Transgender Health

A/Prof Katie Wynne

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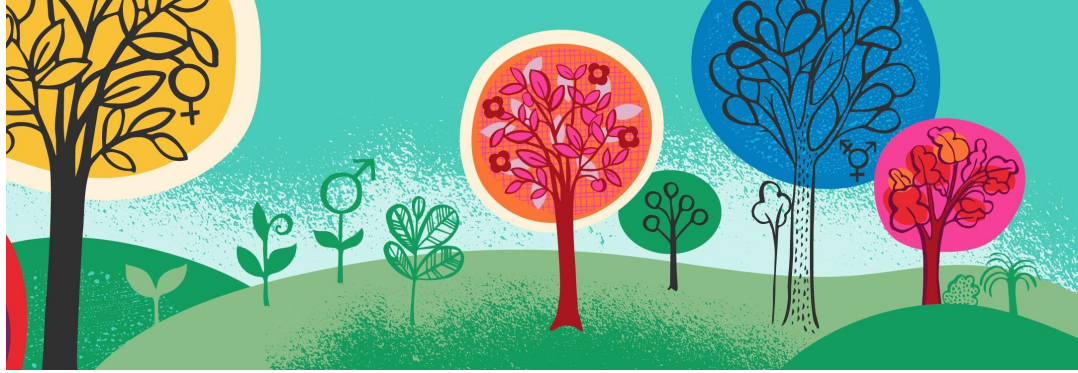
Children, Young People & Families



Gender diversity: transgender, gender diverse and non-binary people

- Society has become more aware and accepting of gender diversity
- Estimates in young people have risen from <0.01% to 2.3%
- Increasingly recognized by healthcare as part of human diversity
- Gender diverse people are vulnerable due to stigma and minority stress
  - Risk of family rejection
  - Social exclusion
  - Reduced healthcare access
  - Bullying and assault
- Psychological distress, suicidal ideation/attempts and self-harm x3-5
- All-cause mortality x3

3 x

all-cause mortality

Writing Themselves In 4: The Health and Wellbeing of LGBTQA+ Young People in Australia (Hill et al. February 2021).

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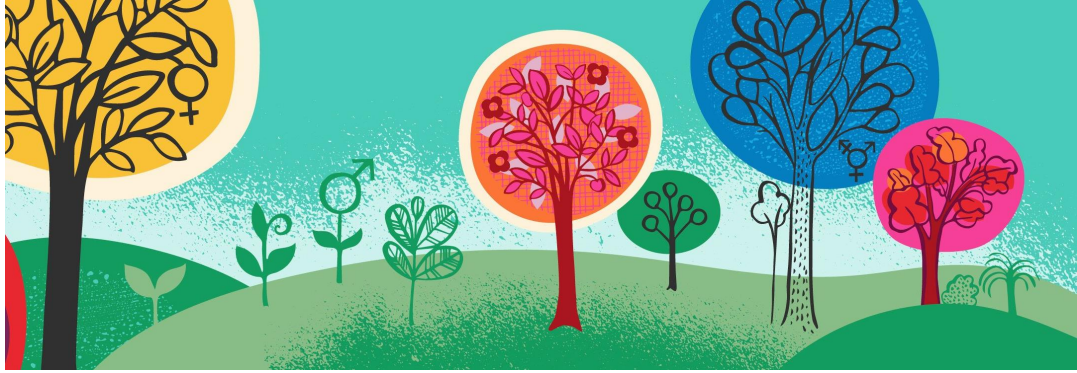

Gender-affirming care

- Defined by the WHO as '*any single or combination of social, psychological, behavioural or medical interventions designed to support and affirm an individual's gender identity*'

- RACP (2020) states clinical care needs to be "n*on-judgemental, supportive and welcoming for children, adolescents and their families*" "*withholding or limiting access to care and treatment would be unethical and would have serious impacts on the health and wellbeing of young people*."

Goals

- **Improve health outcomes**
- **Improve social outcomes**
- **Alleviate gender incongruence**

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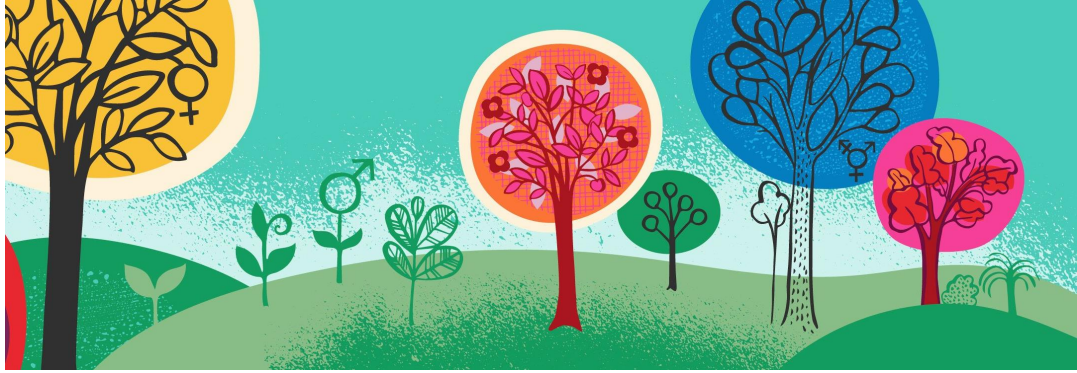
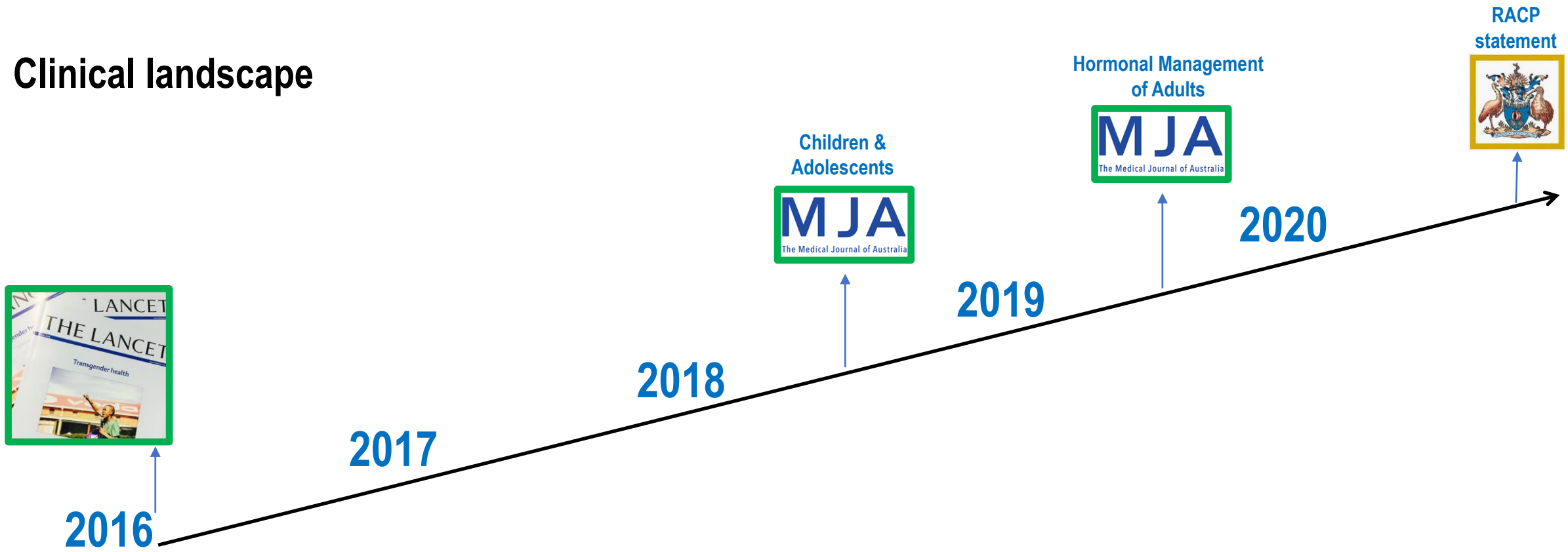


