



Swiss Standards of Care of Transgender / Gender Diverse Adults

Introduction

These recommendations were developed by the working group “transgender” of the Swiss Society of Endocrinology and Diabetology (SSED/SGED) in collaboration with an interdisciplinary group of experts in order to guide professionals in the care of transgender/gender diverse individuals in Switzerland. The goal is to provide standardized, up-to-date and patient-oriented recommendations, based on a scientific background and on international standards, but also on our specific national circumstances. Not only medical, but also psychological, social and legal aspects are covered in different sections.

On behalf of the editorial board, we thank all authors (in alphabetical order) for their valuable contributions and the important professional exchange during the development of these recommendations. We were also able to count on the continued support of the SSED, in particular from Mrs. Ulrike Iten, which we are very grateful for. The working group welcomes feedback, questions and suggestions; these recommendations are meant to be adapted on a regular basis and in accordance with ongoing scientific progress.

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1. Terms and epidemiology

First Author: Hüseyin Cihan

Key Points

- With the ICD-11 reclassification, gender incongruence was moved from the mental health disorder category to the category with conditions related to sexual health, which better reflects contemporary understanding of gender identity.
- It is essential to use language that is respectful, non-pathologizing, consistent with human rights standards and affirming.

Transgender and gender diverse (TGD) individuals are those whose gender identity does not align with sex assigned to at birth. Transfeminine individuals represent individuals who were assigned male at birth, while transmasculine individuals represent individuals assigned female at birth^{1,2}. TGD individuals may seek gender affirming therapies, including gender affirming hormone therapies and surgeries^{1,3,4,5}. Table 1 shows commonly used terms in TGD health. In TGD care, two diagnostic terms are frequently used in assessment: gender incongruence and gender dysphoria. Gender incongruence refers to individuals whose gender identity does not align with the sex assigned at birth in the ICD-11 classification^{6,7}. Another diagnostic term in TGD care is gender dysphoria, as defined by the DSM-5, is distress or discomfort experienced when a person's gender identity differs from their sex assigned at birth⁸. While not all TGD individuals experience gender dysphoria, the term “gender incongruence” covers a broader representation of TGD individuals and avoids the implication that distress is a prerequisite for medical care.

Epidemiologic studies reveal varying rates of TGD individuals. Health systems-based studies estimate this rate at 0.02-0.1%, while survey-based studies give rates of 0.3-4.5% for all transgender and gender diverse individuals¹. In the 2023 Global Advisor Survey conducted by IPSOS in 30 countries, the average proportion of the TGD community is 3%. Notably,

Switzerland had the highest self-reported proportion, with 6% of the population identifying as transgender, non-binary, gender non-conforming, gender-fluid or other gender identities⁹.

Table 1

Glossary of terms	
Sex	Term relating to biological characteristics (i.e., chromosomes, genitals, hormones)
Gender	Term relating to personal, social and cultural concepts
Sex assigned at birth	Categorization at birth, mostly based on phenotypic presentation (i.e., genitals)
Transgender	Gender identity does not correspond to gender assigned at birth
Cisgender	Gender identity corresponds to gender assigned at birth
Non-binary	Gender identity outside binary category “female” and “male”
Gender diverse	Gender identity not constrained by binary concept of gender
Gender fluid	Gender identity that is not fixed to a specific gender and may change over time
Gender incongruence	Marked and persistent incongruence between a person's experienced gender and that assigned at birth
Gender dysphoria	Distress caused by gender incongruence
Transfeminine	Feminine identity of someone who was assigned male at birth. This includes trans women and other gender identities
Transmasculine	Masculine identity of someone who was assigned female at birth. This includes trans men and other gender identities

2. Diagnostic, mental health and transition support

First Author: David Garcia Nuñez

Key Points

- In TGD individuals the discrepancy between physical sex, psychological and social gender characteristics often leads to a high level of suffering and forces those affected to undergo social and medical transition measures.
- It is recommended that medical transitions be accompanied, at least at the beginning, by health care professionals with sufficient expertise in the treatment of gender incongruence.

In TGD, the discrepancy between physical sex, psychological and social gender characteristics often leads to a high level of suffering and forces those affected to undergo social and medical transition measures. Medical transition includes interventions that are primarily aimed at changing appearance, especially in the area of primary and secondary sexual characteristics^{1,10,11}.

According to the WPATH SOC 8, healthcare professionals experienced in transgender medicine can assess adult TGD individuals for GAHT, provided they are able to: identify co-existing mental health or other psychosocial concerns and distinguish these from gender dysphoria, assess capacity to consent for treatment, assess clinical aspects of gender dysphoria and undergo continuing education in this field. A diagnosis of GI is based on clinical history, as there are no psychometric, laboratory or imaging techniques that can be used for this purpose. The indication for GAHT can be made when there is a marked and sustained experience of GI. At the same time, existing medical or psychosocial conditions that could negatively affect the outcome of GAHT as well as the individuals' expectations of GAHT have to be identified and addressed. The SGED working group recommends offering an assessment by a mental health professional experienced in GI to all individuals prior to GAHT. Such an evaluation can support

the exploration of personal resources, the identification of mental health comorbidities, and, if desired, the initiation of longer-term support. This is particularly recommended in cases of diagnostic uncertainty, where the clinical assessment indicates that gender incongruence may be primarily caused by underlying psychopathological factors rather than a transgender identity per se.

Once the diagnosis has been established, the individual medical transition plan is determined as part of a "shared decision making" process^{13,14}. The transition process changes the core physical, psychological and social factors of TGD individuals, therefore, transition support by a health care professional experienced in GI should be offered. There are now innovative, e.g. advanced practice nurse-supported approaches¹⁵, that can take on this task, including communication between the various specialist disciplines. This creates the opportunity to adapt the individual transition plan without pressure from the medical system¹⁶.

3. Legal aspects

First Author: Lea Slahor

Key Points

- Swiss law allows change of gender and first name through self-declaration in a binary frame.
- Swiss law protects gender diverse individuals against discrimination as employees but not explicitly in other areas of life.

Legal aspects in Switzerland

In Switzerland, individuals above the age of 16 years are allowed to change their gender and first name since January 2022 through a self-declaration at a civil registry office without requiring any medical or psychological assessments¹⁷. However, the Swiss civil register adheres to a

binary concept, allowing only male or female gender entries. It should be especially noted, that with a male gender entry until the age of 24 years, military service is compulsory for Swiss citizens¹⁸. The military medical service will assess on an individual basis whether military service is required, considering various criteria (e.g. stage of transition, existing co-morbidities).

