

# Hormone Therapy in Gender Dysphoria

## AMBERO

Prescribing for **trans women** (this applies to a person assigned male, cis-male, at birth undertaking gender transition to become a female)

**Prescribing Information Sheet:** To be read in conjunction with the relevant SPCs

NHS England (NHSE) commission specialist gender identity centres. NHSE have stated that the patient's GP is responsible for organising blood and other diagnostic tests and for prescribing pharmacological treatments as recommended by the specialist identity centres. The Specialist Gender Identity service will assist by providing relevant information and support for prescribing and monitoring, including the interpretation of blood test results. It is therefore likely that GPs will be requested to prescribe hormones for patients that are under the care of a specialist identity centre.

However, **NHSE has also stated that NHS GICs should retain responsibility for providing prescriptions and for monitoring until the GP has agreed to a transfer of responsibilities. Individual prescribers MUST only prescribe within their own level of competence.**

The local gender identity centre is in Leeds which forms part of the Leeds and York Partnership NHS Foundation Trust.

The General Medical Council (GMC) have put together a set of ethical guidance on trans healthcare which can be accessed via: <https://www.gmc-uk.org/ethical-guidance/ethical-hub/trans-healthcare>.

### IMPORTANT INFORMATION

**NHS England has stated the following concerning gender incongruence and/or gender dysphoria for those < 18 years:**

Patients under 18 years of age **must not** be prescribed puberty-suppressing hormones. This includes both private and NHS treatment.

**Additionally:**

GPs **must** refuse to support the private prescribing or supply of GnRH analogues.

GPs **should** refuse to support an unregulated provider in the prescribing or supply of alternative medications that may be used to suppress pubertal development.

GPs **should** refuse to support an unregulated provider in the prescribing of exogenous hormones.

**Prescribing for those 18 or over:**

GPs should evaluate requests for shared care by confirming that the request originates from a reputable provider and an appropriate gender specialist. GPs may decline to prescribe if safety concerns arise, as long as this does not create a significant clinical risk to the patient.

**Please note:** The Medicines (Gonadotrophin-Releasing Hormone Analogues) (Restrictions on Private Sales and Supplies) (England, Wales and Scotland) Order 2024 imposes a prohibition on the sale or supply of certain medicinal products that contain gonadotrophin-releasing hormone analogues (GnRH analogues): This means that GnRH analogues cannot be prescribed to **private patients** under 18 for gender dysphoria/gender incongruence unless commenced before 3rd June 2024. The Order applies to England, Wales, Northern Ireland and Scotland.

The following tables contain information relating to the most commonly requested hormone replacement therapies. **This information relates to trans women (a person assigned male, cis-male, at birth undertaking gender transition to become a female) only.** There is a separate prescribing sheet available for trans men (a person assigned female, cis-female, at birth undertaking gender transition to become a male) available on the LSCMMG website via <https://www.lancashireandsouthcumbriaformulary.nhs.uk/>.

**Table 1. Preparations for trans women adult patients (this applies to a person assigned male, cis-male, at birth undertaking gender transition to become a female)**

