Gender-affirming healthcare

This article covers the diverse aspects of providing gender-affirming healthcare for Aotearoa's transgender and non-binary people, including the use of puberty blockers and hormone therapy, as well as the general principles behind this rapidly evolving area of medicine. It was written by Cathy Stephenson, Alex Ker and Rachel Johnson, and was peer-reviewed by the Professional Association for Transgender Health Aotearoa board

A note on language: throughout this article, we use the umbrella term "transgender and non-binary" to describe people whose gender is different from the sex they were assigned at birth. Gender diversity is recognised, expressed and celebrated in many indigenous cultures, including te ao Māori and across the Pacific. These cultures have their own understandings and histories of gender diversity. People may use culturally specific language, such as takatāpui and fa'afafine, to describe their gender. We recognise that everyone uses different language, which may be different to the language we use in this article.

Transgender and non-binary (TNB) people make up a diverse yet often overlooked part of Aotearoa's population. Despite the growing awareness of gender diversity in Aotearoa, many TNB people still face unique challenges to their wellbeing due to the compounding effects of widespread discrimination and stigma against people whose gender does not align with accepted ideas about what a "normal" gender is or looks like. These challenges include high rates of mental distress.[1]

Most TNB people experience *gender dysphoria* – the discomfort caused by the misalignment between a person's gender and their body. Dysphoria can be caused or heightened by physical, psychological, sociocultural, spiritual or relational factors, which contribute to a person's gender identity and expression. Some people may alternatively use the term *gender euphoria*, to describe the positive aspects of transitioning.

Transitioning refers to the social, legal and/or medical steps a TNB person might take throughout their life to affirm their gender. Transitioning looks and feels different to everyone depending on their needs, cultural or religious background and access to resources. For some people, transitioning is seen as a collective process involving the person's whānau.

People may face various barriers to transitioning, such as lack of family support or financial resources. Because gender-affirming services in Aotearoa are not funded consistently across DHBs, some people's ability to transition are also limited by "postcode lottery", or their geographic location.

A person's transition goals may (but do not always) include accessing transition-related healthcare, such as hormone therapy or puberty blockers, chest or genital reconstruction surgeries, voice therapy or psychosocial support. These types of healthcare are commonly referred to as gender-affirming healthcare.

Gender-affirming healthcare is recognised as medically necessary by national and international health organisations and associations, and can significantly improve TNB people's quality of life.

Counting Ourselves, Aotearoa's first transgender health survey, found that most TNB people in Aotearoa access gender-affirming healthcare through their primary care providers. Although almost 60 per cent of survey participants reported that their main healthcare provider knew most or everything about gender-affirming healthcare, just over one-third of participants had not sought general medical care when they needed it due to being worried about being mistreated or disrespected.[1]

These findings highlight the importance of increasing medical education on gender-affirming healthcare and ensuring that healthcare services are visibly affirming and safe spaces for TNB people.

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Do you need to read this article?

Try this quiz

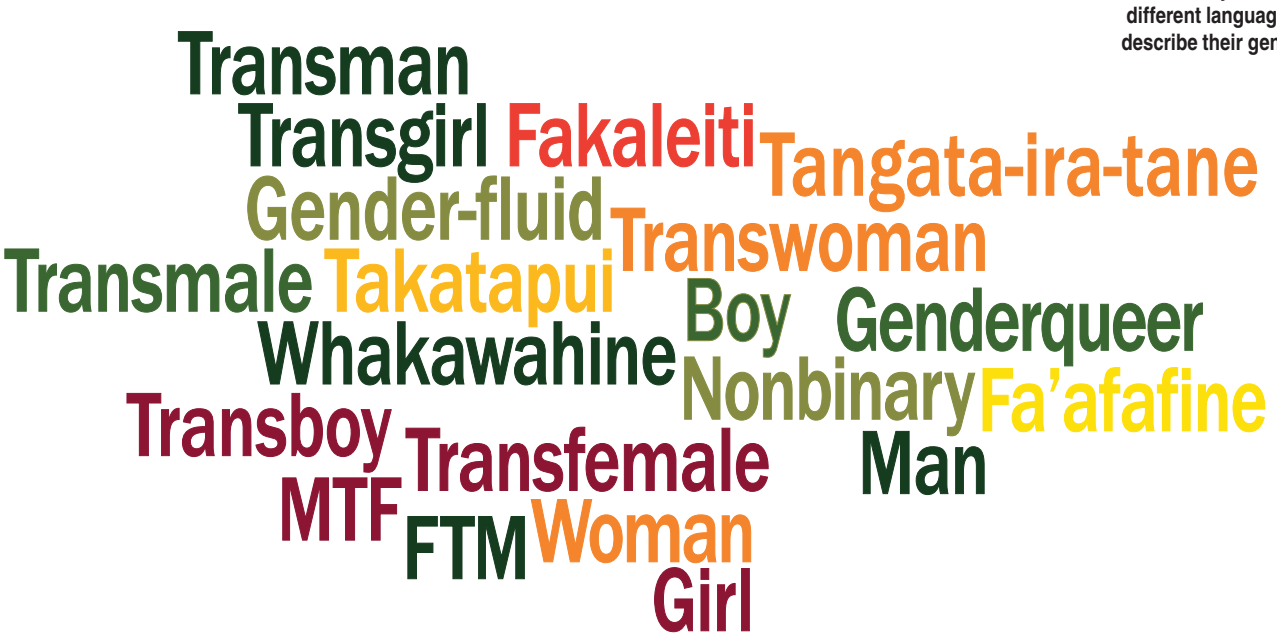
1. **Transgender and non-binary patients have the same routine health needs as every other patient.** True/False
2. **Using a patient's birth name can trigger gender dysphoria.** True/False
3. **Mental health issues preclude patients from accessing gender-affirming hormone therapy.** True/False
4. **Transdermal oestrogen has a reduced risk of thromboembolic events compared with oestrogen tablets.** True/False
5. **Yearly genital examinations are required for those on gender-affirming hormone therapy.** True/False