Clinical landscape



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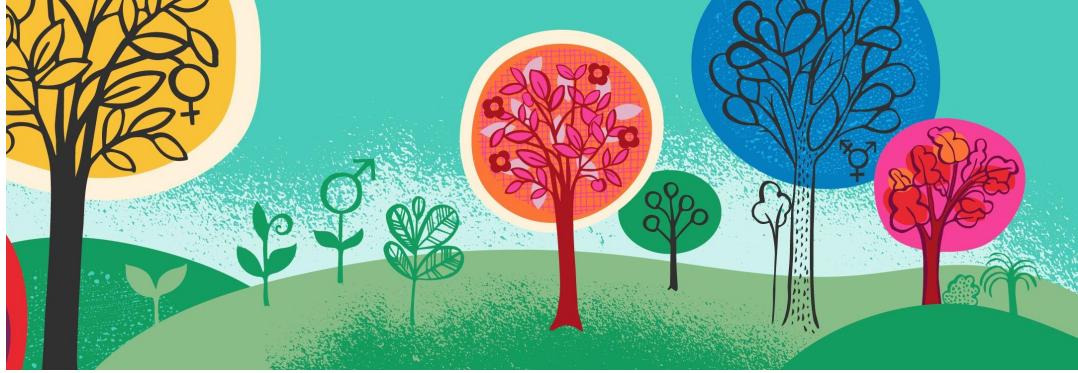
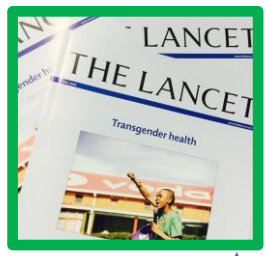


Clinical landscape

2016

Hunter Gender Alliance



CNC clinic

First Australian TGD pathway

HUNTER & NEW ENGLAND HealthPathways

2017

Improving timely access to young people's TGD health services

INNOVATION SCHOLARSHIPS

HNE HEALTH EXCELLENCE AWARDS *Finalist*

hnekidshealth.nsw.gov.au/gender

2018

Adult Endocrinology reconfigured

Education in HNE. Aust J Primary Care

Children & Adolescents

MJA The Medical Journal of Australia

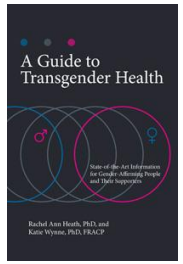
2019

Paediatric Endocrinology reconfigured

Our Lives Conference
Arora Grant / UoN
500+ participants

Hormonal Management of Adults

MJA The Medical Journal of Australia



2020

TRANSFORM NEWY

RACP statement

AUSPATH

- 5 views per day, 2 hours per view
- GP to referral 231 days → 14 days
- Referral to clinic 181 days → 83 days

Gold Standard?

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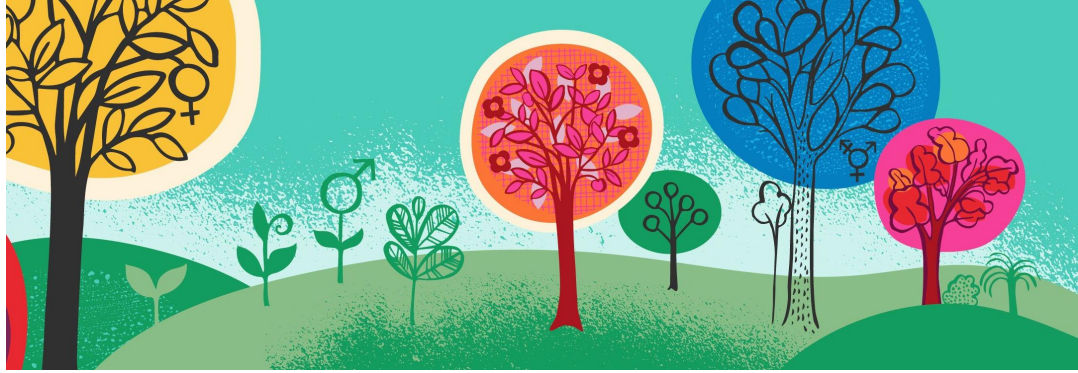

Legal complexities: <18 years

Re Jamie — 2013

- Overturned existing law that required Family Court authority for puberty blockers <18 years
- Providing the parents and young person's medical practitioner in agreement

Re Kelvin — 2017

- Enabled young people to commence gender-affirming hormones <18 years without Family court authorisation
- No comment on what to do if parents were in dispute. The effect was to bring hormonal therapy within parental consent, and allow the individual to consent if deemed '*Gillick*-competent'

Re Imogen — 2020

- Young people can only receive hormone treatment when there is no dispute between parents, the physician and young person regarding the diagnosis, treatment and *Gillick*-competence.
- Therefore, physicians must ascertain if both parents consent, even if the individual has capacity, and if there is not consensus the Family Court must provide authority.

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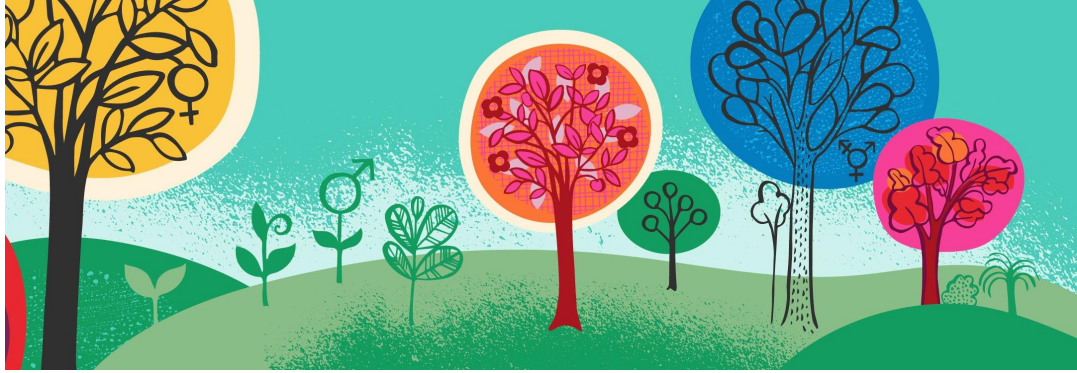
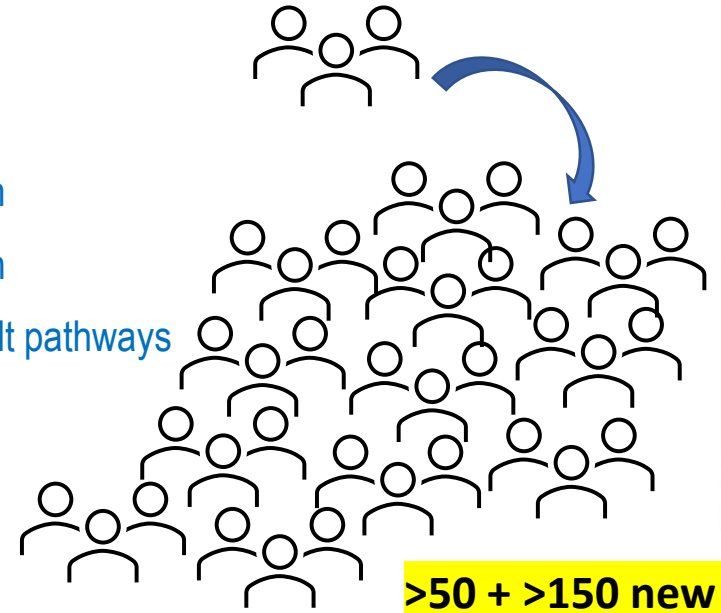
NSW GOVERNMENT