Following an informed consent model, TGD individuals can begin gender affirming treatments without a mandatory psychological evaluation (see Section 2). The costs of medical and surgical gender assignment procedures are covered by Swiss health insurances, regardless of an official gender change in the civil register.

TGD individuals are protected by the Swiss gender equality act against discrimination based on gender identity as employees in a professional setting¹⁹. While acceptance of expressed gender identity is highly recommended in educational and workplace settings - such as using correct names and pronouns and providing access to suitable facilities - there is currently no explicit legal protection or specific anti-discrimination law for (the group of) TGD individuals as of 2025.

4. Indications, aims and general principles of gender-affirming hormone therapy

First Author: Michelle Egloff

Key points

- The indication for GAHT is a diagnosis of „gender incongruence“.
- Before starting GAHT, a thorough assessment of mental and physical health and expectations regarding therapy is carried out.
- Before starting GAHT, fertility and fertility preservation options should be discussed.

Before starting GAHT a thorough assessment should be performed including consistency of gender incongruence, assessment of mental and physical health problems, and of the psychosocial setting (Table 2). Minority stressors, i.e. external and internal pressures faced by



members of minority groups, and the lack of resources can affect the mental health of people with gender incongruence and therefore the success of GAHT.

In addition, health care providers should discuss fertility goals and fertility preservation procedures prior to initiating GAHT (see Section 8).

The endocrinologist explores the patient's expectations about physical changes and the time-line and explains limitations and possible side effects of GAHT. In doing so, treating clinicians should engage in shared decision-making with patients, respecting their autonomy and preferences in the treatment process.

Table 2 Assessments at baseline and during follow-up	
Baseline	Discuss expectations for GAHT
	Explain onset and time course of physical changes including irreversible effects, as well as side-effects
	Counselling for impact on fertility and fertility preservation options
	Assess psychosocial setting and resources
	Check relative contraindication (i.e. thromboembolic disease, hormone-sensitive cancer, and for transmasculine individuals, erythrocytosis and obstructive sleep apnea syndrome)
	Clinical evaluation, i.e. measure body weight, body mass index, blood pressure. Perform smoking cessation counselling
Every 3 months for the 1st year, then every 6-12 months	Clinical evaluation to monitor signs of feminization/virilization and undesired/adverse effects
	Monitor cardiovascular risk factors such as body weight, body mass index, blood pressure. Pursue smoking cessation counselling
	Laboratory evaluation: sex hormones, liver and renal parameters, lipids, glucose/HbA1c, blood count

Adapted from Hembree WC et al. 2017 Endocrine Society Guidelines and WPATH Guidelines^{1,22}

The primary goal of GAHT is the reduction of gender dysphoria. This is accomplished through physical and mental changes in line with the identified gender. This typically includes

suppressing endogenous hormone action and introduction of GAHT according to the identified gender. The satisfaction of the patient with these physical and mental changes must be assessed by the endocrinologist at each visit.

5. Feminizing therapy

First Author: Verdiana Caironi

Key Points

- Feminizing therapy typically consists of 17-beta-estradiol orally or transdermally in combination with one of the available antiandrogens cyproterone acetate, spironolactone or a GnRH agonist.
- Estradiol therapy (oral route more than transdermal route) carries the risk of thromboembolic disease. In individuals of risk or above the age of 45 years, oral treatment regimens should be switched to estradiol patch or gel.

Feminizing hormone therapy (FHT) typically consists of an estrogen and an anti-androgen. Before starting GAHT, it is important to address the topic of fertility (see Section 8) and potential relative contraindications, such as coagulopathy/previous thromboembolic disease and hormone-sensitive cancer.

Estrogens: Current guidelines¹ recommend 17-beta-estradiol^{20,23}. Ethinyl estradiol and combined equine estrogens (CEEs) are not recommended because they increase the risk of venous thromboembolism (VTE)^{22,24,25,28,32,33}. For route of administration and main hormone characteristics see Table 3. Transdermal administration bypasses the hepatic first-pass effect, which reduces the risk of thrombosis. Transdermal application is therefore recommended in individuals of >45 years of age²³. Success can also be achieved with parenteral administration of

estradiol esters, but the corresponding preparations and experience are not available in Switzerland²⁴.

Antiandrogen therapy: The aim is to suppress testosterone action, which allows administering a lower dose of estrogen³⁰. It can be reduced/stopped if testosterone action is sufficiently blocked with estrogen therapy alone, or if an orchidectomy has been performed, or if a certain degree of testosterone action is desired (i.e. non-binary individuals).

The most common used anti-androgens in Switzerland are cyproterone acetate (CPA, commercial name Androcur®), spironolactone (SPL, commercial name Aldactone®), and gonadotropin-releasing hormone (GnRH) analogues such as leuprorelin (commercial name Lucrin®). These drugs have been used since the 1980s, but there are no or only short-term prospective head-to-head comparisons. Current guidelines do not give a clear preference for any of the three options. CPA is a progestin (structural similarity to progesterone) which acts primarily by inhibiting the hypothalamic-pituitary-gonadal axis, while SPL acts primarily as androgen receptor blocker. SPL also inhibits partially the synthesis of testosterone. CPA seems to be more effective than SPL in lowering total testosterone, but CPA leads to an elevation of prolactin³⁵ (significance unknown), and it has been linked to a higher risk of meningiomas leading to a warning from the European Medicines Agency (EMA). The meningioma risk is associated with higher doses (>50 mg daily), but also with high cumulative doses such as 10 to 12 g³⁵. Typically, 10 mg daily or less^{36,38} (1/4 tablet of 50 mg per day or every other day) are sufficient to reduce the testosterone to cis-feminine levels³²; hence, it would take about three years of 10 mg CPA daily to achieve a cumulative administered dose of about 10 g. Overall, the absolute risk of meningioma remains low. CPA may also cause abnormal liver values and has been linked to weight gain and hypertensive blood pressure values, however more data is needed.

As a mineralocorticoid antagonist, SPL may increase potassium levels, leading to diuresis and hypotension. However, in a young and healthy population, the risk of hyperkalemia is low, and we recommend a single potassium measurement after four weeks³⁶. In patients with other risk factors (renal insufficiency and/or potassium-sparing medication), more frequent monitoring is recommended. A third option are GnRH agonists that directly inhibit gonadotropins and are potent antiandrogens (with unknown long-term effect on bone health). This class of agents requires subcutaneous/intramuscular injection and is associated with higher costs.

For route of administration and main drug characteristics see Table 4. Peripheral androgen receptor antagonists (bicalutamide, flutamide), and also 5 alpha reductase inhibitors or progestins are not recommended^{1,22,27}.