Answers on page 43

Meeting transgender and non-binary patients' needs in primary care

There are a few overarching principles to consider when working with TNB patients in primary care, as discussed here.

Everyone uses different language to describe their gender



Routine health needs

Although many TNB patients will seek assistance from their primary care provider for specific gender-affirming healthcare, it is important not to assume this is the reason for the consultation. TNB patients have the same routine health needs as every other patient in your practice, including sexual health, contraceptive needs, vaccinations and screening based on their anatomy.

Providing medical care in a way that affirms your patient's gender should be routine, no matter what the patient's presenting issue is, just as it should be for every other patient in your practice.

What is gender?

Gender is the social perception we develop about ourselves, and the way we express ourselves, such as through hairstyles or clothing. Gender is not the same as sex – they are often aligned, but that isn't always the case – Scott (he/him)

Cultural safety

Like everyone, TNB patients have unique cultural identities, beliefs and values. A person's cultural background can influence their gender and transition in many ways, from the importance of including whānau throughout transitioning, to cultural understandings of health and gender.

It is essential to work with patients in a way that aligns with their world views and meets their health needs. Building trust and relationships are central to Māori and many Pacific cultures. Concepts such as whakawhanaungatanga (relationship building) and va ("the space in between") are important to practice when working with Māori and Pacific patients in particular.

Advocacy

Try at all times to be your patient's advocate and ally. It is okay not to know all the answers, especially if gender-affirming healthcare isn't something you have experience in. Assure your patient you will follow up with their requests and referrals, and that you will find someone who does know the answers if you don't. Removing the inherent barriers in the health system and advocating on your patient's behalf may well be the most effective role you can play.

Healthcare professionals can also play a role in other areas of a person's transition. For example, if your patient wants to change their legal name or gender marker on their identity documents, you can assist the process by providing documentation supporting their application as required.

Describe any barriers to accessing healthcare

The main barrier is finding the providers. It can be a tough task if you are isolated in a rural part of the country and have limited options. It's difficult to know which healthcare providers are trans friendly – Scott

When I requested to start hormone replacement therapy, I was referred to the DHB. There was a six to nine-month wait to see the psychologist, so I opted to see a private psychologist, which cost $700 – it was lucky I had some savings at the time – Cam (they/them)

Access

Don't be a gate-keeper. As primary care providers, it is not our role to decide someone's gender for them but to support them to live in their affirmed gender.

TNB patients have historically had poor access to services. We can go some way towards redressing this by affirming our patient's choices at all times and enabling them to access the care they need, when they need it. Affirming a patient's gender and autonomy can make a service more accessible.[2]

Support

As is the case for other minority groups, TNB people experience higher rates of mental ill health, including suicidality and self-harm, and are subject to more trauma and abuse than others. Levels of distress can be compounded by long waiting times and poor or no access to local services.

Offer your patient and their whānau as much support as you can, and screen for mental distress when appropriate. Find out which local counsellors or support workers have experience working with TNB patients, and consider connecting your patient with local or national networks if they are keen to meet others in similar situations (see the list at the end of this article).

Gender-affirming healthcare

If your patient wants to access gender-affirming healthcare, find out the available referral pathways in your area. These pathways vary across the country and, sometimes, within districts.

Some primary care providers are starting to initiate gender-affirming hormone therapy (GAHT) alongside appropriate mental health and community peer support, but elsewhere, this remains a specialist service in either endocrinology, sexual health or paediatrics. Your online health pathway is the best place to look for this information.

