

Survey responses to the independent review of the evidence base and advice regarding policy options for the use of puberty suppression and gender affirming hormones for children and adolescents with gender dysphoria in Queensland's public hospital system

### **What range of hormone treatments do you understand are available for gender dysphoria in children and adolescents?**

The available hormone treatments for gender dysphoria in children and adolescents are typically divided into two main stages:

- Stage 1: Puberty blockers (GnRH analogues) – These medications, such as Leuprorelin (Lupron), Gosrelin, and Triptorelin, are used to suppress or halt the development of puberty. Their stated purpose is to provide time for further exploration of gender identity without the distress of ongoing pubertal changes. However, these are prescribed off-label and have never been licensed specifically for treating gender dysphoria in any country. The evidence base for their use is weak, and claims of full reversibility are not substantiated by robust data.
- Stage 2: Cross-sex hormones (masculinising/feminising hormones) – These include oestrogen for boys and testosterone for girls, typically considered from age 16 or later. For girls, testosterone is administered via injection or transdermal preparations, and for boys, oestrogen may be combined with anti-androgens. These treatments are associated with significant, often irreversible, physiological changes.

The protocol sequence for girls often includes testosterone and, in some cases, surgical interventions such as mastectomy. Notably, most foundational studies informing these protocols were based on predominantly male cohorts, and there is a historic lack of female-specific outcome data.

### **Factors for no medication or hormone treatments?**

There are several evidence-based factors supporting the decision not to pursue medication or hormone treatments:

- Resolution without intervention: A significant proportion of youths with gender dysphoria will see their distress resolve without medical or social transition. Longitudinal data, including a German insurance database and Dutch studies, show that over 70% of adolescent females no longer had a diagnosis of gender dysphoria five years later.

- **Heterogeneous presentations:** The recent surge in adolescent referrals is dominated by teenage girls, many of whom do not have a prior childhood history of gender dysphoria. These presentations are often complex, with high rates of comorbid mental health and neurodevelopmental conditions.
- **Lack of predictive power:** There is no objective measure for diagnosing gender dysphoria, nor any reliable way to predict which children will have enduring trans identities.
- **Risks of medical pathway:** Medical interventions are invasive, carry irreversible risks, and are based on poor-quality evidence. Children and adolescents are unlikely to fully comprehend the lifelong consequences.
- **Influence of social factors:** Many girls self-diagnose after exposure to online resources, and there is concern about social contagion in peer groups.
- **Psychotherapy as an alternative:** Psychotherapy is a non-invasive, evidence-based alternative with no evidence of harm and may be more effective in addressing underlying distress.

### **Factors for stage 1 hormone treatment?**

The evidence does not support robust, evidence-based criteria for stage 1 hormone treatment:

- **Experimental nature:** Puberty blockers are prescribed off-label and have not been licensed for gender dysphoria. Their use is experimental, with no requirement for long-term follow-up or safety monitoring.
- **Questionable reversibility:** Claims that puberty blockers are fully reversible are not supported by primary evidence. Most studies cited are either not directly relevant or lack robust data on reversibility, especially after prolonged use.
- **Female-specific concerns:** The applicability of early research (based on mostly male cohorts) to the current predominantly female adolescent population is unproven. The Cass Review found no reasonable, proven rationale for using puberty blockers in females.
- **Gateway to further treatment:** Data show that nearly all children who start puberty blockers proceed to cross-sex hormones, indicating that blockers are not a neutral “pause button” but rather a gateway to irreversible interventions.
- **Risks:** Potential risks include impacts on bone mineral density, neurocognitive and psychosocial development, and reproductive maturation. There is no evidence that blockers provide “time to think” or improve mental health outcomes.

### **Factors for stage 2 hormone treatment?**

There is no robust evidence supporting stage 2 hormone treatments in children and adolescents, and significant risks have been documented:

- **Irreversible effects:** These treatments result in permanent physiological changes, including infertility/sterility and sexual dysfunction.
- **Female-specific risks:** For girls, testosterone can cause reproductive organ atrophy, persistent pelvic pain, and may necessitate hysterectomy. The effect on fertility is uncertain, and techniques like ovarian tissue cryopreservation have not been proven effective in this context.