Onset and time course of physical changes induced by feminizing GAHT are shown in Table 5.

Follow up and prevention of adverse effects

Therapy monitoring involves clinical, and laboratory control every 3 months in the first year and subsequently every 6-12 months. CV risk factors (body weight, hypertension, diabetes, hypertension, dyslipidemia, cigarette smoking) are assessed and smoking cessation counselling is offered if applicable. Laboratory analyses include sex hormones, renal and liver parameters, blood count, HbA1c and lipid profile.

For binary transfeminine individuals the following values are used as reference points:

- Total Testosterone <2 nmol/L resp. female reference range (less reliable with spironolactone)
- Estradiol: 370-730 pmol/l = 100-200 pg/ml (upper limit should not be exceeded)^{1, 22, 23, 26,}

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In non-binary individuals, the upper limit of estradiol of 730 pmol/l should not be exceeded, but higher testosterone levels above 2 nmol/l can be accepted depending on the individual's well-

being. In spironolactone-treated individuals, testosterone levels are not reliable markers of testosterone action and therapy should be adjusted according to clinical signs and symptoms.

Table 3 Estrogen therapy

<u>Transdermal</u>		
Active principle	Formulation	Main characteristics
Estradiol (Estradot®)	Transdermal patch 50-300 µg/24 h every 72 h	Slow release Estradiol-values stable Avoid first pass effect
Estradiol hemihydricum (Oestrogel®)	Transdermal gel 0.75-4 mg/day (= 1-5 pushes/day)	↓ Thrombotic risk (compared to peroral estradiol therapy) Half-life 24 hours
<u>Oral formulation</u>		
Active principle	Formulation	Main characteristics
Estradiol valerate (Progynova®, Estrofem®)	Estradiol tablets 2-6 mg/day	Accumulation of estrone as first passage effect Fluctuation of plasma levels Half-life 12 hours

<u>Parenteral Formulation</u>	
Estradiol valerate or cypionate	Not available in Switzerland

Table 4 Anti-androgens

Oral formulation			
Name	Dose	Main characteristics	Side effects
Cyproterone acetate (Androcur®)	Approximately 10 mg/day (no benefit with higher doses); 1/4 of 50 mg every day or every other day if 10 mg tablets not available.	Hepatic metabolism Half-life 48-72 hours	Negative effects on lipid profile, weight Increase in prolactin values Increased incidence of meningiomas
Spironolactone (Aldactone®)	Tablets 100-300 mg/day	Hepatic metabolism Half-life 16-22 hours	Hyperkalemia (greater in patients >45 years old/with specific risk factors ³⁴ Dehydration Hyponatremia

Parenteral formulation			
GnRH agonist (triptorelin or leuprolide = Decapeptyl®, Lucrin®)	Injection 3.75 mg/monthly s.c. injection 11.25 mg/every 3 months s.c. injection	Hepatic metabolism Half-life 3 hours	

Table 5 Feminizing GAHT effects

Effect	Onset	Maximum
Breast growth	3-6 months	2-3 years
Redistribution of body fat	3-6 months	2-5 years
Decreased spontaneous erections	1-3 months	3-6 months
Softening of skin/decreased oiliness	3-6 months	--
Decreased terminal hair growth	6-12 months	>3 years
Decreased sexual desire	1-3 months	3-6 months

Adapted from the 2017 Endocrine Society Guidelines²²

6. Masculinizing therapy

First Author: Maria Mavromati

Key Points

- Masculinizing therapy includes parenteral or transdermal testosterone application in analogy to the treatment of hypogonadal cis men.
- Testosterone levels and a complete blood count should be monitored regularly to avoid erythrocytosis.

Masculinizing therapy generally follows the principles of treatment for cis men with hypogonadism and different regimens exist but comparative data among those regimens are scarce^{22,37-39}. Testosterone is administered by transdermal or parenteral preparations with testosterone enanthate or testosterone undecanoate (see Table 6 for doses and intervals). If transdermal testosterone is used, individuals should be cautious to avoid cutaneous transfer to other persons^{1,22,40,41}. Medical conditions that could worsen by testosterone therapy such as erythrocytosis, hypertension, sleep apnea, should be evaluated and addressed before treatment^{1,22}.

Effects of masculinizing therapy and time course

Testosterone therapy will increase muscle mass, decrease fat mass, increase facial and body hair and acne, induce male pattern baldness, induce deepening of the voice, clitoromegaly, increase libido, and it will decrease fertility (see Table 7)⁴²⁻⁴⁴. Testosterone alone is usually sufficient to suppress ovulation and cause cessation of menses, but 10% of transmasculine individuals with total testosterone levels on target will still have uterine bleeding. Progestins or GnRH analogs are an option for these cases^{1,22,45}. They may also be used when starting testosterone. or before starting testosterone, if menstruation causes severe dysphoria. However, the use of GnRH analogues alone should be limited because of the adverse effects

of hypogonadism. It should be noted that testosterone therapy is not a contraception and additional contraceptive measures should be considered if applicable.

Before initiating masculinizing therapy, TGD individuals should be informed on the onset and time course of physical changes induced by the hormonal therapy as well as related risk and side-effects. Explaining the time-course of the physical transition period provides reassurance and helps transmasculine individuals to have clear expectations, relieve stress and avoid unnecessary procedures²².

Follow up and prevention of adverse effects

Endocrinologists prescribing masculinizing treatment should evaluate the progression of physical changes as well as their impact. The main objective of biological monitoring is to avoid adverse effects of testosterone therapy such as erythrocytosis, liver dysfunction, hypertension, excessive weight gain, lipid changes, excessive or cystic acne⁴⁶. Age-dependent testosterone normative values should be considered. Cis men reference values are used as reference points to avoid under- or overtreatment. Serum testosterone is measured on testosterone enanthate midway between injections, with target levels of 14-24 nmol/l, on testosterone undecanoate at the end of the interval with target levels <14 nmol/l, and on transdermal testosterone at least 2 hours after application (target level: mid-normal testosterone level).

Follow-up monitoring includes assessment of CV risk factors (body weight, hypertension, diabetes, hypertension, dyslipidemia, cigarette smoking) complete blood count and lipid profile. Smoking cessation aid should be offered. Hematocrit increases with testosterone treatment^{47,48}. In a large long-term follow-up cohort from The Netherlands (1073 transgender men, 20-year follow-up), risk of erythrocytosis was 11% (Ht >50% with 3.7% Ht >0.52, and 0.5% with Ht >0.54)⁴⁹. Risk is probably lower with transdermal preparation compared with testosterone enanthate and undecanoate⁵⁰. Aggressive behavior does not seem to be increased with testosterone treatment in transmasculine individuals⁵¹. Still, monitoring of testosterone levels and clinical follow-up allows to monitor tolerability, particularly in individuals

with psychiatric comorbidities. Serious hepatic toxicity is extremely rare and universal periodic monitoring of liver function tests is not necessary but could be considered in selected individuals⁵².