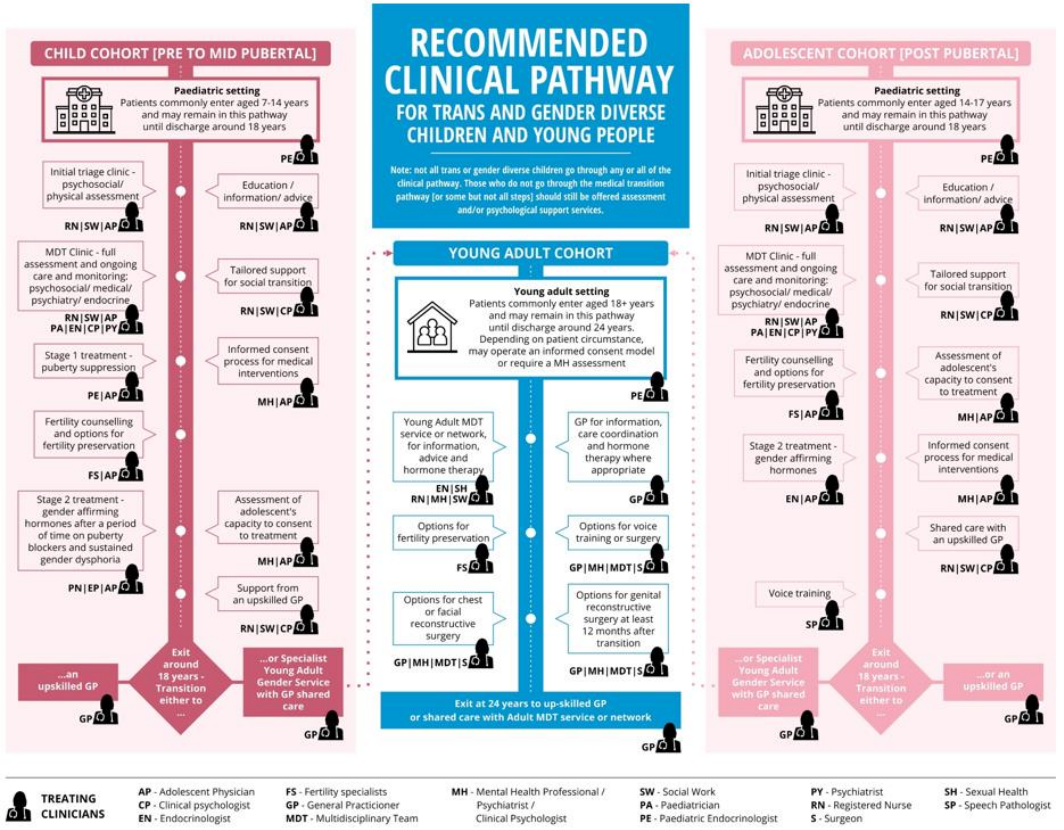


NSW Ministry of Health

- National and International guidelines endorsed by recognised professional associations
- In NSW has inequity of access, a poorly integrated system and multiple service gaps
- Increasing referrals to services

- Funded core services in the public system
- A service model endorsed by NSW Health
- Recommended child, adolescent and adult pathways
- Multidisciplinary team as gold standard





>50 + >150 new referrals/year

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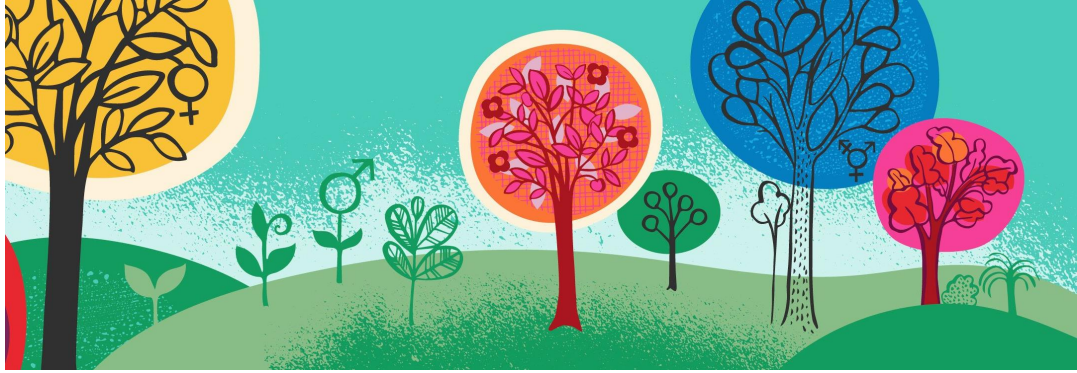
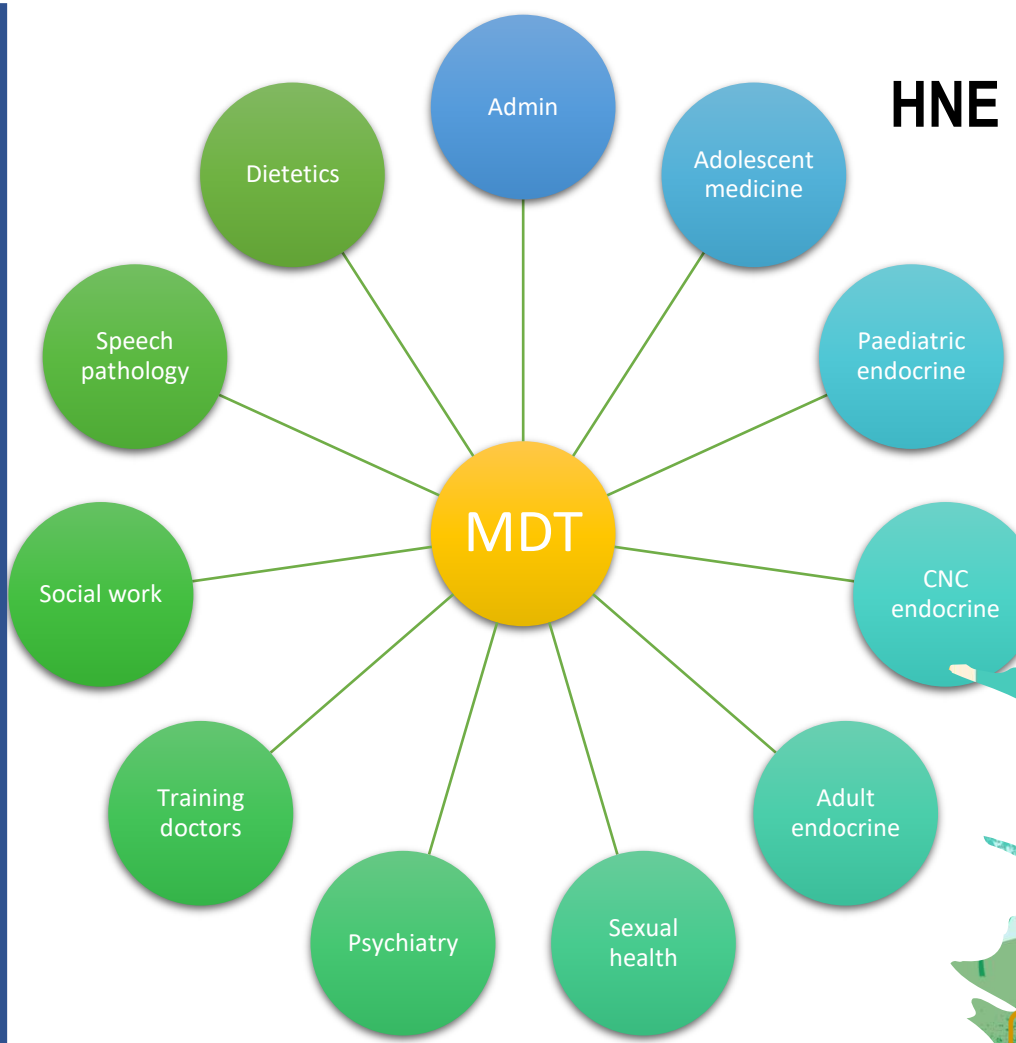