If your area does not have a localised pathway for gender-affirming healthcare, you could advocate for that to happen – it's a great way to improve service access for patients. Note that, at present, testosterone and cyproterone require specialist endorsement for prescribing.

All patients on GAHT require ongoing maintenance and monitoring (covered on the last page of this article).

What do you wish your GP knew about gender-affirming healthcare?

Just how to interact with gender diverse patients. It would be nice if they introduced themselves with their pronouns and took the time to check preferred names – Scott

CASE STUDY 1

Don't make assumptions

Mary is booked on your template. She is 35 years old and new to your practice. Her gender is marked as "F" on your practice management system, and you note that it states "trans woman" in her medical history.

Key points

- Avoid assuming Mary's gender, sexuality, name or pronouns. Ask your patient at your first meeting what language they use to describe their gender. You could also introduce yourself with your pronouns to signal you are aware of gender diversity and, if appropriate, ask the patient what pronouns they use. Document this clearly in your records so that it is visible to you and other team members in the future.
- Don't assume that Mary has come in to discuss her transition – she has the same health needs as any of your other patients, so make sure you are addressing her needs.
- If Mary takes GAHT, be familiar with how to safely prescribe and monitor this (covered later).
- Demonstrate to Mary and other TNB people that you are an affirming, safe place by putting rainbow or transgender pride flags or posters at reception, including pronouns on name badges, providing gender-neutral toilets, asking about pronouns and gender on your registration form, or having affirming messages on your website. The RNZCGP's audit on gender-affirming healthcare is a great place to start.
- Ensure all team members understand the basics around gender diversity and the importance of using a person's self-determined name and pronouns (rather than their birth name or "dead name").
- Approach the healthcare journey with Mary as a partnership. In our experience, we have learnt more from our TNB patients than they have from us. This has enriched and improved the care we have been able to offer others.

How to support a young person requesting puberty blockade

Though research indicates that the rate of young secondary school-aged New Zealanders who identify as transgender has remained stable at around 1 per cent over the last decade,[3,4] the number of adolescents seeking gender-affirming healthcare is increasing. This is likely due to the growing visibility and understanding of gender-affirming healthcare, and people feeling more able to seek necessary support in their communities and with whānau.

General information

All GPs should have basic knowledge on gender-affirming healthcare for young people, whānau support, resources, and local care and referral pathways. Given the increase in young people seeking care, specialist services should work collaboratively to transition clients back to primary care and provide further support as appropriate.

Although no specific medical intervention is required for pre-pubertal children, whānau members may require general peer or formal support and information on affirming their child's gender (see the resource list at the end of this article for links to whānau support networks).

If a child is insistent, consistent and persistent in their gender identity or is experiencing gender dysphoria, referral to local gender-affirming services is recommended (around age nine/before puberty onset) to ensure timely access to puberty blockers at the onset of puberty, if required.

Puberty blockers

Gonadotropin-releasing hormone agonists (eg, Lucrin or Zoladex) are commonly used among young people experiencing gender dysphoria. They are considered to be relatively safe and reversible medications that stop the production of sex steroids, pausing puberty.

Puberty blockers have been used for many years to treat precocious puberty in younger children. They are ideally used from Tanner stage 2–3 to stop pubertal changes that would potentially cause intense distress when that puberty does not align with the child's gender identity.

They are also helpful for transfeminine adolescents who are in later puberty to stop the masculinising changes that would otherwise continue. For transmasculine young people in later puberty, while puberty blockers are effective for menstrual cessation, there are other options with fewer side effects that should be considered first.

The effects of puberty blockers are reversible and allow time for a young person to continue developing before making any permanent decisions around GAHT. They can also allow whānau time to catch up on the young person's journey. If the use of blockers is delayed, unwanted physical changes (particularly breast and hair growth) can progress, which may lead to significant harm and distress.

The main potential risk of puberty blockers is the impact on future bone health, which is not yet clear. This may be increased in later adolescence and with other health risks that impact on bone density, such as anorexia. It is important to continue to assess both the benefits and risks of taking blockers, and to aim to minimise time on a blocker alone. Further information, including consent forms, are available on the Hauora Tāhine website (healthpoint.co.nz).

Healthcare providers should discuss fertility preservation options with young people before starting puberty blockers. Theoretically, sperm storage is publicly funded in all DHBs; however, you may be required to advocate for access to this in some regions. New Zealand does not offer fertility preservation options for adolescents in early Tanner stages (2–3) as testicular biopsy is considered experimental and is not yet available.

JAYE BARCLAY (THEY/THEM, HE/HIM, IA/TANA/ANA)

Gender-affirming hormone therapy

The gender-affirming hormones oestrogen and testosterone are used to affirm a person's gender. Many (but not all) TNB people will want to start GAHT, and demand is expected to rise in the future as referral pathways become easier to navigate. As a primary care provider, you are likely to be the first point of contact for patients who want to explore GAHT. Understanding your local pathways and referral processes will help streamline access and reduce wait times for your patient.