Regarding bone health see Section 14²². Particular attention should be directed toward patients who have testosterone levels lower than cis men ranges. and those who stop testosterone therapy after gonadectomy or are taking GnRH analogs only.

Table 6 Testosterone therapy	
Parenteral testosterone	
Testosterone enanthate (Testoviron®)	125-250 mg i.m. every 3-4 weeks
Testosterone undecanoate (Nebido®)	500-1000 mg i.m. every 8-14 weeks, then according to plasma testosterone levels
Transdermal testosterone	
Testosterone gel (Testogel®, Tostran®)	10-80 mg testosterone/day

Adapted from the Endocrine Society Guidelines and WPATH Guidelines ^{1,22}

Table 7 Masculinizing GAHT effects		
Effect	Onset	Maximum
Fat redistribution	1-6 months	2-5 years
Oily skin / acne	1-6 months	1-2 years
Increased libido	1-6 months	-
Cessation of menses	1-6 months	-
Clitoral enlargement	1-6 months	1-2 years
Vaginal atrophy	1-6 months	1-2 years
Facial / body hair growth	6-12 months	4-5 years
Increased muscle mass	6-12 months	2-5 years
Scalp hair loss	6-12 months	-
Deepening of voice	6-12 months	1-2 years

Adapted from the 2017 Endocrine Society Guidelines²²

7. Treatment of non-binary people

First Author: Bettina Winzeler

Key Points

- To date, no standardized treatment protocol exists for non-binary individuals.
- The same therapy principles apply as for binary individuals, but often partial steps are sufficient to obtain partial feminization or masculinization.

Non-binary people experience their gender not as exclusively woman or man but rather locate themselves outside the binary gender order. In the absence of medical and social orientation points, it is even more important to carefully assess their individual gender experiences and perceptions of GAHT when counselling and treating non-binary people. To date, treatment protocols for GAHT in non-binary individuals and long-term data are lacking¹. A recent review summarizes possible treatment strategies⁴.

In principle, the same treatment options exist as for binary individuals with gender incongruence, although sometimes only partial steps are taken. For example, a certain degree of 'feminization' with the development of breast tissue and a change in body fat distribution may be desired without compromising erectile function. In this situation, estrogen therapy alone or low-dose or intermittent androgen blockade may be considered.

In masculinizing therapy, suppression of the menstrual cycle alone (e.g. with oral, subcutaneous or intrauterine progestogens) or low-dose testosterone treatment may be sufficient. Transcutaneous testosterone preparations are particularly suitable for the latter, but the dose and frequency of parenteral testosterone administration can also be reduced. With regard to bone health and cardiovascular risk, it seems reasonable to aim for minimal coverage with endogenous or exogenous sex hormones (hormone levels at least in the lower cis gender norm).

8. Fertility protection

First Authors: Maddalena Masciocchi and Ursula Gobrecht-Keller

Key Points

- GAHT affects fertility.
- Fertility preservation should be discussed with the patients before starting GAHT.

Both feminizing and masculinizing GAHT affect fertility.

Estrogens and/or antiandrogen preparations in transfeminine individual result in reduced sperm production or azoospermia. Nevertheless, sperm production may resume following the cessation of GAHT after a minimum of 3 months. The standard method for fertility preservation is cryopreservation of sperm obtained by masturbation before the start of GAHT⁵³. If this is not possible, sperm can be extracted directly from the testicles.

The administration of testosterone preparations and/or GnRH analogs in transmasculine individuals leads to anovulation and amenorrhea in most cases. Depending on the duration of therapy, the combination of medications and the individual response to it, ovarian function may resume after a specified pause of GAHT⁵⁴. Spontaneous conception following the discontinuation of testosterone therapy is one option, the alternatives are medically assisted reproductive methods and third-party reproduction (surrogate). For individuals who cannot envision pausing GAHT or carrying a pregnancy, establishing fertility preservation through the cryopreservation of oocytes/embryos is an option, ideally before starting GAHT. This process involves ovarian stimulation by gonadotropin injections, ultrasound and oocyte retrieval under sedation. This invasive procedure can be burdensome and may exacerbate gender dysphoria symptoms. In transmasculine individuals who undergo adnexectomy as part of the gender-affirming surgery, which results in irreversible ovarian insufficiency, the removed ovarian tissue may be cryopreserved as a fertility reserve.

Numerous studies indicate that the desire to have children – in accordance to the cisgender population – is a significant concern for both binary and non-binary TGD individuals⁵⁵.

However, a markedly lower percentage of individuals perform fertility preservation^{56,57}. The barriers to this include a lack of legal framework – in many jurisdictions establishing a fertility reserve for TGD individuals is not permitted – high costs, and insufficient information.

Additional factors may encompass the urgency to commence GAHT or the psychological burden (increased gender dysphoria symptoms) associated with fertility treatment itself^{58,59}.

It is therefore strongly recommended to discuss the topic of fertility preservation prior to initiating GAHT, and to generously refer patients to a fertility preservation experts if indicated^{1,22,60}.

9. Long-Term risks of GAHT and cancer screening

First Authors: Barbara Bischofberger-Baumann, Carole Rieben

Key Points

- GAHT is usually a lifelong treatment and is considered to be safe.
- Screening for cancer should follow the current guidelines for the general population.

Overall mortality was found to be higher in TGD and especially in non-binary people with increased numbers of suicide and homicide. Whether living conditions (lack of acceptance in the population, limited access to treatment, minority stressors) and reduced mental health play a role, needs further investigation⁶¹.

Increased mortality due to somatic causes has also been reported especially in transfeminine individuals. There is no clear evidence that GAHT has a direct impact on excess mortality, but associated risks must be considered as it is generally a life-long treatment, especially after gonadectomy⁶². Transgender and diverse individuals treated with hormones should be examined for cardiovascular risk factors before starting and during therapy, see also Section 13.

Cancer Screening

Risk of breast cancer in TGD individuals undergoing GAHT does not appear to be higher than in cisgender individuals, but there is a lack of prospective data⁶³. For TGD diverse individuals treated with estrogen and for those with breasts from natal (endogenous) puberty not having gender-affirming chest surgery, breast cancer screening is recommended following local guidelines for

cisgender women. The timing of the onset of screening depends on age and duration of estrogen exposure. If mastectomy is performed, annual sub- and periareolar breast examinations should be conducted¹. Screening for cervical cancer is currently recommended for sexually active persons with a cervix between the ages of 21 and 70 (see Section 15 for details).

