GRP Children's and YP's group: Endocrine Treatment Age and Stage Ranges

Authors: Tarini Chetty[1], Avril Mason[2]

1. Consultant in Paediatric Endocrinology and Diabetes, RHCYP, Edinburgh
2. Consultant in Paediatric Endocrinology, RHC, Glasgow

1. When to refer to paediatric endocrinology

Paediatric Endocrinology will only accept referrals from NYPGS.

Indications for referral include:

- Referral for consideration of suppression of puberty with GnRH analogue.
    - Timing of referral: This referral should take place after psychology assessment has confirmed that a young person is experiencing gender incongruence that was persistent and consistent in childhood and intensified upon entry into adolescence and the young person self-reports that they have entered puberty
- Pubertal assessment
    - Timing of referral: Assessment of puberty may be requested for a young person who has not completed the assessment process by Mental Health Care professionals and is therefore not yet eligible for medication to suppress puberty. The aim of the assessment in Paediatric Endocrinology is to confirm or refute that the young person has entered puberty as this information may help inform the psychological assessment process. The young person should be informed prior to this appointment that the outcome of the appointment is to provide information on pubertal status and not to commence on GnRH analogue therapy.

2. When can GnRH treatment be commenced?

GnRH analogue treatment can be commenced when the young person has entered puberty (Tanner stage B2, G2 testes volume 4mL) and the following criteria are met:

- The YP meets the diagnostic criteria of gender incongruence as per the ICD- 11
- There is well documented evidence of persistent gender incongruence or gender non-conformity/diversity of several years
- The young person has entered puberty (Tanner stage B2, G2 testes volume 4mL)
- The young person and their family have been fully informed about the effects, the side effects, and the impact of the treatment on future surgical procedures, as well as about the reproductive effects and can provide consent/assent for the treatment
- The YP has been informed of the reproductive effects of treatment that includes the potential loss of fertility and options to preserve fertility have been discussed in the context of the YP's stage of pubertal development
- Any coexisting mental health difficulties that could interfere with treatment have been addressed
- Any co-existing social problems that could interfere with treatment have been addressed

- The young person understands that any self-medication with hormone therapy is not permitted and would result in the withdrawal of treatment from the clinic
- The young person agrees to engage with concurrent endocrinology and clinical psychology reviews and support appointments as a prerequisite for treatment with GnRH analogue therapy.

  The young person understands that if they do not attend clinical psychology and/or endocrine appointments, it would be assumed by the team that they do not wish to continue with treatment. In this event, a letter would be sent to the young person explaining they can contact the team if they wish to re-engage with both services.

3. When can gender affirming hormones be commenced?

Hormone treatment with oestrogen or testosterone can be considered from 16 years* of age after assessment has been completed by two clinicians.

The following criteria need to be met before gender affirming hormones can be considered as per WPATH[2] standards of care:

- The YP meets the diagnostic criteria of gender incongruence as per the ICD- 11
- There is well documented evidence of persistent gender incongruence or gender non-conformity/diversity of several years
- The YP demonstrated the emotional and cognitive maturity required to provide consent/assent for the treatment
- Any coexisting mental health difficulties that could interfere with treatment have been addressed
- Any co-existing social problems that could interfere with treatment have been addressed
- The YP has been informed of the reproductive effects that includes the potential loss of fertility and options to preserve fertility have been discussed in the context of the YP's stage of pubertal development
- The person has engaged with the gender service and assessment has been completed by two clinicians

**WPATH SOC8 recommend GAH can be commenced from 14 years, current practice is from 16 years, outcome of Cass review awaited to further inform GRP*

4. When can GnRH analogues be discontinued?

- In transgender males, during pubertal induction with testosterone, the initial levels will not be high enough to suppress endogenous sex steroid secretion. Thus, GnRH analogue treatment should continue until on an adult dose of testosterone for a minimum of 6 months.
- In transgender females, continuation of GnRH analogue treatment is recommended until gonadectomy, because gonadotrophins and endogenous production of testosterone will interfere with the efficacy of oestrogen supplementation; In those who may decide not to have gonadectomy, prolonged GnRH analogue treatment is

an option, however the potential risks of this treatment are currently unknown. Alternatively, transgender females may be treated with an anti-androgen that directly suppresses androgen action.

5. When will YP be transitioned to adult services?

Transition to adult services will take place when on adult dose hormone treatment with oestrogen or testosterone and aged greater or equal to 18 years.

6. When should fertility preservation options be considered?

Fertility preservation options should be discussed with YP and family prior to commencing blockers and prior to commencing gender affirming hormone treatment

- Natal males: Likely to require testicular volume of greater or equal to 12mls to produce a semen sample. If TV less than 12mls, to produce a semen sample, YP will need to be off GnRH analogue treatment and allowed to progress through natal puberty until reach TV >12mls (note may take 3+ years to progress from 4ml to 12ml volume)
- Natal females: If post menarcheal can have option of referral for egg collection. If periods not started would need to be off GnRH treatment to allow natal puberty to progress until reached menarche and can have option of egg collection.

References:

1. Hembree WC, Cohen-Kettenis PT, Gooren L, Hannema SE, Meyer WJ, Murad MH, Rosenthal SM, Safer JD, Tangpricha V, T'Sjoen GG. Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab. 2017 Nov 1;102(11):3869-3903. doi: 10.1210/jc.2017-01658. Erratum in: J Clin Endocrinol Metab. 2018 Feb 1;103(2):699. Erratum in: J Clin Endocrinol Metab. 2018 Jul 1;103(7):2758-2759. PMID: 28945902.
2. Coleman, Eli, et al. "Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7." International journal of transgenderism 13.4 (2012): 165-232.