The Aotearoa *Guidelines for Gender Affirming Healthcare*[5] refer to the World Professional Association for Transgender Health (WPATH) *Standards of Care* (https://bit.ly/3l4bxMR), which provide internationally recognised standards and criteria for accessing GAHT.

The current WPATH criteria for access to GAHT include:[6]

- persistent, well-documented gender dysphoria
- capacity to make a fully informed decision and to consent for treatment
- age of majority
- if significant medical or mental health concerns are present, they must be reasonably well controlled.

It should be noted that these criteria may change soon, as WPATH's guidelines are due to be revised to emphasise the importance of fully informed consent as the main criterion for accessing GAHT. The Aotearoa guidelines endorse ensuring that any mental health concerns should not be a barrier to accessing GAHT, but are well supported and managed alongside GAHT.

Although the "age of majority" is considered a criterion for starting GAHT in the WPATH guidelines, in Aotearoa, young people aged 16 and older are considered to be able to consent to medical care.[7] On occasion, there may be compelling reasons to initiate hormones before age 16, although there is currently little published evidence to support this.

Consideration should be given to the individual circumstances, including whānau support, length of time on puberty blockers, final height, risks of delaying hormones and, most importantly, the ability to consent. There is no upper age limit for commencing GAHT.

Was starting hormones a hard decision for you?

I thought about it for approximately two years before starting testosterone. The social aspect of transitioning was more difficult, and having to come out to family and friends. Being able to use hormone replacement therapy has majorly impacted my quality of life in a good way – I am able to live as the best and most authentic version of myself possible – Scott

What happens next?

Access to services varies significantly around the country, so please follow your local protocol. This information should be provided by your online health pathway, but if not, we suggest you talk to colleagues or ask your local TNB support group.

CASE STUDY 2

Teenager wanting puberty blockers

Taylor, a 15-year-old Māori transmasculine young person, presents to his GP wanting to access puberty blockers. He has experienced gender dysphoria relating to voice, chest and menstruation since the onset of puberty and is socially transitioning at school. While some of his whānau are affirming of his gender, others are struggling with their acceptance. He sometimes experiences anxiety and suicidal ideation, often triggered by gender dysphoria.

Key points

- Listen, affirm and acknowledge that Taylor is the expert of his own gender. Use Taylor's chosen name and pronouns if safe to do so. Ask Taylor which name and pronouns he uses with his whānau as this may differ to his chosen name and pronouns.
- If not accompanied by a caregiver, ask Taylor which adult whānau members could be involved in his healthcare to provide support. Including whānau, whenever safe to do so, is important for all young people, particularly rangatahi Māori. Be available to listen to Taylor and whānau separately. It is important to acknowledge they may be at different stages in their journey.
- When talking to whānau, acknowledge that feelings of grief, loss, guilt and fear come from a place of caring about their rangatahi. Gently reinforce the importance of affirmation and whānau support for Taylor's hauora. Provide culturally appropriate resources, such as *Takatāpui: Part of the Whānau* (https://bit.ly/2EsoAYC).
- Ask Taylor about any support he may want with his social transition. For example, discuss safe chest binding or consider resources that may support Taylor at school (see resources at the end of this article).
- A HEEADSSS (Home environment, Education and employment, Eating, peer-related Activities, Drugs, Sexuality, Suicide/depression, Safety) psychosocial interview can help identify a young person's resilience and screen for risks, such as anxiety, depression, self-harm, suicidal ideation and disordered eating (https://bit.ly/2SgX3fT).[8] The assessment can help Taylor and his whānau explore how gender dysphoria influences these areas, including triggers for gender dysphoria. Provide a safety plan, information on coping with gender dysphoria, and mental health support as needed.
- If needed, discuss menstrual cessation options: continuous use of the combined oral contraceptive pill; norethisterone 5mg twice daily, increased to 10mg twice daily for one week if there is breakthrough bleeding (if no contraindication to oestrogen-containing preparations); depot medroxyprogesterone acetate (Depo-Provera); or the levonorgestrel-releasing intrauterine system (Mirena). Also consider Taylor's contraceptive needs.
- Be familiar with the different pathways for gender-affirming healthcare for young people in your region. Consider what can be done in primary care and refer early if secondary level care is required, such as accessing puberty blockers or hormones.

How to support a person wanting to start gender-affirming hormone therapy

One of your regular patients comes to see you. He is transmasculine, uses he/him pronouns and is 21 years old. He has been experiencing gender dysphoria since puberty, and has recently started socially transitioning – he is wearing more masculine clothes, binding his chest, and has asked you to use his preferred name Ricky in your consulting room. He is keen to start GAHT and wants information about this process.