Prostatic cancer is very rare with androgen deprivation therapy, but some cases of cancer and prostatic hyperplasia have been reported^{64,65}. In transfeminine individuals treated with estrogen, screening for prostatic cancer should be discussed and shared decision should be made according to guidelines for cisgender men (Table 8). However, PSA levels should be interpreted cautiously, as a reference range has not been defined and the threshold for further evaluation might be lower for transfeminine individuals under an estrogen based treatment¹²⁶.

Table 8 Screening recommendations für TGD individuals and GAHT

Screening recommendations		
	Transfeminine individuals	Transmasculine individuals
Cardiovascular Disease	Screening for risk factors	
Diabetes mellitus type 2	Screening according to cis individuals	
Dyslipidemia	Annual screening	
Breast cancer	Screening according to cis women	Screening according to cis women in individuals with breasts from natal puberty not having gender-affirming chest surgery. After mastectomy: annual sub- and periareolar breast examinations



Cervical cancer	Not applicable	Screening according to cis women in sexually active individuals if cervical tissue is present
Prostate cancer	Screening according to cis men	Not applicable

10. Treatment of older or medically complex individuals

First Author: Johannes Kliebhan

Key Points

- Age is not a contraindication for GAHT.
- Hormone dosage and route of administration should be adjusted to age and chronic comorbidities.

In older individuals and those with a history of complex or severe concomitant diseases, a close surveillance of hormonal therapy is essential (Table 9). Age is not a contraindication for initiation of GAHT. While studies on GAHT in older trans individuals are limited, evidence suggests that transitioning significantly improves quality of life in this population⁶⁶. Similar to physiological changes in cis individuals, a reduction in GAHT dosage may be considered¹. There are no specific guidelines for discontinuing GAHT at any specific age. In the absence of research evidence, a shared decision-making approach is recommended to achieve individual goals while minimizing potential adverse effects. Approximately 50% of testosterone is metabolized by the liver and sexual hormone binding globulin (SHBG) levels increase in liver disease; hence, dose reduction should be considered in individuals with severe liver conditions. Oral forms of testosterone and estrogen are not recommended. Chronic kidney disease is associated with mild hypogonadotropic hypogonadism, so a mild dose reduction might be indicated in cases of severe kidney disease⁶⁷.

Table 9

Condition	Masculinizing HT	Feminizing HT
Older age/ Andro-/Menopause	- Monitor for CV risk factors (see Section 13 CV health)	- Transdermal estradiol (>45y) ¹

	<ul style="list-style-type: none"> - Monitor for osteoporosis (see Section 14 bone health) - Consider dose reduction analogous cis individuals 	<ul style="list-style-type: none"> - Monitor electrolytes/kidney function with spironolactone use³⁴ - Monitor for cv risk factors (see Section 13 CV health) - Monitor for osteoporosis (see Section 14 bone health) - Consider dose reduction analogous cis individuals
Severe liver disease	<ul style="list-style-type: none"> - Consider dose reduction/adjustment - Consider measuring free testosterone for therapy guidance^{68, 69} 	<ul style="list-style-type: none"> - No oral estradiol or CPA⁷⁰ - No dose adjustment
Severe kidney disease (eGFR < 30 ml/min)	<ul style="list-style-type: none"> Consider measuring free testosterone for therapy guidance, if reliable laboratory method is available⁶⁷ 	<ul style="list-style-type: none"> - Avoid spironolactone³⁴ - Decrease dose of estradiol in ESRD (eGFR <15 ml/min)³³
Risk factors for VTE	<ul style="list-style-type: none"> No dose adjustment 	<ul style="list-style-type: none"> - Switch to transdermal estradiol⁷² - Avoid CPA⁷³ - Avoid supraphysiologic estradiol levels - Consider hematologic referral

Breast Cancer	<ul style="list-style-type: none"> - Conflicting data; consider stopping HT due to possible aromatization to estradiol^{74,75} - Shared decision-making person/gyneco-oncologist 	<ul style="list-style-type: none"> - Withhold therapy, refer for shared decision-making person/gyneco-oncologist - If therapy is continued, aim for lowest possible dose of estradiol
High cardiovascular risk	<ul style="list-style-type: none"> - Continuation seems save^{76,77} - See Section 13 (cv health) 	<ul style="list-style-type: none"> - Switch to transdermal estradiol^{78,79} - See Section 13 (CV health)

HT: Hormone therapy, CV: cardiovascular, CPA: cyproterone acetate, ESRD: end-stage renal disease

11. Collaboration with other disciplines

First Author: Lea Slahor

Key Point

- Endocrinologists providing GAHT should collaborate with other specialists in the field as needed in a multidisciplinary approach.

In general, endocrinologists or gynecologists initiate and monitor hormone therapy (GAHT). But only a multidisciplinary approach involving different health care professionals ensures a standardized and personalized care at every stage of the transition.

Primary care physicians often represent the first point of contact and usually refer patients to specialists. Furthermore, they play an important ongoing role in monitoring general health and managing other acute or chronic conditions.

Besides screening for coexisting mental health conditions, they also provide counseling throughout the transition, if necessary.

Consultation with a gynecologist, respectively an urologist addressing sexual and reproductive health, and discussion of fertility preservation is recommended for every person before starting any medical transition. Regular gynecological screening programs for transmasculine individuals should follow general population recommendations (e.g. Pap smears if a cervix is present), and comprehensive exams if specific symptoms occur. In transfeminine individuals, PSA screening and prostate exams should be performed considering an individual risk stratification^{1,80}.

Maxillofacial, plastic and reconstructive surgeons offer gender affirming facial or genital surgery (see Section 17).

Referral to a dermatologist is often made at an early transition stage as in particular facial hair can lead to significant gender dysphoria. Although feminizing GAHT reduces new body and facial hair growth, a complete elimination of existing hair is usually not achieved, and laser hair removal or electrolysis is often necessary. Dermatologists also assist transmasculine individuals, as masculinizing GAHT may result in acne, as well as increased or unwanted facial/body hair. Speech therapists help to modify voice and to align with gender identity, providing vocal training to change pitch, resonance, or speech patterns, and they are usually already involved early in the transition process.

The timetable for the various measures varies from person to person, in a shared decision-making process, considering the basic principles outlined above as a framework. In summary, a regular professional dialogue between the various disciplines is beneficial for all sides and helps to ensure successful interdisciplinary treatment.

