

Puberty blockers

Briefing for MPs, 15th July 2024

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Overview

The four-year Cass Review commissioned by NHS England found that there is no evidence that blocking puberty is a good treatment for gender-distressed children and that, rather than giving them time to think, it may lock them into a transgender identity and a medical pathway.

This matters because early puberty suppression followed by cross-sex hormones leads to loss of fertility and sexual function, and brings other health risks. Around 80% of children with gender distress not given puberty blockers find that their distress resolves during puberty.¹

The Cass Review recommended a holistic approach to the care of gender-distressed young people rather than a narrow focus on gender identity. The vast majority of those referred to gender clinics have other mental-health conditions, adverse childhood experiences, or both. A large share will grow up to be same-sex attracted.

Following the publication of the final report of the Cass Review, NHS England ended new prescriptions of puberty blockers for gender distress. Then-Secretary of State for Health and Social Care, Victoria Atkins MP, also enacted an emergency order to stop them being prescribed to patients in the UK by unregulated overseas

¹ Transgender Trend. 'Do children grow out of gender dysphoria?'

providers. An attempt was made this month to challenge this via judicial review.

The Secretary of State for Health and Social Care, Wes Streeting MP, has confirmed his support for the findings and recommendations of the Cass Review, including an end to use of puberty blockers for gender distress outside a possible clinical trial.

What are puberty blockers?

Synthetic gonadotrophin-releasing hormone (GnRH) analogues, or “**puberty blockers**”, are drugs that prevent the release of chemical signals that stimulate the production of the sex hormones oestrogen and testosterone. They are used to suppress testosterone in men with prostate cancer and to suppress libido in male sex offenders. For children, they are licensed for use to delay precocious puberty, a medical condition in which puberty starts abnormally early. **The medications halt the changes of puberty which enable a child to develop into an adult.** They have not been certified as a safe or effective treatment for

children with gender-related mental-health issues by either their manufacturers or the National Institute for Health and Care Excellence (NICE).

The use of puberty blockers for gender distress in the UK

In 2011 the Gender Identity Development Service (GIDS) operated by the Tavistock and Portman NHS Foundation Trust began a study of their use for children who expressed a strong desire to be the opposite sex, following an approach developed in the Netherlands. One of the motives was the recognition of poor mental-health outcomes for the adult transgender population and difficulty “passing” in their expressed gender.² The rationale for prescribing puberty blockers was that this would give children “time to think” about whether to transition as an

² P.T. Cohen-Kettenis & S.H.M. van Goozen. ‘Pubertal delay as an aid in diagnosis and treatment of a transsexual adolescent’. *European Child & Adolescent Psychiatry*, 1998 Dec; 7(4): 246–8.

adult, and also improve the ability to “pass” as a member of the opposite sex if they did. Later it was suggested the drugs might also improve body image and psychological wellbeing. The GIDS trial involved 44 children.³

The trial yielded only one published scientific article, which showed no statistically significant effect on children’s wellbeing. In addition, unpublished evidence showed that after a year on blockers children reported greater self-harm, and girls experienced more behavioural and emotional problems and expressed greater dissatisfaction with their bodies. Yet the GIDS clinic declared the initial trial a success and rolled out the treatment, shifting from its previous talking-therapy model to gender affirmation and medicalised transition.

³ Michael Biggs. ‘Britain’s experiment with puberty blockers’. *Inventing Transgender Children and Young People*, ed. Michele Moore and Heather Brunskell-Evans. Newcastle: Cambridge Scholars Publishing. 2019. pp. 40–55.

Although record-keeping at GIDS was poor, it has been estimated that more than 2,000 children and adolescents were prescribed puberty blockers. From 2015 onwards, the clinic saw a sharp rise in referrals and an unexplained shift from predominantly male to predominantly female patients. The vast majority of young people who started on puberty blockers progressed to masculinising or feminising hormones, as did 43 of the 44 children in the original GIDS puberty blockers study.

In 2019 it was reported that several clinicians had resigned from the service because of concerns over the gender-affirming treatment approach. In particular they said that gay children struggling with their sexuality were being wrongly diagnosed as “transgender” and put on a course of medical treatment that would leave them sterilised and without adult sexual function.⁴ These clinicians also said that transgender charities such as Mermaids were promoting transition as a cure-all solution for confused adolescents. The clinicians

⁴ Bannerman, Lucy (2019). 'Calls to end transgender 'experiment on children' Staff quit NHS clinic over ethics and safety fears', *The Times*, 8th April 2019.

said they were under pressure to refer young people for life-altering treatment, even though they did not always believe it was in the individual's best clinical interests.