Ask about transition goals and dysphoria

Although GAHT can relieve gender dysphoria, it isn't always going to provide the outcome that patients hope for, particularly for patients who haven't accessed puberty blockers. Talking to Ricky about what physical changes are likely to happen (or not) on GAHT, and what the realistic timeframe is, can enable him to adjust his expectations accordingly.

See Tables 1 and 2 for more information, but bear in mind that everyone is different in terms of how they respond to GAHT. Note that the following changes are permanent: deepening of voice, facial and body hair growth, hair loss at temples and genital changes with masculinising hormones; and breast growth with feminising hormones.

Ask Ricky who is supporting him with transition – this could be family, friends and work colleagues. Ricky may appreciate being linked in with peer support groups in the area.

Ask Ricky about his experiences of dysphoria, such as menstruation, voice pitch or chest appearance. If Ricky's chest causes dysphoria, talk to him about safe binding and discuss future options for top surgery (ie, mastectomy and chest reconstruction).

If menses are triggering dysphoria, offer options for menses cessation, such as continuous combined oral contraceptive, depot medroxyprogesterone acetate or the levonorgestrel-releasing intrauterine system. Spending time exploring what is underlying his dysphoria, and offering management options while Ricky is waiting for access to gender-affirming procedures, can provide relief from discomfort or distress.

How do you describe transition?

Freedom. It feels like the ability to do the things that validate yourself, which get supressed when you cannot transition socially, physically or both. Empowering. It might be the first time you have the chance to fully express yourself, and this can be pivotal in the trajectory of your life – Scott

Social transition is about having your correct gender identity recognised in social settings. Alongside whānau and friends acknowledging who you are, there is also legal recognition, such as having the correct gender marker on passports and medical records. Physical transition is about finding the right level of physical comfort and recognition in one's own body; for some people, this would involve changes like going on hormone replacement therapy or getting gender-affirming surgery – Cam

Table 1 **Effects of masculinising hormones**

Effect of testosterone	Expected onset	Expected maximum effect	Reversibility
Cessation of periods	1–6 months		Likely
Clitoral enlargement	1–6 months	1–2 years	Unlikely
Vaginal atrophy	1–6 months	1–2 years	Unlikely
Skin oiliness/acne	1–6 months	1–2 years	Likely
Deepening of voice	6–12 months	1–2 years	Not possible
Redistribution of body fat	1–6 months	2–5 years	Likely
Increased muscle mass and strength	6–12 months	2–5 years	Likely
Facial and body hair growth	6–12 months	4–5 years	Unlikely
Scalp hair loss	6–12 months*	Variable	Unlikely
Increased sexual desire	Variable	Variable	Likely

**Highly dependent on age and inheritance; may be minimal*

Table 2 **Effects of feminising hormones**

Effect of oestrogen	Expected onset	Expected maximum effect	Reversibility
Decreased sexual desire	1–3 months	3–6 months	Likely
Decreased spontaneous erections	1–3 months	3–6 months	Likely
Softening of skin/decreased oiliness	3–6 months	Unknown	Likely
Decreased muscle mass and strength	3–6 months	1–2 years	Likely
Redistribution of body fat	3–6 months	2–3 years	Likely
Breast growth	3–6 months	2–3 years	Not possible
Decreased testicular volume	3–6 months	2–3 years	Unknown
Decreased sperm production	Unknown	>3 years	Unknown
Thinning and slowed growth of facial and body hair	6–12 months	>3 years (complete hair removal requires laser treatment)	Possible
Male pattern baldness	Variable	a	
Voice changes	None	b	

a. Familial scalp hair loss may occur if oestrogens are present
b. Treatment by speech-language therapists for voice training is most effective

Examination

In terms of physical health, there are very few (if any) complete contraindications to GAHT, though conditions to consider include migraine with aura, hormone-dependent cancers, clotting disorders, obesity and smoking status. Take a medical history as you would for any other patient, including family history, any medications Ricky might be taking, alcohol or other drug use, and anything else that might be relevant.

If there are no major red flags in terms of general health, the only examination required is to check blood pressure, height and weight. It is not appropriate to examine Ricky's genital or chest areas, and this can lead to unnecessary trauma.

If Ricky has concerns that would usually require a physical examination, consider alternatives to examination (eg, self-reporting using a Tanner chart). If you think an examination is required, the reasons for this should be fully discussed to allow Ricky to make an informed decision around whether he is happy to have the examination, and whether or not he would like a support person present.

You can carry out some baseline checks and blood tests before Ricky is seen elsewhere. See Table 3 for recommendations.

Informed consent

To give informed consent, Ricky needs to fully understand what GAHT entails, including the potential benefits, risks and irreversibility of GAHT. Patients report a wide range of responses and reactions from their support networks, and this understandably impacts on their wellbeing.