12. Insurance coverage of gender-affirming hormone therapy

First Author: Michelle Egloff

Key Points

- GAHT is considered a medically necessary procedure for GD and is as such covered by insurance.
- Confirmation of cost coverage is recommended for medications not listed on the specialty list or imported from abroad.

Coverage Inclusions:

Gender-affirming hormone treatment is considered a medically necessary procedure for individuals diagnosed with gender dysphoria. As such, it is covered by basic health insurance.

Coverage includes consultations with healthcare providers, hormone medications, and necessary follow-up treatments and monitoring⁸¹.

Treatment must fulfil the following requirements:

- Presence of a medically relevant dysphoria/disease
- Treatment is carried out within Switzerland (principle of territory) and by a certified provider
- Absence of explicit exclusion from insurance coverage by legal regulation
- The intervention must be efficient, appropriate and cost-effective⁸²

Some insurance providers may ask for additional requirements, which are not permissible.

These include in particular the following^{84,85}:

- Any kind of «everyday test»
- Any particular order or pace of transitioning steps
- Minimal age
- Requirement for prior psychiatric treatment or minimal duration of any treatment
- Exclusion of non-binary individuals

Confirmation of cost coverage:

The use of medications for GAHT is usually an off-label use, since none of the used medications has been formally approved for GAHT. However, most providers do not ask for a pre-confirmation of cost coverage before starting hormone treatment using medications that are listed on the specialty list. Yet, some insurance companies may ask for a justification or a report from a mental health professional.

It is recommended to ask for a confirmation of cost coverage with the use of medications not listed on the specialty list. This is particularly the case for Testoviron®, transdermal testosterone, and medications imported from abroad. Medications outside the specialty list will also be covered by insurance, if the medical benefit is evident in a therapeutic setting and is in a reasonable relation to the costs⁸³.

13. CVD health and health risk behaviors

First Author: Hüseyin Cihan

Key Points

- A higher risk of cardiovascular disease and a worse CVD outcome in the TGD population is multifactorial: Minority stressors or lifestyle behavior and classical CV risk factors may play an important role while the specific contribution of GAHT to this risk is uncertain.
- Prevention and control of cardiovascular risk factors is essential, and a healthy lifestyle should be promoted.

TGD individuals have a higher risk of cardiovascular disease (CVD) and a worse CVD outcome, which may be partly attributed to GAHT, but also to other factors, such as minority stressors or lifestyle behavior, as well as classical CV risk factors. Evidence is limited from mostly observational, retrospective studies with a young study population on different hormone

regimens and follow-ups. A recent meta-analysis of 10 studies (19 893 trans women, 14 840 trans men) showed a 40% higher risk for major cardiovascular events in TGD individuals compared with individuals of the same birth sex⁸⁶. In transfeminine individuals stroke incidence was 1.3 x higher (1.8%), similar to an increased stroke incidence of 1.3x (0.8%) in transmasculine individuals, in this group myocardial infarction incidence was also 1.7x higher (0.6%) compared with cisgender women. Venous thromboembolism (VTE) incidence was 2.2x higher in transfeminine individuals (1.6%), and 1.4x higher (0.7%) in transmasculine individuals compared to individuals of same birth sex. These findings align with results of other cohort studies with a 3-5 x higher VTE risk in transfeminine individuals compared to cisgender men, and 2-5 x higher risk than in cisgender women^{88,89}. GAHT affects several CV risk factors with unfavorable changes: Masculinizing hormone therapy results in decreased HDL cholesterol and LDL cholesterol, while triglycerides increase^{88,89}. Inconsistent effects on the lipid profile were found in feminizing hormone therapy, which may be attributed to different treatment regimes^{88,89}. While HDL cholesterol decreased with cyproterone acetate, an increase resulted with similar estrogen-based therapies and spironolactone⁹⁰. Data for effects on triglycerides under a feminizing treatment are inconclusive (decrease or slight increase)^{87,93}. Feminizing therapy showed a favorable decrease in LDL cholesterol^{88,91}. The effects of feminizing GAHT on blood pressure need to consider whether spironolactone was used. An increase in blood pressure with masculinizing hormone therapy was demonstrated in some studies, however with no effect in others studies⁸⁹⁻⁹³. Tobacco use and physical inactivity are reported to be more prevalent in TGD^{94,95}. BMI increased or remained unchanged under masculinizing therapy and resulted in a higher individual lean mass^{96,97}. Data from the USA report an obesity prevalence of 25% in the transfeminine group and 39% in the transmasculine group at baseline, whereas in Europe a significantly lower mean BMI <25 kg/m² was documented in the TGD population^{97,98}.

14. Bone health

First Author: Georgios Papadakis

Key Points

- Osteoporosis screening should be discussed before GAHT initiation and strongly encouraged if risk factors for bone loss are present, particularly in transfeminine individuals.
- Measurement of BMD using DXA is the recommended tool and should be repeated in case of abnormal findings at baseline, suboptimal adherence to GAHT (especially if gonadectomy has been performed) or if new risk factors for bone health arise.
- Treatment of established osteoporosis in TGD individuals should comply with the same recommendations as for the general population. GAHT has been shown to produce neutral or mildly positive effects but cannot be considered as a substitute for osteoporosis-targeted medications.

Sex steroids are crucial regulators of bone homeostasis and hypogonadism is a strong risk factor for bone impairment. Medical and/or surgical interventions in TGD individuals have potential influence on bone health³¹. Both the World Professional Association for Transgender Health (WPATH)¹ and the Endocrine Society guidelines²² address the interest of bone mineral density (BMD) assessment before GAHT using Dual X-ray absorptiometry (DXA), due to a high prevalence ($\approx 30\%$) of low BMD in transfeminine individuals based on several observational studies⁹⁹. There is, however, no strong evidence that DXA screening should be universally performed in TGD people and currently most experts suggest applying the same indications as those used in cisgender populations¹⁰¹. TGD-specific indications to prescribe a DXA scan include the presence of hypogonadism due to gonadectomy or long-standing medical therapy that lowers endogenous sex steroids (such as GnRH analogs) before GAHT or without any plan to initiate GAHT, as well as cases with unsatisfactory adherence to GAHT. Interpretation of the