HNE 2021: from clinic to service

Maple Leaf House



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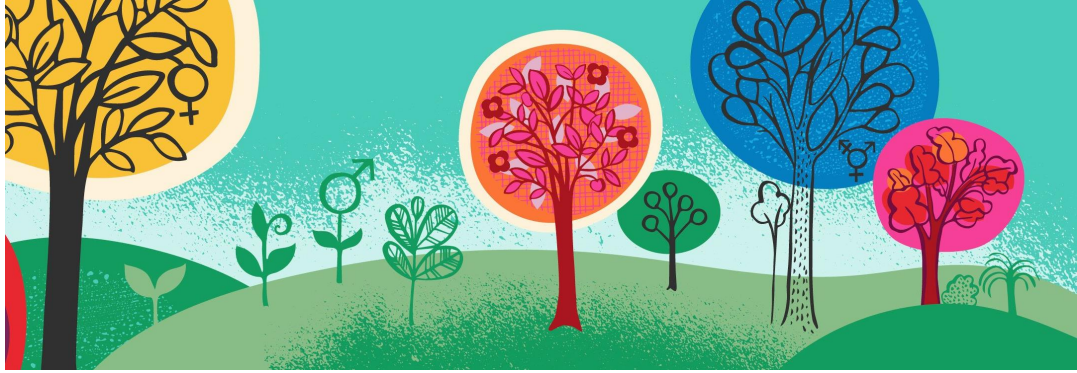
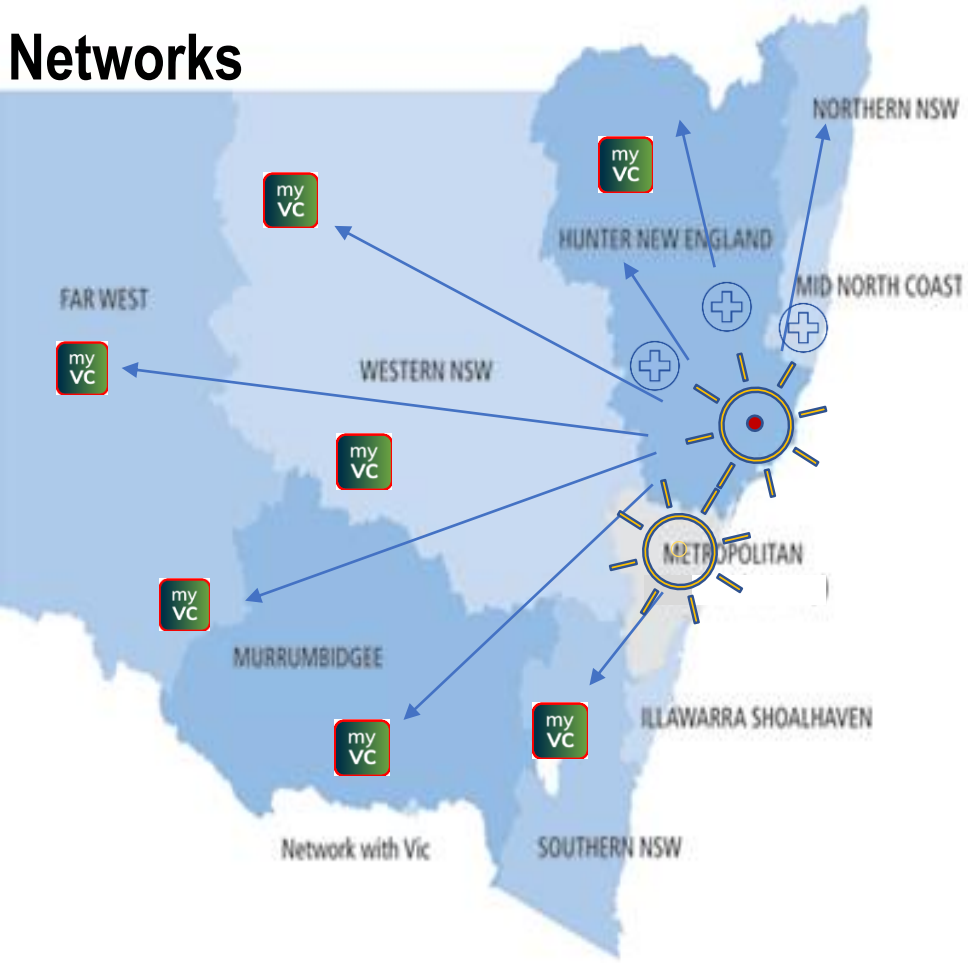


Networks



Professional bodies

AUS PATH | WPATH

RACP

esa endocrine society of australia

society for mental health research

APS Australian Psychological Society

Community organisations

twenty10

TRANSCEND

acon HERE FOR HEALTH

Parents of Gender Diverse Children

Clinical services

Perth Children's Hospital

Women's & Children's Hospital

The Royal Children's Hospital Melbourne

Children's Health Queensland Hospital and Health Service

NSW GOVERNMENT Health

headspace

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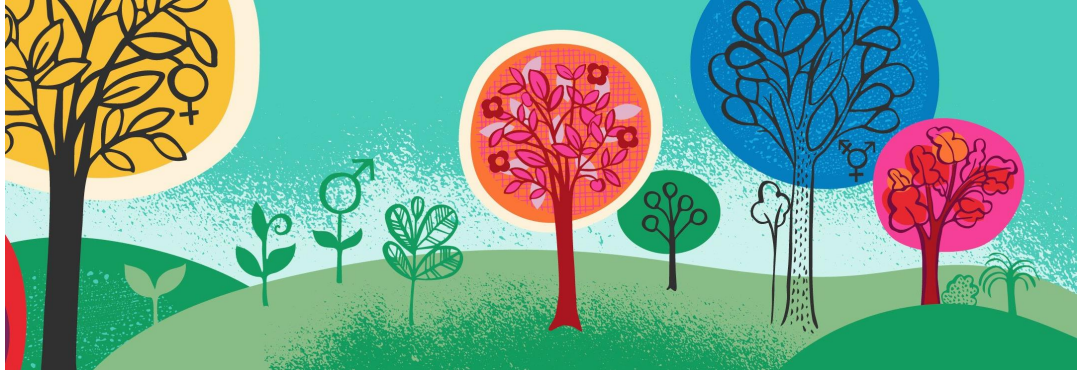
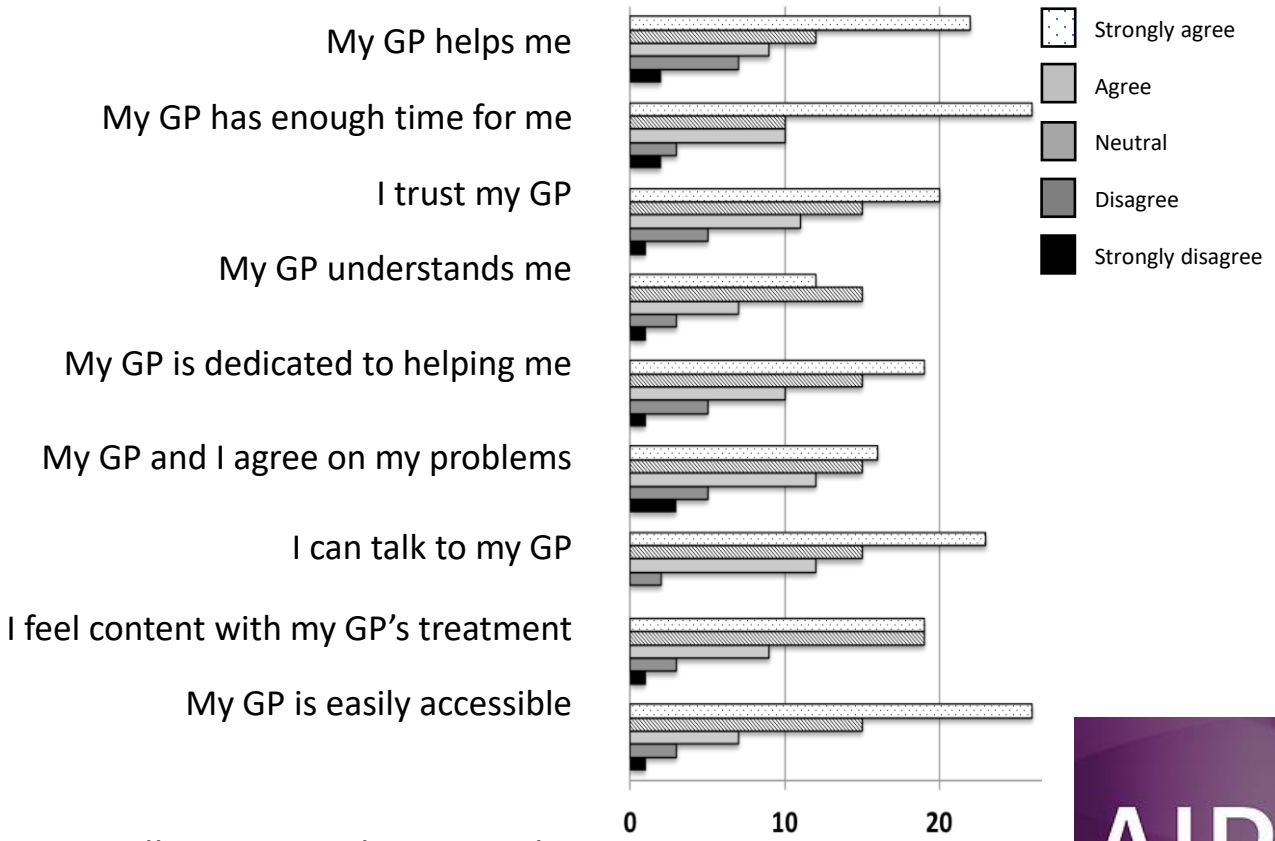