- Lack of data: There is a notable absence of published research on sexual function outcomes in females who undergo paediatric medical transition. The long-term effects on growth, cardiovascular health, and bone density are unknown.
- High risk of regret: The percentage of individuals who detransition is unknown due to lack of long-term data, but reports are increasing.

## **Factors for other treatment options?**

Other treatment options include:

- Psychotherapy: Both the Cass and HHS reviews recommend evidence-based psychological and psychopharmacological approaches for managing distress and co-occurring conditions. Psychotherapy is non-invasive and effective for addressing underlying mental health issues.
- Holistic assessment: A comprehensive, individualised care plan should include screening for neurodevelopmental and mental health conditions, particularly given the high rates of comorbidity in adolescent girls presenting for gender dysphoria.
- Social transition: While considered reversible, social transition is not neutral and may reinforce a gender identity, increasing the likelihood of pursuing medical interventions. For girls, practices like chest binding can cause irreversible damage and exacerbate distress.

## **Concerns for stage 1 hormone treatment?**

There are substantial concerns regarding stage 1 hormone treatment:

- Developmental risks: Puberty blockers affect bone mineral density, skeletal development, neurocognitive and psychosocial development, and reproductive maturation.
- Puberty blockers have not been proven to resolve “gender dysphoria” as symptoms persist during treatment.
- Puberty Blockers are known to cause/worsen psychiatric events and thus there is concern about administering such products to children/adolescents who are already experiencing psychological/psychiatric distress.
- Irreversibility: The claim of full reversibility is unproven, especially after prolonged use.
- Female-specific data: Risks for girls include impaired bone health and reproductive development. Foundational studies were based on small, highly selected samples and are not generalisable to today’s predominantly female cohort. When administered to adolescent girls during puberty they are forced into early menopause as a result and experience menopausal symptoms including hot flashes, joint/body pain, brain fog, anxiety.
- Mental health outcomes: Studies show that gender dysphoria persists through pubertal suppression, and there is no evidence of improved mental health outcomes.

## **Concerns for stage 2 hormone treatment?**

Major concerns for stage 2 hormone treatment include:

- Permanent infertility and sexual dysfunction: These effects are particularly concerning for adolescent girls, who may enter early menopause as a result.
- Cardiovascular and metabolic risks: There is an increased risk of heart attacks and strokes in females taking testosterone.
- Lack of long-term data: There is insufficient data on the long-term effects of testosterone on the female reproductive system, sexual function, and overall health.
- Increasing reports of detransition and regret: The lack of follow-up studies means the true rate of regret is unknown, but anecdotal evidence suggests it is rising.

## **What are they? (Concerns)**

The specific concerns include:

- For stage 1: Impaired bone density, neurocognitive and psychosocial development, reproductive maturation, the lack of evidence for reversibility and worsening psychiatric events.
- For stage 2: Infertility/sterility, sexual dysfunction, impaired bone density, adverse cognitive impacts, cardiovascular disease, metabolic disorders, psychiatric disorders, surgical complications, and regret. For females, additional risks include reproductive organ atrophy, pelvic pain, and unknown effects on fertility and pregnancy.

## **Do you have any other concerns about the impacts of stage 1 and/or stage 2 hormone treatments for children and adolescents in the short, medium and/or long term?**

Yes. There is a profound lack of understanding regarding the side effects, and in particular long-term impacts of these interventions, especially for adolescent girls. Most girls started on puberty blockers proceed to cross-sex hormones, with no evidence that blockers provide time to reconsider. The experimental nature of these treatments, the lack of objective pathology, and the risk of mortality are serious concerns. Furthermore, no adolescent girl should be subjected to early menopause or permanent sterility as a treatment for psychological distress. The disproportionate impact on girls, combined with the lack of robust data, is ethically indefensible.