DXA results is challenging in TGD individuals, as there is no consensus regarding the choice of reference control population. The 2019 International Society for Clinical Densitometry (ISCD) Official Position paper recommends the use of normative data that match the individual's gender identity to calculate Z-scores in both transfeminine and transmasculine persons, while a reference population matching the sex recorded at birth is suggested for gender non-confirming individuals¹⁰¹. However, no single DXA reference population is a perfect match for TGD people and consulting both men and women cisgender Z-scores may be justified. There is no consensus either on how to resolve the sex issue when using the FRAX algorithm to estimate fracture risk in TGD people. A possible but still empiric solution would be to apply the sex assigned at birth and the sex of gender identity before and after GAHT initiation, respectively. Data pooled from several observational studies have concluded that GAHT exerts a neutral effect on BMD in transmasculine, while a modest increase in BMD at lumbar spine is observed in transfeminine individuals¹⁰²⁻¹⁰⁴. GAHT seems not to have any detrimental effect on BMD even after long-term exposure of 10 years¹⁰⁰, but fracture incidence was significantly increased in transfeminine individuals aged >50 years compared to cisgender men¹⁰⁶. When low-energy fractures occur or fracture risk is high based on DXA and clinical risk factors (FRAX algorithm), the decision to introduce an antiosteoporotic therapy as well as the choice of treatment should follow the same guidelines as for the cis population¹⁰⁷.

15. Sexually transmitted diseases (STD) / Gynecological care

First Author: Martine Jacot-Guillarmod

Key Points

- Cancer screening is recommended for individuals with a uterus and/or mammary glands.
- STD screening includes knowledge of the individual's sex practices and anatomy, as well as screening and management instruments.

- Contraceptive counseling is important for sexually active transmasculine individuals.

Cancer screening

According to Swiss guidelines it is recommended to screen for breast cancer and cervical cancer (see Section 9). These recommendations apply for all individuals with a uterus and/or mammary gland, regardless of gender identity or ongoing GAHT.

Screening for cervical cancer is currently recommended for sexually active persons with a cervix between the ages of 21 and 70, using the Pap test at 3-yearly intervals, provided the results are normal. Alternatively, HPV screening can be offered from the age of 30, in accordance with the national guidelines¹⁰⁸.

Genital examination is mandatory to perform a Pap smear. However, this examination can be distressing for TGD people, sometimes leading to avoidance of gynecological care.

It is therefore essential to limit these procedures to what scientific evidence justifies, explaining the purpose of the examination and how it is conducted. The terminology used to describe the anatomical and functional features will be as descriptive and neutral as possible and adapted to the patient's preferences. No examination will be performed without the patient's consent. No systematic genital examination is indicated in asymptomatic patients, apart from cervical cancer screening¹⁰⁹.

STD screening

According to WPATH 8 it is essential that health care professionals who provide care to TGD people develop skills to counsel them regarding prevention of sexually transmitted infections (STI) and manage appropriate treatment when needed¹.

To achieve this, caregivers need to explore patients' sexual practices including a detailed history on sexual attractions and practices through precise, open-ended questions. Vague questions such as “Do you have sexual intercourse?” are to be avoided in favor of more concrete and precise

questions on the type of sexual intercourse (genital, oral, anal), the number and characteristics of partners, and whether a method of protection is used (external or internal condom, dental dam).

The Safer Sex Rules are explained during these consultations. The Safer Sex Check tool is a valuable aid to personalized risk assessment and can be consulted in complete confidentiality^{112,125}, which can be particularly helpful for TGD people.

Furthermore, HIV pre-exposure prophylaxis (PrEP) with Truvada (emtricitabine/tenofovir disoproxil) has been recommended in Switzerland since 2016 for HIV-negative people at high risk of infection¹²⁵.

STI screening mainly concerns HIV, Chlamydia trachomatis (CT), Neisseria gonorrhoea, hepatitis B and C, and syphilis.

Unlike in Anglo-Saxon countries, where screening is recommended annually for people under the age of 25, in Switzerland there are no FOPH (Swiss Federal Office of Public Health) recommendations for CT screening. It is, however, recommended that screening be offered to young patients who are taking sexual risks, as well as to any potentially suggestive symptoms such as unexplained metrorrhagia or abdominal pain in persons with a uterus and a possible desire for subsequent pregnancy. This is justified by the risk of infertility and obstetrical complications secondary to undiagnosed and untreated CT infections. CT screening by vaginal self-sampling is preferred, given its excellent sensitivity and specificity, to avoid unnecessary genital examinations. Urine sampling is proposed as a second-line choice because of its lower sensitivity and specificity. CT screening it is questionable for trans feminine persons with neovaginas. The neovagina, made from penile skin, is hardly susceptible to chlamydia infections. In this case, an anorectal smear or an examination of first-catch morning urine would be more sensitive.

In Switzerland, there are currently no guidelines dedicated to CT screening of the oropharyngeal and anorectal sphere, but it may be justified depending on sexual practices.

Contraception

Aligned with WPATH 8, we recommend that health care providers discuss contraception methods with TDG people engaging in sexual relations at risk of pregnancy¹.

No contraceptive method is contraindicated in people undergoing masculinizing hormone therapy as a result of this treatment. Testosterone, despite the fact that it mainly induces secondary amenorrhea in treated individuals, does not have a contraceptive function, as it does not systematically block ovulation. This is why contraceptive counseling is essential for testosterone-treated individuals with sexual practices at risk of pregnancy.

Contraceptive counseling will include an overview of all existing methods, i.e. estrogen-progestin hormonal methods (pill, patch, vaginal ring), progestin-only hormonal methods (pill, implant, injection, IUD), and mechanical methods (external or internal condoms, copper IUD). As with cisgender patients, the advantages and disadvantages of each method will be discussed. Any contraindications will be investigated through a careful personal and family history¹⁰. The new checklist for professionals of the PROFA foundation (an organization focused on the development of the quality of the emotional, relational and sexual life of all people, at every stage of their lives) is a valuable support tool¹¹.

The choice of contraceptive method is left to the user, after having received information enabling her/him to make an informed choice. Respecting individual choice means better adherence to the method and thus reduces the risk of unplanned pregnancies. The condom is the only contraceptive method that provides effective protection against STIs.

Obstetrical care in TGD people

Aligned with the WPATH 8, we recommend TDG people with a uterus who wish to carry a pregnancy undergo preconception care and prenatal counseling regarding the use and cessation of GAHT, pregnancy care, labor and delivery, chest/breast feeding supportive services, and postpartum support according to local standards of care in a gender-affirming way¹.

16. Sexual health

First Author: Vincent Vibert

Key Points

- Transition can lead to positive but also negative impact on sexual life.
- Counseling about sexuality related issues should be offered.

According to the World Health Organization, sexual health is defined as "a state of well-being in relation to sexuality", which is closely related to physical, psychological, and social well-being.