Mermaids has repeatedly made public statements arguing that puberty blockers are necessary to prevent suicide. For example, in a *Daily Mail* article in 2014, then-CEO Susie Green, whose juvenile son had been treated privately with puberty blockers in the USA followed by genital surgery in Thailand at the age of 16, wrote:

“The blockers offer the only chance for them to stop the terrible trauma their children have started to go through as they begin to develop into a sex they feel is absolutely alien to them...The self-harm and suicide rate among transgender teens is extremely high so offering blockers saves lives. It’s quite simple.”⁵

With demand for puberty blockers rising, increasing numbers of children and young people and their families sought private provision to bypass the long waiting list and assessment process at GIDS. They procured unregulated supplies of puberty blockers and cross-sex hormones over the internet after minimal assessment through private services such as GenderGP. This led to pressure on GPs to continue prescribing puberty blockers and hormones on the NHS.

⁵ Sanchez Manning (2014). ‘NHS to give sex change drugs to nine-year-olds: Clinic accused of ‘playing God’ with treatment that stops puberty’. *Daily Mail*, 17th May 2014.

Keira Bell's legal challenge to puberty blockers for gender distress

In October 2019, a legal complaint was lodged against GIDS by Keira Bell (a young woman who had been treated at the Tavistock and later detransitioned) and second claimant Ms A (the mother of another GIDS patient).⁶ The case raised concerns about the adequacy of the consent procedures for hormone treatment.

The High Court considered that, in order to be competent to decide whether to take puberty blockers, the information a child would need to understand included:

- the immediate consequences of the treatment in physical and psychological terms
- the fact that the vast majority of patients taking puberty blockers go on to cross-sex hormones
- the relationship between taking cross-sex hormones and subsequent surgery, with the implications of such surgery

⁶ *Bell v Tavistock [2020] EWHC 3274 (Admin)*.

- the fact that cross-sex hormones may well lead to a loss of fertility
- the impact of cross-sex hormones on sexual function
- the impact that taking this step on this treatment pathway may have on future and life-long relationships
- the unknown physical consequences of taking puberty blockers; and the fact that the evidence base for this treatment is as yet highly uncertain.

It concluded that it would be “doubtful” that 14/15-year-olds would have such competence, and “highly unlikely” that children aged 13 or under would. This decision was overruled by the Court of Appeal ([2021] EWCA 1363 (Civ)), which determined that it was for doctors, not judges, to decide on the capacity of an individual child to consent to medical treatment. It emphasised more broadly that:

“Policy decisions on whether this treatment for gender dysphoria is wise or unwise are for the National Health Service, the medical profession and its regulators and Government and Parliament.”

The court expressed surprise at the inability of the GIDS clinic to provide reliable data on its patients and outcomes. The day after the hearing concluded, the clinic finally published the results of its puberty-blocking study, which had been available in 2017.

The Cass Review

In 2020 NHS England commissioned paediatrician Dr Hilary Cass to lead the Independent Review of Gender Identity Services for Children and Young People (the “Cass Review”). The four-year study included extensive consultation, a review of GIDS cases and a systematic review of published studies on puberty blockers and on masculinising and feminising hormones, undertaken by the University of York. Its final report was published in April 2024.

The University of York team reviewed 103 studies in total, of which two were high quality, 58 were moderate quality and 43 were low quality. All high-quality and moderate-quality reviews were included in the synthesis of results⁷. This totalled 58% of the 103 papers found.

The systematic review found no changes in gender dysphoria or body satisfaction from taking puberty blockers, and insufficient and inconsistent evidence about the effects of puberty suppression on psychological wellbeing, cognitive development, cardio-metabolic risk and fertility. There was no evidence that puberty blockers provide time to think, and concern that instead they may lock children into a transition pathway. Dr Cass observed that the focus on the use of puberty blockers had overshadowed the possibility of other treatments for co-existing conditions (including therapy, antidepressants and menstrual

⁷ The Cass Review. ['Final report – FAQs'](#) (accessed July 2024).

suppression with hormonal contraception for girls distressed by puberty).⁸

The Cass Review noted that women who take testosterone masculinise well, so puberty blockers give no benefit to girls in helping them to “pass” in later life. For boys there is the benefit in stopping irreversible changes such as a lower voice and facial hair, but this “has to be balanced against adequacy of penile growth for vaginoplasty”. Many boys who commence this intervention early in puberty will never experience orgasm.⁹

The Cass Review found that children with gender distress are at higher risk of suicide than other children (in line with other mental-health patient groups) but that giving puberty blockers and hormones does not reduce this:

⁸ The Cass Review (2024). *Final report*.

⁹ “Gender affirming” surgeon admits children who undergo transition before puberty NEVER attain sexual satisfaction. *The Post Millennial*, 1st May, 2022.

“It has been suggested that hormone treatment reduces the elevated risk of death by suicide in this population, but the evidence found did not support this conclusion.”

Cass noted that the combination of a strong belief in the efficacy of treatment and frustration at not getting it may increase suicide risk in this group, regardless of the actual efficacy of the treatment.

In July 2023 Dr Cass wrote to NHS England advising it that because of the limited benefits and the potential risks to neurocognitive development, psychosexual development and longer-term bone health, puberty blockers should be offered only under a research protocol – in other words, in a genuine clinical trial. In March 2024, following a consultation, NHS England adopted a policy that puberty blockers will no longer be available as routine treatment for children experiencing gender-related distress. GIDS has been shut down, and new regional hub services are being set up to better meet the holistic needs of young people distressed about their sex.