Mental health screening

As TNB patients are more likely to experience mental health issues, a mental health screening assessment is important. Treat any mental health issues in Ricky as you would for any other patient, and refer for more specialised support or assessment as needed. Ensure any mental health issue is well supported before starting GAHT, keeping in mind that this should never be a barrier to accessing hormones.

Wider psychosocial implications

Encourage Ricky to discuss the wider psychosocial implications of transition with a mental health practitioner. This does not need to be a psychiatrist or psychologist, but any mental health provider with expertise in the area. Although a "readiness assessment" was previously a prerequisite to accessing GAHT, health providers in Aotearoa, as in other countries, are moving towards an informed consent model where a formal assessment is no longer required.

Unless you feel this work is within your scope and expertise, refer Ricky to someone in your area who does this work regularly. This information should be visible on your local health pathway. In my experience, the majority of patients embarking on GAHT find these conversations really useful, and as a GP, I really appreciate the support another health provider can offer.

If this expert support is not funded in your area, consider utilising local funding pathways, such as "improved access" or even Work and Income funding if needed, or seeing if a national provider such as OUTLine (outline.org.nz) might be able to provide this support remotely. Ricky might also be keen to connect with other people who are taking GAHT through local or online support groups.

Binding

Check in to see if he is having any issues with binding. The long-term use of binders, particularly if they are too tight, can lead to pain in the spine and chest area, breathing issues, and even rib fractures and permanent deformities. Physiotherapists can be really helpful if there is anyone with specialist knowledge in your region. Ricky may also be interested in connecting with the Wellington Binder Exchange community on Facebook or the national free binder programme (https://bit.ly/33117Y8).

Sexual health and fertility

Discuss with Ricky any other immediate concerns, particularly around contraception and sexual health, and manage as appropriate. Ensure Ricky knows that, even if he is amenorrhoeic on testosterone, he is still potentially fertile and will require additional contraceptive when appropriate. Testosterone is contraindicated in pregnancy.

Though the long-term effects of GAHT are not yet clear, fertility may be affected. In Aotearoa, there is provision for funded sperm storage via local fertility services for those wanting to start feminising hormone therapy.

For Ricky, funded egg storage is not an option unless he were considering oophorectomy, but some places do offer a free fertility consultation to talk through private options, which he may want to take up. Inform him that while fertility is never guaranteed for anyone, many transmen have successfully stopped GAHT for the purposes of planned conception.

The Transgender Pride Flag was created as a symbol of transgender pride, diversity and rights

Table 3 **Recommended medical examination and investigations prior to starting GAHT**

	Before starting masculinising hormones	Before starting feminising hormones
Physical examination: blood pressure, height, weight, BMI, Tanner stage (in adolescents; can be done by looking at a chart if required)	Yes	Yes
Investigations:		
Electrolytes	Not required	If starting spironolactone
Full blood count	Yes	Not required
HbA1c level	If indicated by risk factors	If indicated by risk factors
Lipids	Yes	Yes
Liver function tests	Yes	Yes
Luteinising hormone level	Yes	Yes
Oestradiol level	Yes	Yes
Prolactin level	Not required	Yes
Testosterone level	Yes	Yes
Urine/serum human chorionic gonadotropin	If appropriate	No

Voice changes

Funded vocal therapy may be an option in your region; if not, discuss accessing private speech language therapy as an alternative. However, for people starting masculinising hormones, the advice is to wait until they have been on GAHT for at least a year, during which time, their voice is likely to alter.

This is not the case for those starting feminising hormones, who can start vocal therapy at any stage of their transition.

Referral

After discussion with Ricky, he asks to be referred to your local GAHT provider.

Before referring Ricky, ensure you have done everything on your referral "checklist":

- blood tests and basic measurements, such as blood pressure, height and weight
- fertility discussions
- assess and support any mental health requirements/needs
- assess and manage any physical health issues
- assess ability to give informed consent (note that in some places, there may still be a requirement for a mental health provider to be involved in this part of the process).

Talk to Ricky about what he can expect from GAHT – we recommend using the consent forms for hormones as a discussion guide as they provide useful overviews of the treatment options, risks and side effects (download from https://bit.ly/2Ezxyn2).

Ricky will be prescribed testosterone, usually via injections, with upwards titration of dose depending on physical changes and side effects.

A patient wanting feminising hormones will be started on oestrogen – usually patches or tablets – but will also need an anti-androgen (eg, spironolactone, cyproterone or a gonadotropin-releasing hormone agonist) to counter the effects of their natural testosterone.

Note that transdermal oestrogen (patch) has a reduced risk of thromboembolic events and should be offered to everyone, but it is particularly indicated in the presence of increased thromboembolic risk, such as with increasing age, smoking, etc.