Hunter Healthcare Experience

n=76
7-77 years
90.6% GP

Satisfaction index **36/45**



A good patient-doctor relationship is associated with better treatment adherence and improved outcomes. The **constructive GP relationship** provides a **key platform to deliver care**

Education of the medical profession to facilitate delivery of transgender healthcare in an Australian health district
Maansi Arora, Kaete Walker, Judy Luu, Robbert J. Duvivier MD, PhD, Tinashe Dune MPH, PhD, Katie Wynne MBBS, PhD; Australian Journal of Primary Health *in press 2019*

AJPH

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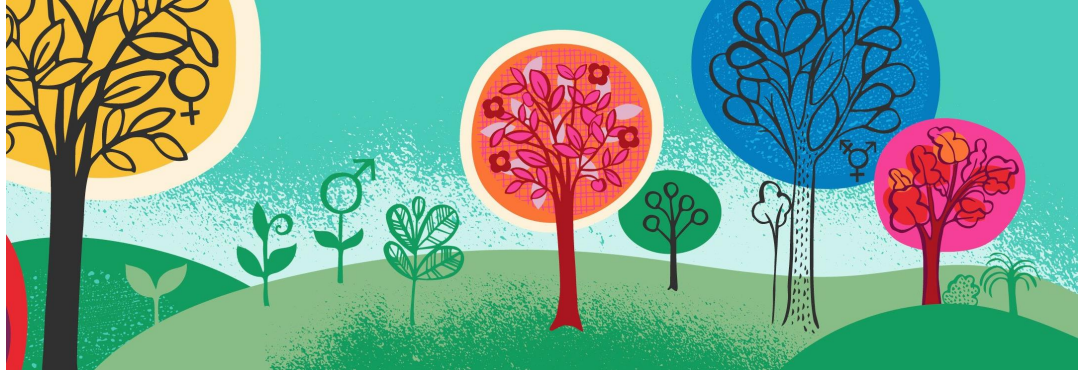

01 **Name, pronoun and gender identity**

Screen MH red flags
Self-medicating

02 **Referral to MLH**

Prue Lopez or Rowan Seckold
Adolescent physician
Katie Wynne or Judy Luu

03 **Management**

Norethisterone for puberty suppression > Tanner 3
Bridging hormones using informed consent 18-24 years

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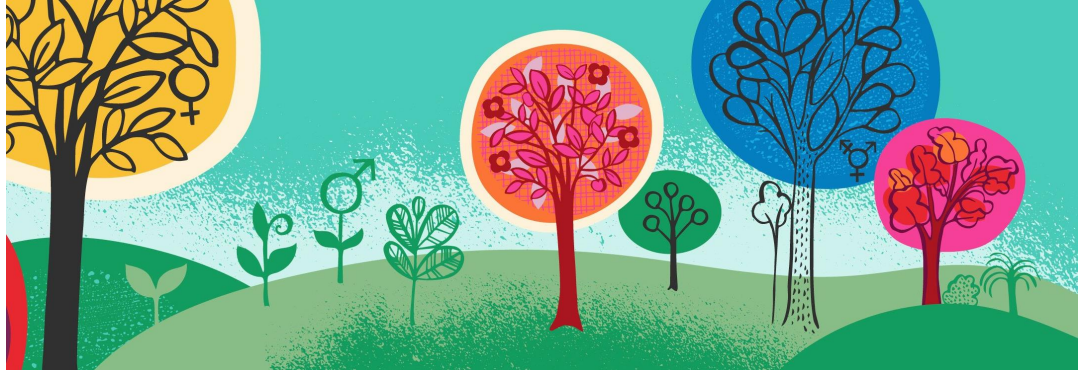

- Clinical decision-making for young people **<18 years** requires expert specialist assessment and support.
- Family Court is not needed if the child, parents/guardians, and treating clinicians agree.
- The treating medical practitioner must seek and document written consent of all parents/guardians and child (if Gillick competent).
- **Family Court is needed** in the case of dispute about Gillick competence, diagnosis or proposed treatment

- For a child **<16 years** clinicians must also consider if the intervention is a 'special medical treatment': *a intended or reasonably likely to render the child permanently infertile, unless the treatment is administered to treat a life-threatening condition'.*
- If so, consent of the NSW Civil and Administrative Tribunal - **NCAT is required.**

Children and family members can be referred to free specialist legal advice at the Inner City Legal Centre Trans and Gender Diverse Legal

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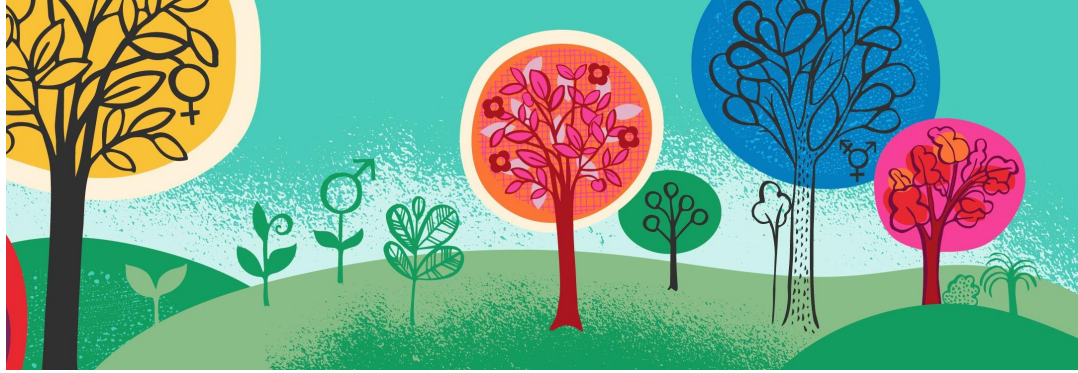
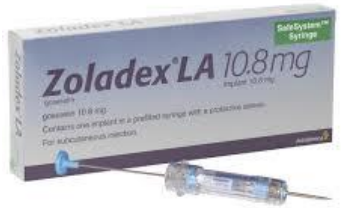
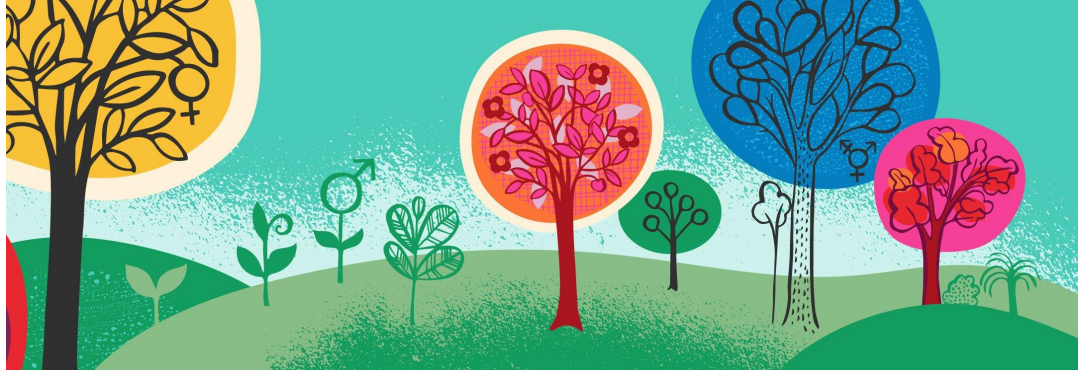