## **How much information about the short, medium and/or long-term risks and/or benefits of stage 1 and stage 2 hormone treatment do you think a treating team should provide to a child or adolescent (and/or their parent or carer) before commencing treatment?**

Treating teams must provide full and transparent disclosure of all known and unknown risks, benefits, and uncertainties, including the poor quality of the evidence base and the experimental nature of these treatments. This should include explicit information on the lack of controlled, randomised clinical trials, the irreversible nature of many effects, and the fact that many countries are now restricting these interventions for minors due to mounting evidence of harm. The fact that stage 1 treatments will not resolve “gender dysphoria” and the very high probability of continuing on to stage 2 interventions should be communicated and all references to “time to think”, “pausing puberty” and “safe, efficacious and reversible”

should be removed. For girls, the absence of robust, sex-specific data must be clearly communicated.

**How would a treating team know that a child or adolescent (and/or their parent or carer) has understood the information given to them about those risks and/or benefits?**

Given the profound uncertainties and the developmental limitations of children and adolescents, it is not possible to ensure true informed consent. The Bell v Tavistock ruling and statements by WPATH members confirm that fully informed consent from minors is not achievable, especially when they cannot comprehend the lifelong consequences of loss of sexual function, infertility, and other harms. The lack of robust data further undermines the possibility of meaningful consent, particularly for adolescent girls.

**In your view, are there areas of current practice relating to stage 1 and/or stage 2 hormone treatment for children and adolescents that lack sufficient evidence? If so, what is the impact of the evidence gap on clinical care?**

Yes. All areas of current practice lack sufficient evidence. Both the Cass and HHS reviews describe this as an area of “remarkably weak evidence,” with no good data on long-term outcomes, especially for the new population of adolescent girls. There is a particular lack of sex-specific, long-term data for females. Furthermore, there is no evidence that puberty blockers resolve symptoms of “gender dysphoria”. It should be determined what is the purpose of prescribing such a harmful intervention if not to reduce or cure symptoms of the pathology causing distress.

The evidence gap forces families and clinicians to make decisions in the dark, leading to experimental practice without adequate safeguards. Irreversible harm, including sterility and regret, can occur without proven benefit. Side effects may go unreported due to lack of awareness or poor detection. The lack of sex-specific data is especially acute for girls, who are now the majority of new referrals.

**What questions do you think further research should address?**

Future research should address:

- The long-term safety and efficacy of hormone interventions, with a focus on adolescent females.
- The natural history of gender dysphoria, including which children would resolve without intervention.
- The impact of puberty blockers and cross-sex hormones on fertility, sexual function, cardiovascular health, and neurocognitive development in girls.
- The relationship between rising gender dysphoria and broader youth mental health trends, including social contagion.
- The effectiveness of psychotherapeutic and non-medical interventions, with sex-specific outcomes.
- The rising incidence of detransitioners and how medical practice can help rehabilitate their damaged bodies and psychological distress of transitioning.

**Do you think this area of care has appropriate clinical oversight?**

No. Systematic reviews document a collapse of medical safeguarding and abandonment of standard holistic assessment. In Australia, the “affirmation pathway” dominates, and multidisciplinary teams do not offer alternatives. There is a lack of adherence to even permissive guidelines, and the exceptionalisation of this patient group is concerning.

**Do you think this area of care has appropriate governance oversight?**

No. Guidelines have been implemented without adequate evidence review, funding statements, or conflict of interest disclosures. Professional associations have failed to respond to mounting evidence of harm, and governance is inadequate. Oversight bodies have not addressed the lack of sex-specific data for girls.

**Do you think this area of care has appropriate regulatory oversight?**

No. Puberty blockers and hormone treatments have not undergone robust clinical trials for safety and efficacy, and are prescribed off-label without appropriate safety monitoring. Many side effects are not reported to regulatory authorities, and there are no established safeguards for these experimental interventions.

**Why/why not?**

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**Should additional oversight or regulation be in place? If so, what?**

Yes. Substantial additional oversight is needed. Interventions should be treated as experimental, requiring research ethics oversight, mandatory comprehensive assessment, long-term follow-up, and adverse event monitoring. A National Provider Collaborative should be established, with robust audit processes and leadership from professional bodies. Psychotherapy should be prioritised as first-line care, and all data must be sex-stratified to address the specific needs and risks for girls.