Offer Ricky support while he is waiting to be seen – in some areas, there may be a delay of several months or even more, which can be very difficult for patients with significant dysphoria or distress.

Quiz answers

1. True **2.** True **3.** False **4.** True **5.** False

The ongoing role of the primary care team in a rapidly evolving field

After initiating GAHT, patients will usually be referred back to their primary care provider for maintenance hormone prescribing. As primary care providers, our goal is to ensure that ongoing care not only affirms and meets our patients' needs but also enhances their health and wellbeing. This premise should apply regardless of whether a patient's needs are related to general health or their transition.

Follow-up with Ricky

Ricky is established on testosterone injections. He comes to your practice for ongoing prescribing and management of his hormonal transition. Ideally, you should have received information from the prescriber regarding the type and dose of testosterone prescribed, and what monitoring has been done. There is a variety of options for testosterone, ranging from one to two-weekly injections of Depo-Testosterone, three-weekly Sustanon 250, or longer acting Reandron given every 10 to 12 weeks. If you don't have this information, contact the prescriber.

Many patients on the shorter acting testosterones value the independence and convenience of self-injecting. Ensure Ricky has both the training and the equipment he needs to do this safely and successfully. Reandron should not be self-administered as it requires a deep intramuscular injection.

Talk to Ricky about how he is finding GAHT so far, and check in to make sure he isn't experiencing any side effects. You may need to discuss other testosterone options. The prescribing clinician should be able to advise on this.

Give an example of good gender-affirming healthcare

Seeing the nurses every fortnight for my injections. They would make me feel good because they noticed the changes caused by the hormones – Scott

It is always positive when health professionals respect gender identities and pronouns. It was great when I learnt how to self-administer my injections – the nurses guided me through the steps and provided resources for me – Cam

Monitoring

Arrange the appropriate monitoring for Ricky (Panel 1). Initially, these tests should be done every three months or so, but by 12 months, most of them can be annually (providing results are normal). Monitor full blood count as the haemoglobin and haematocrit levels will rise in the presence of exogenous testosterone – reduce the testosterone dose if haematocrit is >0.52L/L.

The equivalent advice for monitoring those on feminising hormones is given in Panel 2.

Keep an eye on weight and blood pressure annually. Ricky can self-report what bodily changes are happening – checks by a health provider are not appropriate unless clinically essential. Ensure any sexual health or contraceptive needs are also met.

Complications of GAHT

Be alert for any potential complications of masculinising therapy:

- polycythaemia – if severe, there is risk of a thrombotic event
- adverse lipid profile
- mood and libido changes
- obstructive sleep apnoea
- small risk of liver dysfunction, insulin resistance, cardiovascular disease, endometrial hyperplasia and osteoporosis.

Potential complications of feminising therapy:

- venous thromboembolism – most common in the first two years of treatment, particularly if aged >40; reduced risk on transdermal oestrogen; if aged >40 or there are other deep vein thrombosis risks, consider switching to transdermal oestrogen
- cardiovascular disease – adverse lipid profile, hypertension
- insulin resistance
- liver dysfunction
- gallstones
- mood and libido changes
- small risk of osteoporosis, breast cancer and (rarely) hyperprolactinaemia.

Note that cyproterone carries a small, dose-dependent risk of meningioma – consider either switching patients to spironolactone or reducing the dose to 12.5–25mg, which is enough to satisfactorily suppress testosterone levels.

Cancer screening

TNB patients should be offered cancer screening based on their anatomy. This means that Ricky, who has not had top surgery and still has a cervix, should be offered cervical and breast screening at the appropriate ages.

For other patients, screening as per usual guidelines should be offered to all those who haven't undergone chest or genital reconstruction surgeries. Ensure TNB patients have the appropriate recalls in place according to their sex assigned at birth, not their gender.

This process needs to be managed carefully by primary care teams as many TNB people find cancer screening physically and emotionally challenging. Word both recall letters and text messages with references to anatomy, not gender (eg, refer to "people with a cervix" rather than "women").

Give an example of a negative healthcare experience

When going for injections at other health services, I have been asked whether I understand the impact on my body that testosterone will have, and if I was sure about proceeding with the injection. Being called Susan multiple times, instead of my preferred name Scott, but feeling unable to correct this because they would have the authority to refuse to provide me healthcare. This has led to feelings of anger and hopelessness – Scott

Gender-affirming surgery

If Ricky wants to discuss gender-affirming surgery, keep in mind that there is limited availability and funding across Aotearoa.

All DHBs have expertise in gender-affirming hysterectomy, oophorectomy and orchidectomy, and access should be available locally for these. The provision of chest surgeries requires particular expertise and may only be available in tertiary care. Other surgical options that usually aren't publicly funded include laryngeal shaves and facial feminisation.