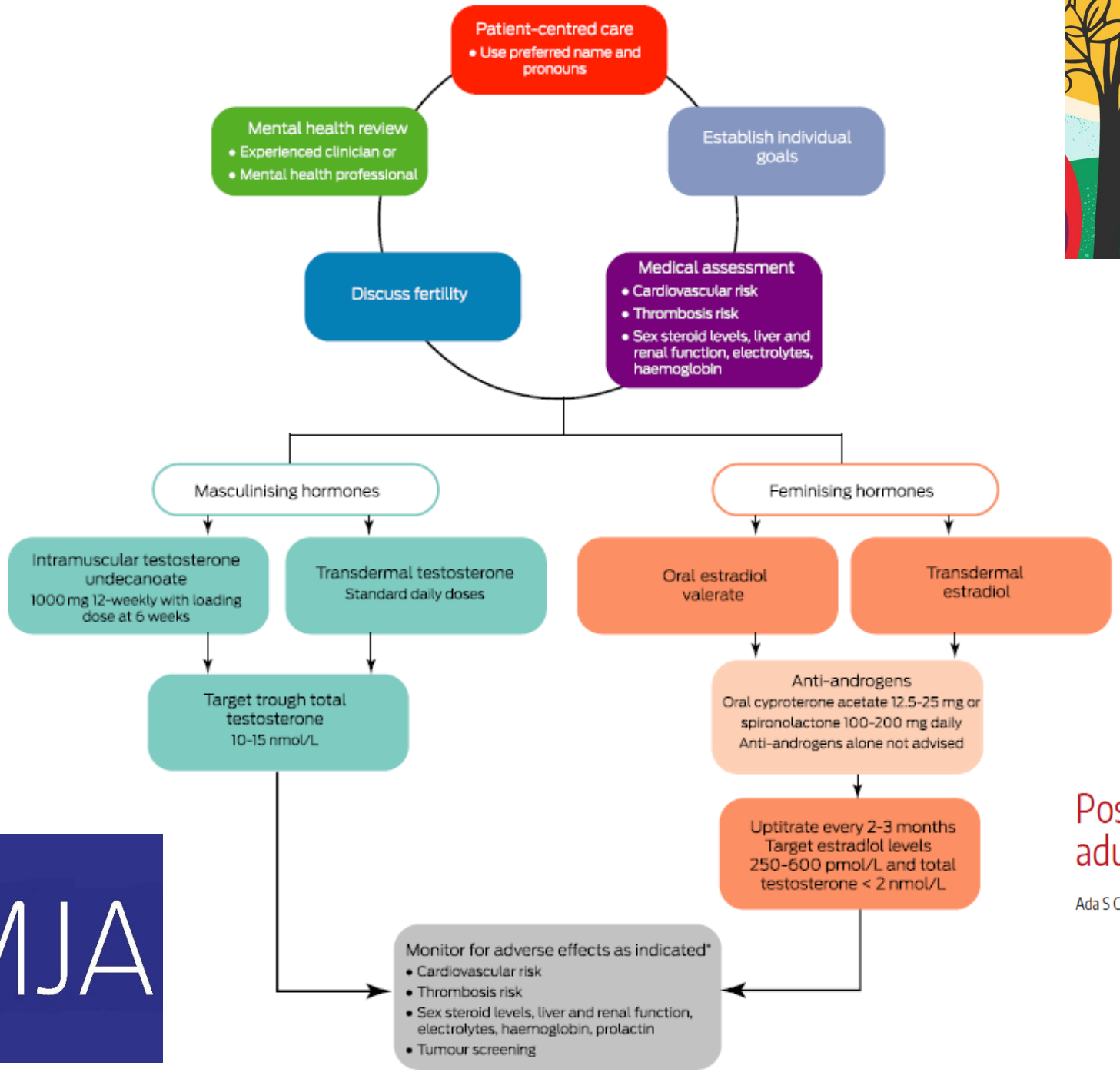
- Support of children and adolescent's gender identity by family and community is associated with better mental health[1,2]
- GnRH treatment has been offered since the 1990's, is supported by a moderate level of evidence and is recommended in international evidence-based and consensus-based guidelines[3]
- Young people who have gender dysphoria as children, continue to identify as other gender in adolescence, and who show increasing distress about unwanted pubertal body changes are **likely** to continue to experience gender incongruence through adolescence and adulthood[3,4]
- Puberty suppression prescribed according to guidelines is associated with good or improved mental health and reduced suicidality in transgender adolescents[5-10]



"There is now moderate evidence supporting the use of puberty suppression in earlier adolescence and the use of estrogen or testosterone in later adolescence, for adolescents who have gender dysphoria which is worsening in early adolescence who strongly wish for and request these treatments. The evidence is strong and unequivocal for the physical effects of pausing puberty. The evidence is moderate for short and medium term improvements in gender dysphoria, mental health and quality of life. The evidence is limited beyond a 7 year follow-up period into young adulthood. **This is acceptable, because the treatment is used when distress and risks (on no treatment) are so grave…"**[11]

1. Strauss 2017
2. Russell 2018
3. Hembree 2017
4. Temple Newhook 2018
5. De Vries 2011
6. De Vries 2014
7. Cost 2015
8. Allen 2019
9. Turban 2020
10. Achille 2020
11. Moore 2021





MJA

> 18 years

Informed consent

Physical changes
Time course
Potential adverse effects
Irreversible nature of some changes

Soc 7 WPATH 2011

Position statement on the hormonal management of adult transgender and gender diverse individuals

Ada S Cheung[1], Katie Wynne[2], Jaco Erasmus[3], Sally Murray[4], Jeffrey D Zajac[1]

Med J Aust 2019; 211 (3):127-133

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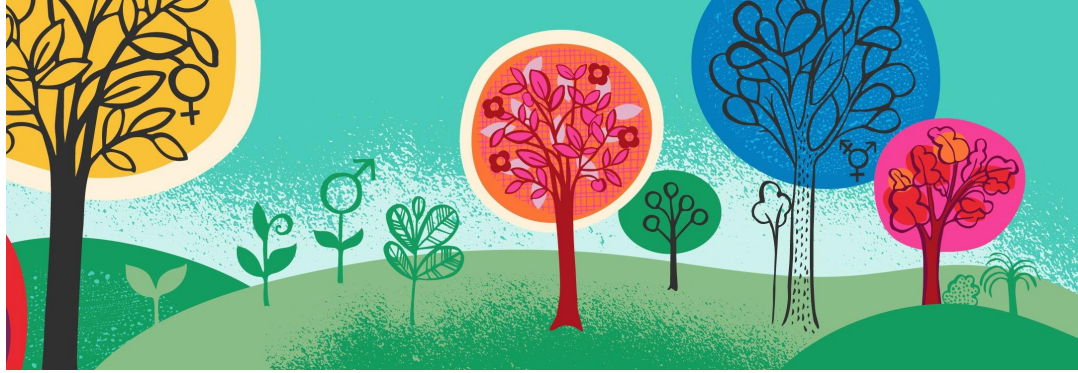

Androgen Blockers

- **Spironolactone** 100mg od (50-100mg): aldosterone antagonist that also acts at the testosterone receptor, and weak estrogen-like activity. Risks: hyperkalaemia, rarely GI bleed.[1]
- **Cyproterone Acetate** 12.5mg od (12.5-25mg): progestin→gonadotrophins reduces testosterone synthesis, testosterone receptor antagonist. Risks: mood, LFTs, rarely meningioma[2]
- **GnRH analogues** (Zoladex 10.8mg 12-weekly, 3.6mg monthly)

Estrogen at 6-12 weeks

- Estradiol **oral** tablets start 1-2mg, up to 1-8mg (Progynova)
- Estradiol **gel** start 1mg, up to 1-5mg (Sandrena / Estragel)
- Estradiol **patch** start 25-50mcg, up to 5[illegible]0mcg/d (Estradot / Estraderm)

