
- Dietetics
- Psychological services relevant to surgery
- Arrangements in place for urgent or emergency transfers of in-patients to High Dependency Units and Intensive Care Units.
- Provision of care in a clinically appropriate area, including the option of attending a separate clinic for patients on the gender dysphoria pathway, or in a clinic separated in time from patients of a different group.

### Appendix 1. Resources for transgender breast/chest awareness and screening.

Prevent Breast Cancer: Transgender Chest Awareness

<https://preventbreastcancer.org.uk/about-breast-cancer/transgender-chest-awareness>

OUTpatients: CANCER RISK AND SCREENING - Information for people who are transgender, non-binary and gender-diverse

<https://outpatients.org.uk/bestformychest>

<https://outpatients.org.uk/tnbgd-screening>

OUTpatients: CHEST CHECK 101

<https://outpatients.org.uk/chestcheck101>

CoppaFeel: Resources for Trans and Non Binary People

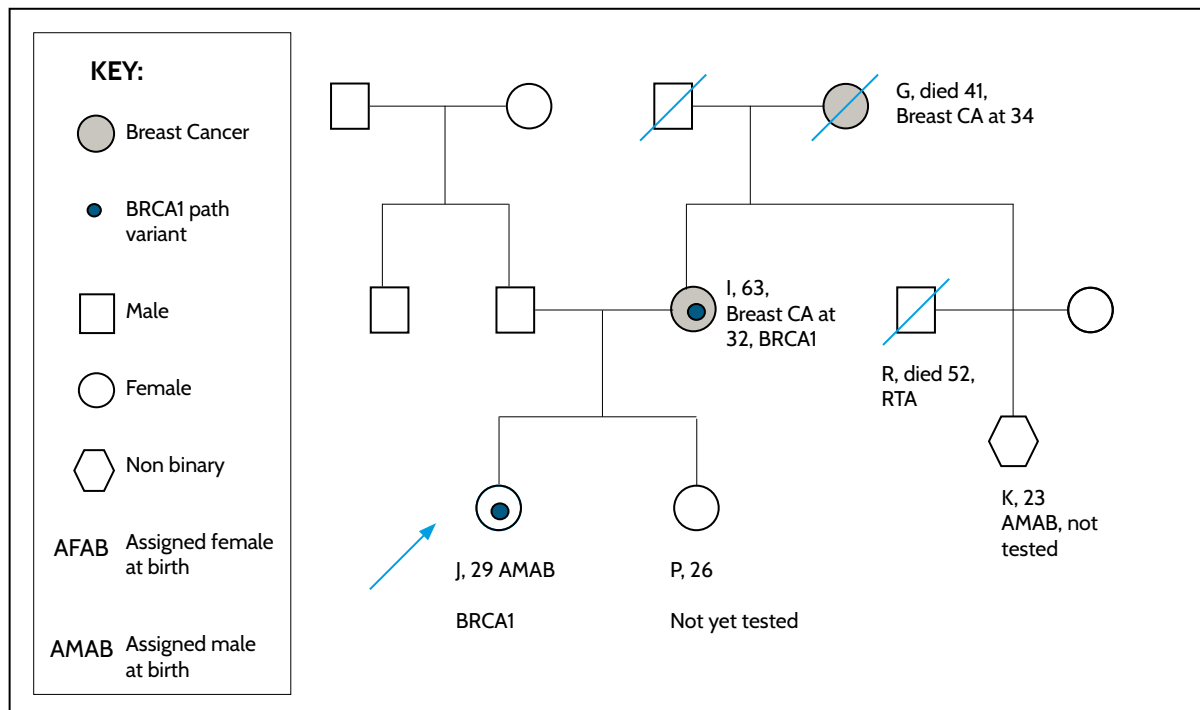
<https://www.cancercard.org.uk/support-services/coppafeel-resources-for-trans-and-non-binary-people>

<https://coppafeel.org/breast-cancer-info-and-advice/what-is-breast-cancer/resources-for-trans-and-non-binary-people/>

NHS Screening Programme: Weighing up the possible benefits and risks of breast screening

<https://www.gov.uk/government/publications/breast-screening-helping-women-decide/nhs-breast-screening-helping-you-decide#weighing-up-the-possible-benefits-and-risks-of-breast-screening>

### Appendix 2: Example of family history pedigree



## Appendix 3: Quick Reference Summary

### Core principles of care

- Trans and gender diverse (TGD) people should receive respectful, inclusive and equitable care within breast services. [#PrinciplesofCare](#)
- Clinicians should not make assumptions about gender identity, anatomy, hormone use, or surgical history based on appearance or documentation. [#PrinciplesofCare](#)
- A person's trans status is confidential medical information and should only be discussed or recorded where clinically relevant. [#PrinciplesofCare](#)
- Steps should be taken to minimise distress and dysphoria during assessment and imaging, including attention to privacy, dignity, and communication. [#ClinicalAssessment](#)

### Communication, language and pronouns

- Confirm and document the patient's preferred name and pronouns (e.g., "What name and pronouns would you like us to use?"). [#ClinicalAssessment](#)
- Use the patient's preferred terminology for anatomy (e.g., "chest" or "breast"), where possible. [#ClinicalAssessment](#)