Gender transition and gender-affirming treatments in particular, have significant effects on sexuality. On one hand, these treatments can positively impact gender dysphoria and increase sexual pleasure and satisfaction. On the other hand, they can negatively affect the sexual functioning of TGD individuals. Before initiating the gender affirming treatment process, many TGD individuals report a negative body image, which limits their sexual satisfaction.

Gender-affirming surgeries generally reduce body dysphoria and allow the experience of new sensations of sexual pleasure, orgasm, and sexual satisfaction. However, due to side effects, they may lead to reduced or even complete loss of erogenous sensations, the development of dyspareunia, or other sexual dysfunctions.

For all these reasons, it is recommended that healthcare professionals take the time to assess the sexual health of TGD individuals¹, explain and discuss the effects of gender-affirming treatments on sexual function, pleasure, and satisfaction. Counseling regarding STDs should also be offered and if needed sex therapy should be proposed (for details see Section 15).

Some TGD individuals may also benefit from pharmacological treatments to reduce the side effects of gender-affirming treatments (such as phosphodiesterase 5 inhibitors, or testosterone in cases of desire disorders, and local estrogen for vaginal dryness).

17. Gender affirming surgery (GAS)

First Author: Michelle Egloff

Key Points

- Endocrinologists providing GAHT should be familiar with the frequently performed surgical procedures.
- Presurgical assessment should be done by endocrinologists or by the general practitioner with expertise in transgender care.
- Perioperative continuation of GAHT is considered safe in most cases, special considerations are needed in older and/or high-risk patients.

Procedures for transfeminine individuals:

1. Breast augmentation
2. Facial feminization surgery (FFS): Hairline advancement and/or hair transplant, forehead reconstruction/brow lift, rhinoplasty, cheek implants/lipofilling, lip reconstruction, jaw and mandible reconstruction
3. Chondrolaryngoplasty
4. Vocal cord surgery
5. Orchiectomy
6. Vagino-vulvoplasty: Penile inversion, sigmoid transplant, peritoneal pull-through
7. Vulvoplasty/minimal depth vaginoplasty

Procedures for transmasculine individuals:

1. Chest reconstruction/Mastectomy
2. Phalloplasty
3. Metoidioplasty
4. Hysterectomy and/or salpingo-oophorectomy

Points to consider for Endocrinologist

Requirements: In general, a persistent, well-documented gender dysphoria is a prerequisite for any type of GAS. Health insurance will usually ask for a psychiatric report and oftentimes also for an endocrinology report. However, a preoperative hormone treatment is not an absolute requirement for GAS, if not desired by the patient¹.

Insurance coverage: Gender-affirming surgery is considered a medically necessary procedure for individuals diagnosed with gender dysphoria. As such, it is covered under certain conditions by basic health insurance^{81,82}.

- Presence of a medically relevant dysphoria/disease
- Treatment is carried out within Switzerland (principle of territory) and by a certified provider
- Absence of explicit exclusion from insurance coverage by legal regulation
- The intervention must be efficient, appropriate and cost-effective (WZW-criteria)

However, insurance companies may challenge the fulfilment of the WZW-criteria, particularly for breast augmentation and facial feminization surgery, and, therefore, refuse reimbursement.

Choice of Surgeon: Gender affirming surgical interventions differ from other interventions in various ways. Therefore, surgeons and institutions performing such interventions should have: Training and documented supervision in gender-affirming procedures, maintenance of an active practice in gender-affirming surgical procedures, knowledge about gender diverse identities and expressions, continuing education in the field of GAS, and prospective tracking of surgical outcomes¹. In order to be able to counsel on and refer to sufficiently experienced surgeons, it is advisable to collaborate with multidisciplinary teams and/or in a network of health professionals specialized in the care of TGD individuals.

Pre-Surgery Assessment: It is recommended to perform a general medical risk assessment prior to referral to surgery. This includes assessment of relevant co-morbidities and medications, cardiovascular risk factors, weight control, risk for venous thromboembolism, mental health issues, and cancer risk. This assessment can, of course, also be performed by a general practitioner familiar with the special needs of TGD individuals. In addition – if not previously done – reproductive options must be discussed prior to gonadectomy^{1,22}.

Pre-Surgery Hormonal Therapy: For certain surgical interventions, a sufficiently long preoperative hormone treatment of 1-2 years is recommended or required for optimal surgical results: phalloplasty/Metoidioplasty; breast reconstruction in transfeminine individuals; facial feminization surgery.

Perioperative Hormonal Management: Several small studies have demonstrated no change in VTE-risk with continuation of GAHT perioperatively, however the literature is still scarce¹¹³⁻¹¹⁶. In young patients, continuation of GAHT in the perioperative setting is considered safe. In older or high-risk patients the risk of hormone deficiency and gender dysphoria should be weighed against the VTE risk, using a shared decision-making approach between the patient, surgeon, and endocrinologist.

Post-Surgery Hormonal Therapy: A hormone replacement regime is mandatory after surgical removal of gonads to avoid hormone deficiency syndrome and its short- and long-term consequences^{1,22}.

18. Transition from adolescent to adulthood care setting

First Author: Fabien Claude

Key Points

- Informing patients (and their relatives, if adolescents agree) about the transition process as soon as possible is recommended (at least two years before transfer). Factors with a

negative impact on the transition process should be recognized and addressed (e.g. somatic or psychiatric comorbidities).

- Considering the complexities of the adolescent period, a multidisciplinary follow-up including a mental health professional, an endocrinologist, a primary care physician, a social worker and a specialized nurse is advisable, according to the specificities of each case.
- It is advisable to schedule one or more joint outpatient visits with both specialized teams for adolescents and adults before the transfer. Longer follow-up by the team of pediatric endocrinologists before transition to adult care, is often adequate.

Puberty blockers (GnRH agonists) may be offered to TGD adolescents after starting puberty (i.e. at least Tanner stage 2), GAHT may be started later during adolescence (around age 14-16 or later), and evaluation of indication and follow-up by a specialized interdisciplinary team of at least pediatric endocrinologists and mental health specialists are mandatory^{1,22}. Fertility counselling should be offered to all patients. However, genital surgery should be postponed until the age of maturity. Interdisciplinary management must be continued into adulthood in a process known as “transition”. The transition process concludes with the transfer of patient care from a specialized team for adolescents to one for adults. The transition process must be individualized and lead to patient empowerment, involving both patients and their relatives^{117,118}. A failed transition may lead to poor compliance with ongoing therapies or discontinuation of follow-up, as described for several chronic conditions¹²⁵, and several tools were developed to guide specialists^{117,119-124}.

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