17*b* estradiol

1. Gulmez BJCP 2008 *(RRx13, >55 years on 100mg+)*
2. *Gill BJCP 2011 (RRx11, 60/100,000 person-years)*

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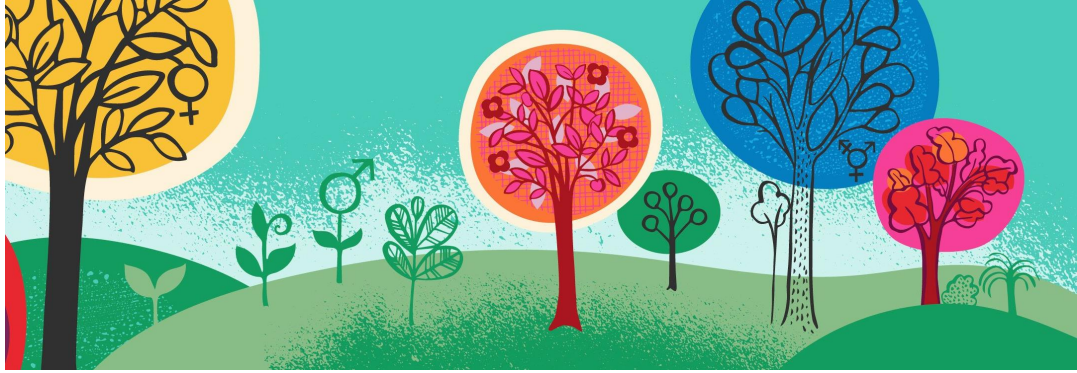

Preferred first-line feminising estradiol preparations	
Estradiol valerate (oral)	25 (71.4%)
Estradiol patch (transdermal)	3 (8.6%)
Other (depends on age of patient; transdermal in older, oral in younger)	1 (2.9%)
No response	6 (17.1%)
Do you use anti-androgen treatments in addition to estradiol therapy?	
Almost always	20 (57.1%)
Often	6 (17.1%)
Sometimes	2 (5.7%)
Only if I can't suppress the testosterone on estradiol alone	1 (2.9%)
No response	6 (17.1%)
Anti-androgen medications used (more than one option could be selected)	
Spironolactone	27 (93.1%)
Cyproterone acetate	28 (96.6%)
5-alpha reductase inhibitors (finasteride, dutasteride)	10 (34.5%)
Bicalutamide	1 (3.5%)
No response	6 (17.1%)

Anonymous survey of prescribing given to ANZPATH members 2017.[1]
N=43 (GP (62%), Endo (20%), Sex Health (17%)

Targets

- No data on gradual vs. rapid titration
- Induction of puberty
- Gradual up-titration every 2-3 months[2]
- Estradiol 250-600pmol/l[2,3]
- Testosterone <2nmol/l and/or symptoms[3]
- Timing: 4 hours post-dose or 48 post-dose for patches
- Adjust according to the patient's biochemical response
- Menopause estradiol 100-250pmol/l?

1. Bretherton IMJ 2018
2. Hembree JCEM 2017
3. Rahman JCEM 2019

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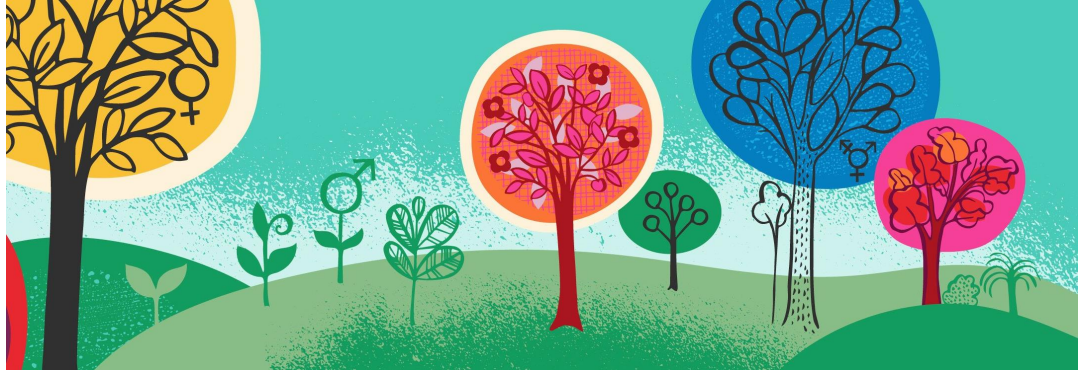

Testosterone

'Androgen deficiency due to an established testicular disorder'. In *consultation* with a paediatrician, endocrinologist, urologist or sex health physician. Any gender marker.

- Testosterone undecanoate 1000mg im, 12-(9-15) weekly, first two doses 6 weeks apart (Reandron)
- Testosterone 1% (50mg/5g) gel (Testogel)
- Testosterone 1% (12.5mg/actuation) gel pump, 1-4 actuations (Testagel)
- Testosterone 2% (23mg/actuation) gel pump 1-2 actuations, (Testavan)
- Testosterone 5% (50mcg/ml) cream, 0.5-2mg (Androforte 5)

Non-PBS

- *Testosterone enantate (Primoteston) 250mg im 2-4 weeks or 75-80mg (50-100mg) sc weekly*[1] *Testosterone esters (Sustanon) – 250mg im 3-6 weeks*

1. Spratt JCEM 2017
2. Cheung Med J Aust 2019

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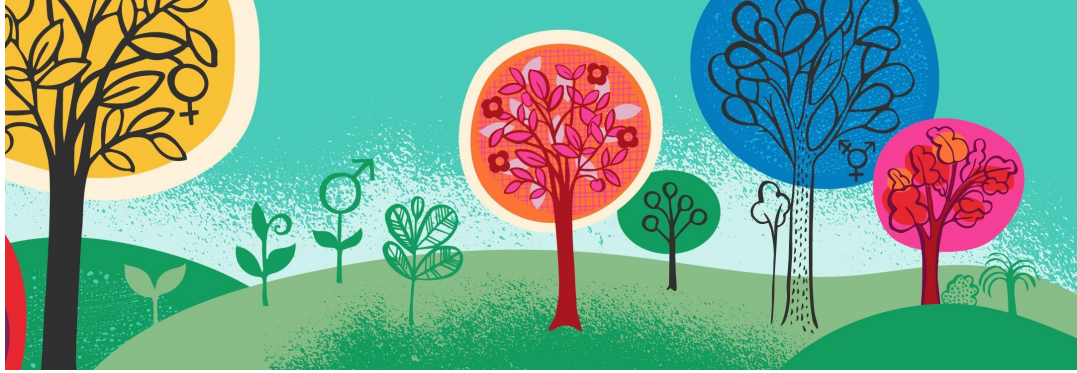
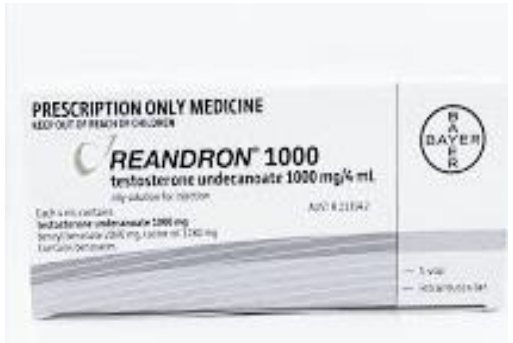


Preferred first-line masculinising testosterone preparations	
Testosterone undecanoate (intramuscular)	17 (48.6%)
Testosterone enantate (intramuscular)*	11 (31.4%)
Testosterone gel/cream (transdermal)	5 (14.3%)
No response	1 (3.0%)