### Symptomatic breast assessment

- Symptomatic assessment should follow usual principles (history, examination and imaging as indicated), while ensuring communication and environment remain inclusive and respectful. [#SymptomaticServices](#)
- Clinically relevant history may include [#ClinicalAssessment](#):
  - GAHT type and duration
  - Chest binding practices (if relevant to symptoms)
  - Previous breast/chest surgery (including mastectomy and related chest reconstruction)
  - Other relevant factors for breast cancer risk assessment

### Breast cancer risk

Relative risk summary [#BreastCancerRisk](#)

Breast cancer risk in TGD populations varies according to hormone exposure and extent of remaining breast/chest tissue.

#### Masculinising gender affirming hormone treatment (GAHT) in trans male and non-binary (TMNB) individuals registered female at birth, no mastectomy and related chest reconstruction ("top surgery"):

- Compared with cisgender men: **59x increased risk**
- Compared with cisgender women: **0.2x risk** (approximately 80% reduction)

#### Feminising GAHT ≥5 years in trans women and non-binary (TWNB) individuals registered male at birth:

- Compared with cisgender men: **47x increased risk**
- Compared with cisgender women: **0.3x risk** (approximately 70% lower)

#### After mastectomy and related chest reconstruction ("top surgery") in TMNB (RFAB)

- Risk is reduced but not quantifiable from current evidence.
- Routine mammographic screening is generally not feasible.
- Symptom-led presentation and assessment remains appropriate.

#### Screening: key considerations (NHS context) [#ScreeningRecommendations](#)

- Invitation to the NHS Breast Screening Programme is typically based on age and GP registration details, including the recorded sex marker.
- Individuals who are not automatically invited may require referral via GP/local arrangements to access screening.
- Where screening is arranged outside standard automated invitation systems, ongoing recall may not occur without specific local processes.

#### Screening recommendations (summary) [#ScreeningRecommendations](#)

Screening should be offered as for cisgender women with equivalent risk where applicable, including:

- TMNB (RFAB) who have not undergone mastectomy and related chest reconstruction
- TWNB (RMAB) who have received ≥5 years feminising GAHT
- Screening is generally not required (symptom-led assessment applies) for:
  - TWNB (RMAB) with <5 years feminising GAHT or none, where risk approximates that of cisgender men
  - TMNB post mastectomy and related chest reconstruction, where routine mammographic screening is not typically feasible

**Genetics and familial risk assessment** [#BreastCancerGeneticRisk](#)

- Where indicated, TGD patients should have access to standard familial risk assessment and genetic referral pathways, equivalent to cisgender patients.
- Genetic risk should be assessed on the basis of:
  - personal history (e.g., breast cancer characteristics)
  - family history (including early onset or multiple affected relatives)
  - relevant tumour markers / pathology findings where applicable

**Key point:** Use genetics pathways pragmatically and equitably, and ensure administrative systems do not inadvertently create barriers to appropriate referral or follow-up.

**Breast cancer care (diagnosis and treatment)** [#BreastCancerCare](#)

- TGD patients diagnosed with breast cancer should receive standard evidence-based breast cancer management, consistent with tumour biology, stage, comorbidity, and patient choice.
- Care must remain person-centred, avoiding assumptions about gender identity, body priorities, or treatment goals.
- MDT discussions should consider relevant contextual issues, including:
  - current/previous GAHT
  - prior chest/breast surgery
  - reconstruction considerations (including patient priorities for chest appearance)

**Practical clinical note:** Communication around examinations, imaging, mastectomy/reconstruction, and radiotherapy planning should explicitly address dignity, consent, and dysphoria-sensitive care.

**Pathways to gender-affirming chest surgery** [#PathwaysGenderSurgery](#)

Pathways to gender affirming chest surgery should involve specialist gender services and surgical teams with appropriate knowledge and expertise in the care of TGD individuals. Pathways in the NHS should be mirrored in private practice.

**Mastectomy and related chest reconstruction (TMNB / RFAB)**

- This NHS-funded surgery is accessed via specialist gender services, following assessment in line with WPATH SOC8.
- In England, Wales and Scotland, NHS referrals proceed via the Gender Dysphoria National Referral Service (GDNRSS).

Breast services may be involved for:

- assessment of symptoms while awaiting surgery
- pre-operative imaging where indicated

**Feminising breast surgery (TWNB / RMAB)**

- Breast augmentation is not routinely NHS funded and may require local funding processes.
- Breast teams may support assessment of symptoms, counselling on screening, and imaging where clinically indicated.
- Pre-operative imaging
- Consider mammography prior to surgery for:
  - TMNB >40 years
  - TWNB >40 years with >2 years feminising GAHT

**Cancer risk and follow-up after mastectomy and related chest reconstruction**

- Mastectomy and related chest reconstruction reduces but does not eliminate breast cancer risk (residual tissue remains).
- Routine screening mammography is generally not feasible post-operatively; advise symptom-led presentation and chest awareness.

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