PANEL 1

Ongoing investigations for maintenance masculinising therapy

Blood tests

- full blood count – every three months in the first year, then one to two times yearly; if there is polycythaemia risk, monitor haematocrit
- HbA1c level – if indicated by risk factors
- lipids
- liver function tests
- testosterone level – aim for the normal male range; testosterone level should be measured midway between injections of Depo-Testosterone or Sustanon 250, and immediately prior to an injection of Reandron.

Bone density scanning

If there are major risk factors for osteoporotic fracture, consider a bone density scan (dual-energy x-ray absorptiometry).

PANEL 2

Ongoing investigations for maintenance feminising therapy

Annual blood tests

- electrolytes – monitor more frequently if on spironolactone
- HbA1c level – if indicated by risk factors
- lipids – if indicated by risk factors
- liver function tests
- oestradiol level – avoid supraphysiological levels; aim for <500pmol/L
- testosterone level – aim for <2nmol/L.

Every two years

- prolactin level.

Bone density scanning

If there are major risk factors for osteoporotic fracture, consider a bone density scan (DEXA).

Currently, access to publicly funded gender-affirming (genital) surgery – metoidioplasty or phalloplasty (masculinising) and vaginoplasty (feminising) – is via the Ministry of Health's gender-affirming (genital) surgery service (see resources for healthcare professionals below). Again, how to refer depends on which DHB you are in, so visit your local pathway to find out about the process.

Keeping up to date

To conclude, we encourage you to keep up to date with developments in gender-affirming healthcare, particularly at a local level. This is a rapidly evolving field, and ensuring you know the latest information on services and procedures can make a huge difference to your TNB patients' quality of life.

If you are interested in learning more, the Professional Association for Transgender Health Aotearoa (PATHA) is a fantastic network to be connected to. They are in the process of developing online modules for primary care and other providers.

Counties Manukau DHB Kidz First Centre for Youth Health runs workshops on providing gender-affirming healthcare for children, young people and families (https://bit.ly/2HobmgA).

From a clinician's perspective, this truly is rewarding and important work, and it is worth doing well. As one of our patients put it, all they want from their primary care team is "simply just comprehensive healthcare – no assumptions or judgements about my lifestyle". ■

Go to ELearning at nzdoctor.co.nz for the references to this article, and for a list of terminology

Resource list

Social transition

- Naming New Zealand – an organisation to help transgender, gender diverse and intersex youth update their identity documents to correctly reflect their sex and gender. naming.nz
- Gender Minorities Aotearoa – a national community organisation with a wealth of information and support options, including information on binding. genderminorities.com
- Wellington Binder Exchange – can be found on Facebook.
- InsideOUT – the *Making Schools Safer for Trans and Gender Diverse Youth* resource is aimed at schools or anyone working with TNB young people. insideout.org.nz
- Transcend Australia – provides parent/carer and school support, community connection, information and resources. transcendaus.org

Whānau support

- Health Navigator. Gender diversity support services. July 2020. healthnavigator.org.nz
- Kerekere E. *Takatāpui: Part of the Whānau*. Auckland, NZ: Tiwhanawhana Trust and Mental Health Foundation; 2015. takatapui.nz
- Murchison G, et al. *Supporting & Caring for Transgender Children*. Washington, DC: Human Rights Campaign; 2016. hrc.im/supportingtranschildren
- RainbowYOUTH. Trans, gender diverse and intersex children under 12. https://bit.ly/3i4KWx0
- OUTLine. Let's Talk: A Resource Guide for Parents. outline.org.nz/parents
- Be There. be-there.nz

For healthcare professionals

- PATHA – provides valuable resources and a network of health providers working in this field. patha.nz
- Healthpoint – Auckland's "Hauora Tāhine" page is a useful source of information for both clinicians and the community. Resources available to download include hormone and puberty blocker consent forms, maintenance hormone monitoring, self-injection guide, and coping with gender dysphoria and fertility information. https://bit.ly/2Ezxyn2
- Oliphant J, Veale J, Macdonald J, et al. *Guidelines for Gender Affirming Healthcare for Gender Diverse and Transgender Children, Young People and Adults in Aotearoa New Zealand*. Hamilton, NZ: Transgender Health Research Lab, University of Waikato; 2018. https://bit.ly/3mQ3Vz1
- *Safe Transition: Minimising the risk of pain and injury associated with binding, corsets, changes to gait and posture, and surgery*. Willis Street Physiotherapy; March 2019. https://bit.ly/3i1Is2y
- Ministry of Health. Updates from the Gender affirming (genital) surgery service. September 2020. https://bit.ly/33UHboU
- Ministry of Health. Resources for transgender New Zealanders. September 2020. https://bit.ly/2EA6ILA
- Gender Minorities Aotearoa. Trans 101: Glossary of trans words and how to use them. https://bit.ly/33VYupM