The plans for a research protocol are being taken forward by NHS England and the National Institute for Health and Care Research. NHS Scotland has also stopped the routine use of puberty blockers for gender distress.

Private provision of puberty blockers

The Cass Review identified concerns about private provision – the use of unregulated medications and providers that are not regulated within the UK. The multi-professional review group set up to look at GIDS cases saw:

“Cases presented where parents have, or are threatening to commence PPB’s [private puberty blockers] even though the treatment is not as identified in NHS protocols, the families have received no information about side effects or the impact on fertility, and no or limited baseline tests (e.g. bloods, dexa scan) have been done. It is suspected that this is an attempt by parents/guardians to put pressure on the MPRG and NHS that for

the child's safety they should be immediately referred for NHS treatment."¹⁰

The Cass Review said: "GPs should not be expected to enter into a shared care arrangement with a private provider, particularly if that private provider is acting outside NHS guidance."

Following the final report of the Cass Review, then-Secretary of State for Health and Social Care Victoria Atkins MP made an emergency order to restrict the provision of puberty blockers by private prescription, including prescribers overseas.¹¹ This was undertaken under powers provided by Section 62 of the Medicines Act 1968 to prohibit the sale of medicinal products. In order to use these powers, the Secretary of State must be satisfied that it is essential to make the order with immediate effect

¹⁰ The Cass Review (2024). *Final report*, Appendix 9, page 12.

¹¹ UK Government (2024). [The Medicines \(Gonadotrophin-Releasing Hormone Analogues\) \(Emergency Prohibition\) \(England, Wales and Scotland\) Order 2024](#).

to avoid serious danger to health. The emergency order was welcomed in the House of Commons by Wes Streeting MP, then Shadow Secretary of State¹².

A judicial review claim has been brought by an anonymous claimant and TransActual, an advocacy group for trans adults. The case is supported by the Good Law Project.¹³ The claimants argue that the conditions set out in s62 of the Medicines Act 1968 were not met and that the order was therefore unlawful.¹⁴ The claimants have argued that Atkins failed in her duty to consult the Commission on Human Medicines and to consult “with the Claimant or any similar organisations representative of the interests likely

¹² UK Parliament (2024). [NHS, Volume 750: debated on Thursday 23 May 2024. Hansard.](#)

¹³ TransActual (2024). [‘TransActual to challenge ban on puberty blockers in court’](#), and Good Law Project (2024). [‘Challenging the ban on puberty blockers’](#).

¹⁴ Russell-Cooke LLP. [Letter to Victoria Atkins MP, 4th June 2024.](#)

to be substantially affected by the Order”.

However, the act provides that such consultation is not required in the case where an order is made with urgency. The central challenge is therefore that the order is unlawful because it did not satisfy the necessary condition to be made under the emergency process. The judgment is awaited.

The Secretary of State for Health and Social Care is defending the prohibition order. Wes Streeting MP has said the evidence should have been established before puberty blockers were ever prescribed. He released a statement saying:

“The Cass Review found there is not enough evidence about the long-term impact of puberty blockers for gender incongruence to know whether they are safe or not, nor which children might benefit from them. We don’t yet know the risks of stopping pubertal hormones at this critical life stage. That is the basis upon which I am making decisions. I am treading cautiously in this area because the safety of children must come first.”¹⁵

Activist organisations and individuals have repeatedly claimed, in the media and on social media, that the Secretary of State has taken action that will “kill trans children”.¹⁶ Dr Natacha Kennedy of Goldsmiths University called it a “forced suicide policy”. Susie Green, previously of Mermaids and then private prescriber GenderGP, called it a “murderous ban” and accused the Secretary of State of transphobia and

¹⁵ Wes Streeting MP. [Tweet @wesstreeting, 14th July 2024.](#)

¹⁶ [Tweets about Wes Streeting, July 2024.](#)

having “Blood. On. His. Hands”.¹⁷ Jolyon Maugham KC of the Good Law Project, which is supporting TransActual in its judicial review, has posted on X claiming that “these measures will kill trans children”. These statements are particularly irresponsible given young people’s vulnerability to suicide contagion.

An evidence-based approach to treating gender-distressed children

The Cass Review has been cited in the USA, Australia and elsewhere as the most rigorous review of paediatric “gender medicine” available. NHS England has already acted on its interim recommendations for new regional clinics to provide more holistic support to patients referred for gender-related distress.

Further reading

- [The Cass Review: Final report](#)
- [The Cass Review: Final report – FAQs](#)

¹⁷ Susie Green. [Tweet @green_susie100, 12th July 2024.](#)

- [Sex Matters: factsheet on gender-distressed youth and suicide risk](#)

For more information or to arrange a meeting, contact PublicAffairs@sex-matters.org

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