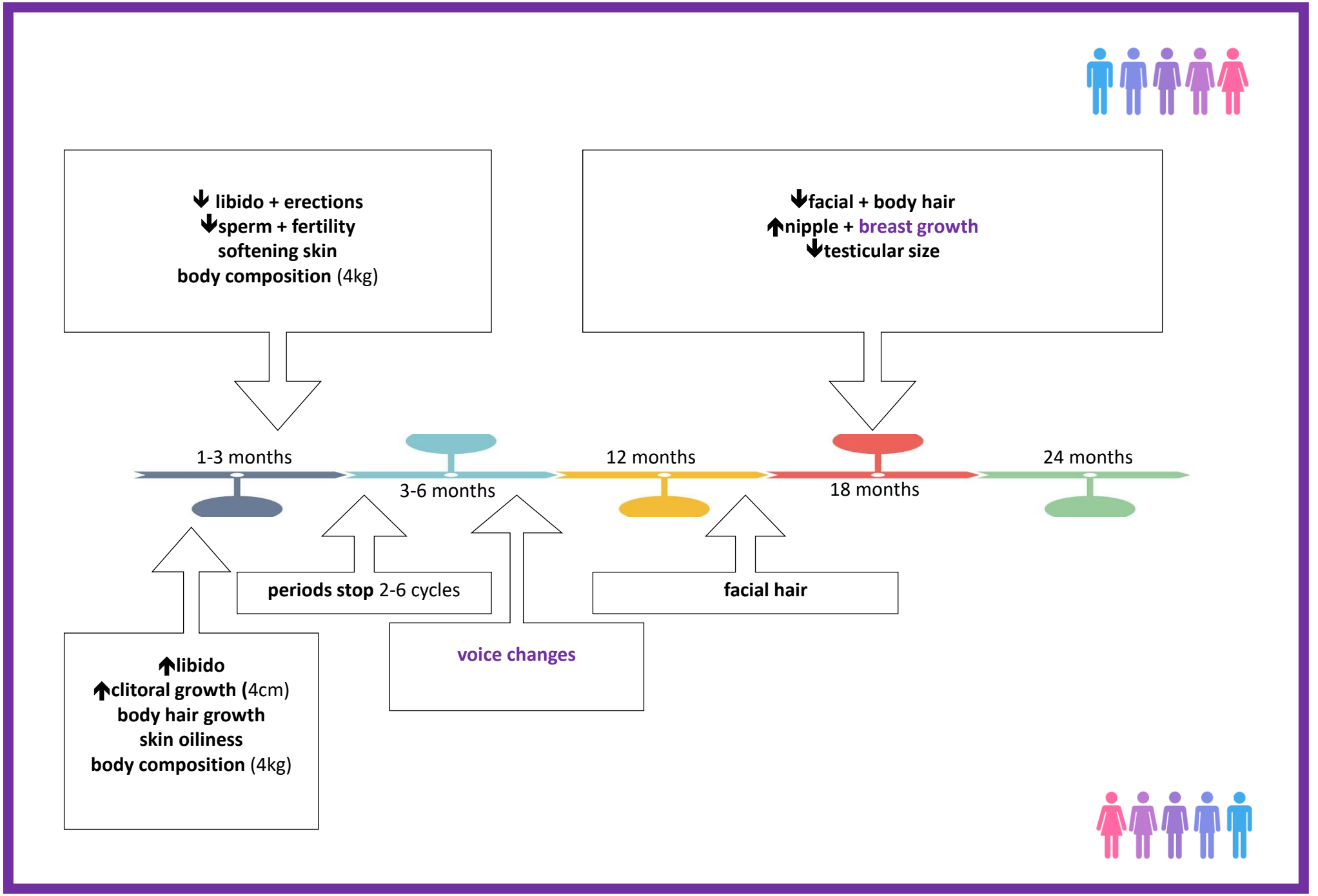
Anonymous health provider survey[1]



Biochemical target

- Booster initiation (first two 6 weeks apart) or start with 12-weekly if patient choice.
- Trough testosterone 10-15nmol/l
- Peak testosterone 15-20nmol/l

1. Bretherton IMJ 2018
2. Wittert Andrology 2016


↓ libido + erections
↓sperm + fertility
softening skin
body composition (4kg)
↓facial + body hair
↑nipple + breast growth
↓testicular size
1-3 months
3-6 months
12 months
18 months
24 months
periods stop 2-6 cycles
facial hair
↑libido
↑clitoral growth (4cm)
body hair growth
skin oiliness
body composition (4kg)
voice changes

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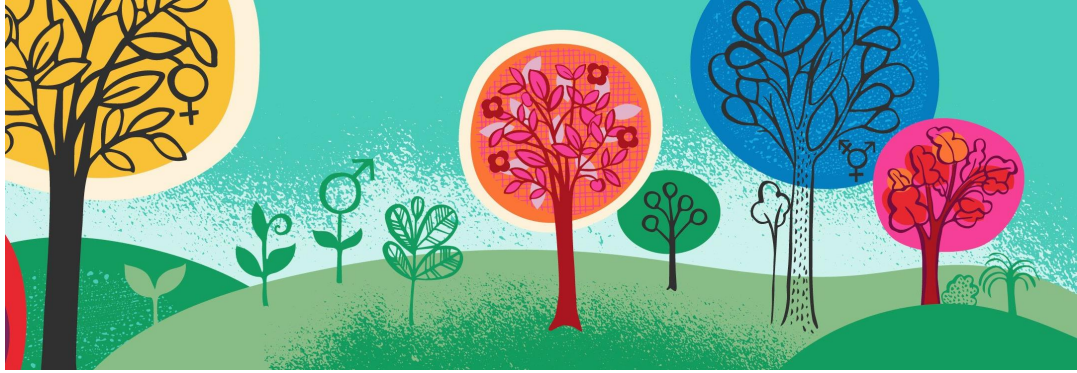

Gender diversity: transgender, gender diverse and non-binary people

In summary…… Hormonal transition is safe and effective.

A systematic review of all studies to 2014. showed no increased risk of cancer or early mortality.[1]

For >18 years, can be delivered in **primary care** with specialist referral for difficult cases[2]

Further large cohorts:

- ENIGI, Europe
- STRONG, US
- Veteran's Health, US
- **Trans 20, Australia[3]**

Australian Position Statements for children, adolescents[4] and adults[5]

A National Research Consortium for TGD young people has been established.

1. Weinand JTE 2015
2. Arora AJPH *in press* 2019
3. Tollit BMJ Open 2019
4. Telfer Med J Aust 2018
5. Cheung Med J Aust 2019

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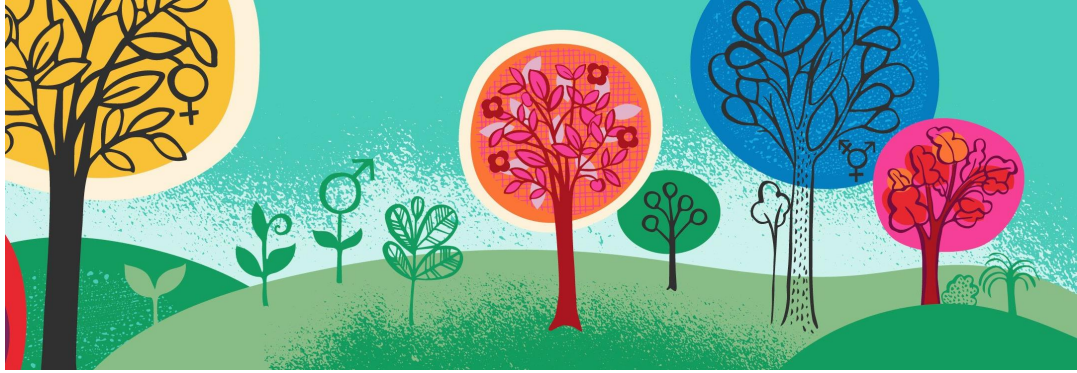
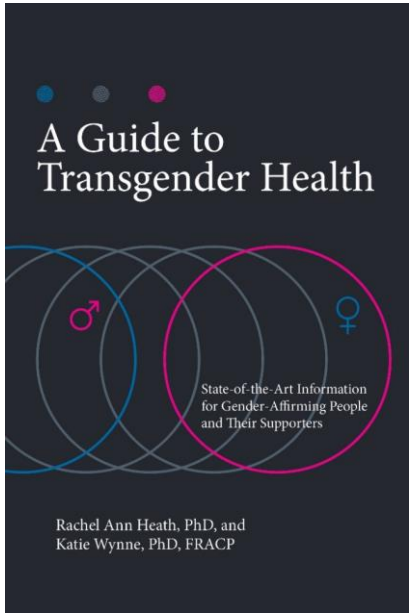


https://www.gires.org.uk/e-learning/

- for GP's
- caring for gender non-conforming young people
- transgender awareness for employers and service providers
- promoting trans equality in further education

www.lgbthealtheducation.org/resources/in/transgender-health/

- Gender Affirmative Health Care
- Cross Sex Hormone Therapy
- Surgical Gender Affirmation
- Primary and Preventative Care
- Caring for Gender Non-conforming Youth in Pediatrics and Primary Care



Heath and Wynne (2019) available at amazon.com.au