**Is there anything else that you would like to raise about the current evidence base and ethical considerations for the use of stage 1 and stage 2 hormone treatments for children and adolescents?****WHY ADVOCACY FOR GIRLS MATTERS****Disproportionate impact**

Recent years have seen a marked increase in adolescent girls presenting to gender clinics. This is a significant demographic shift, and it is critical that policymakers recognise the unique social, psychological, and developmental factors affecting girls. Girls are not a minority within this cohort; they are now the majority, and their specific vulnerabilities must be foregrounded.

**Safeguarding principles**

Girls are uniquely vulnerable to social pressures, body image issues, and misogynistic

cultural messages. The risk of harm is compounded when irreversible medical interventions are proposed as solutions to distress that may have complex, multifactorial origins. Advocacy for girls means insisting that their wellbeing is not subordinated to ideological or commercial interests, and that all interventions are subject to the highest standards of evidence and ethical scrutiny.

## **ETHICAL IMPERATIVES**

### **The right to an open future**

Every girl has the right to bodily integrity and an open future. Medical interventions that carry irreversible consequences—such as infertility, loss of sexual function, and altered physical development—must only be considered when there is robust evidence of benefit and minimal risk. The current evidence base does not meet this threshold for girls.

### **Informed consent**

True informed consent is not possible without comprehensive, sex-specific information about risks and outcomes. Given the developmental stage of adolescents, and the lack of long-term data for females, it is ethically indefensible to proceed with treatments that may foreclose future options or cause permanent harm.

## **SOCIAL AND CULTURAL PRESSURES**

### **The influence of gender stereotypes**

Girls often experience gender dysphoria in the context of rigid gender norms and stereotypes. Advocacy for girls requires challenging the notion that non-conformity to these stereotypes is pathological or requires medicalisation. Instead, girls should be supported to explore a wide range of identities and expressions without pressure to conform to medical narratives of transition.

### **Social media and peer dynamics**

The surge in adolescent girls seeking gender-related medical interventions coincides with increased exposure to social media and online communities. These platforms can amplify insecurities and promote narrow solutions to complex problems. Policy must address the influence of digital environments on girls' self-concept and decision-making, and ensure that clinical pathways are not shaped by transient social trends.

## **THE NEED FOR SEX-SPECIFIC DATA AND RESEARCH**

### **Evidence gaps**

Current research and clinical protocols are largely extrapolated from studies on males or mixed cohorts, leaving a critical evidence gap regarding the safety and efficacy of hormone therapies for girls. Advocacy for girls demands investment in sex-stratified research, long-term follow-up, and transparent reporting of outcomes—including adverse events and rates of regret or detransition.

### **Accountability in policy development**

Policies must be accountable to the realities of girls' lives. This includes recognising the higher rates of comorbid mental health conditions among girls presenting with gender dysphoria, and ensuring that interventions do not exacerbate existing vulnerabilities. Girls should not be experimental subjects in the absence of clear, sex-specific evidence of benefit.

## RECOMMENDATIONS

- **Prioritise non-medical support:** Psychological and social support should be the first-line response for girls experiencing gender distress. Medical interventions must not be presented as the default or only option.
- **Mandate sex-specific data collection:** All clinical services must collect and report data disaggregated by sex, including outcomes, adverse effects, and rates of regret.
- **Strengthen safeguards:** Introduce mandatory, independent oversight of all cases involving girls, with a requirement for multi-disciplinary review and external audit.
- **Promote media literacy:** Equip girls and their families with resources to critically evaluate information encountered online and in peer groups.
- **Ensure parental and community engagement:** Parents and carers must be fully informed and involved in decision-making, with particular attention to the unique risks for girls.

Current practice represents a profound departure from established medical and ethical standards. The irreversible interventions being offered are based on weak evidence and disproportionately impact adolescent females. The lack of long-term data for girls is a critical failing that must be urgently addressed.

## REFERENCES

- Cass, H. (2024). Independent review of gender identity services for children and young people: Final report.
- Department of Health and Human Services. (2025). Treatment for Paediatric Gender Dysphoria: Review of Evidence and Best Practices.
- Additional data and references as mapped in the Female Data section of the report.