Medication	Typical Dosing and Product Information off label use	Additional Information (See table 3 and 4 for Side Effects and Interactions)
Estradiol PO	Generic and proprietary – 1 to 10mg daily	The dose is gradually increased to achieve a maximum degree of feminisation.
Estradiol PC	Oestrogel® Pump-Pack 0.06% gel – TWO to SIX measures (1.5 to 4.5mg) daily or Sandrena sachets 0.5mg to 1.5mg daily, maximum dose 3mg  Transdermal patch e.g. Evorel® - 50 to 200microgram TWICE weekly	Transdermal preparations should be offered to patients over 40 years, smokers or those with liver disease as they have been associated with a lower risk of thrombosis and liver dysfunction.
<b>GnRH analogues and anti-androgen treatment. Please note:</b> the following gonadectomy GnRH analogues are no longer required. However, rarely androgens may still be significantly derived from adrenal glands. If so, an anti-androgen may still be indicated.		
Leuprorelin acetate SC	Prostap® SR DCS or Prostap® 3 DCS – initially 7.5mg every month increased to 11.25mg every THREE months (as advised by the specialist centre).	Can be considered for self - administration. Introduced alongside estradiol. Aim to achieve equivalent female levels of testosterone.
Triptorelin embonate IM	Decapeptyl SR 22.5mg IM every SIX months (as advised by the specialist centre) – <b>see additional information</b>	To be considered for those that are tolerating GnRH analogues but timely administration of a shorter acting analogue is not possible.
Finasteride PO  <b>Prescribers must be aware that patients should be advised to stop finasteride immediately and inform a healthcare professional if they develop depression – <a href="#">MHRA/CHM advice May 2017</a></b>	Generic – 5mg daily	Adjunctive anti-androgen treatment (if clinically indicated). Recommended for a time limited period only prior to introduction of GnRH analogues to reduce male pattern hair loss. Can be used instead of GnRH analogues if the patient prefers oral medication.
Spirolactone PO	Generic – 100 to 200mg daily	Adjunctive anti-androgen treatment (if clinically indicated). Not recommended for long-term use due to adverse effect profile.
Cyproterone PO	Generic – 50 to 100mg daily	Recommended for a short period on initiation of GnRH analogues to prevent a testosterone surge.

**Table 2. Suggested dose adjustment of estradiol therapy.** Seek advice from the patient's original gender identity clinic if unable to achieve levels in the therapeutic range.

**Dose titration of estradiol oral preparations:** if the estradiol level (taken 24hours after the last oral dose) is <350pmol/L increase the dose by 1mg. If the estradiol level is >750pmol/L decrease the dose by 1mg. In both cases recheck levels in 12-weeks.

**Dose titration of estradiol gel preparations: Oestrogel® Pump-Pack 0.06% gel/Sandrena® Gel:** if the estradiol level (taken 4 – 6 hours after application) is <350pmol/L increase the dose by ONE measure (0.75mg) or 0.5mg of Sandrena® Gel. If the estradiol level is >750pmol/L decrease the dose by ONE measure (0.75mg) or ONE sachet (0.5mg) daily. In both cases recheck levels in 12-weeks.

**Dose titration of estradiol patches:** if the estradiol level (taken 48hours after patch application – do not remove the patch) is <350pmol/L increase the dose by 50micrograms (to be administered TWICE weekly). If the estradiol level is >750pmol/L decrease the dose by 50microgram (to be administered TWICE weekly). In both cases recheck levels after 12-weeks.

**Table 3. Monitoring and review requirements**

The following tests or measurements should be monitored in primary care every **THREE** months in the first year, then every **SIX** months for **THREE** years after starting hormone therapy, and continued **ONCE** yearly thereafter.

Test or Measurement	Recommended action if the result is outside of the normal range
<b>Body Mass Index</b>	Manage according to local guidelines if BMI increases to over 30 – only necessary in this context if the patient is considering surgery. BMI under 40 is desired (but not essential) prior to commencing hormone therapy.
<b>Blood pressure</b>	Manage according to local guidelines if BP greater than 140/90mmHg.
<b>Urea and electrolytes</b>	If out-of-range, seek further advice from the patient's original gender identity clinic.
<b>Liver function tests</b>	If elevated, refer to gastroenterology – seek further advice from the patient's original gender identity clinic.
<b>HbA1c</b>	If elevated, manage according to local guidelines.
<b>Lipid profile</b>	If elevated, manage according to local guidelines.
<b>TSH</b>	If elevated, refer to endocrinology.
<b>Fasting serum morning testosterone</b>	Target <1.8nmol/L; Seek advice from the patient's original gender identity clinic if elevated and measure LH/FSH.
<b>Serum estradiol</b>	Target range <b>350 to 750pmol/L</b> ; Seek advice from the patient's original gender identity clinic if unable to achieve level in the therapeutic range.
<b>Serum prolactin</b>	If above 1000mU/L on follow up refer to local endocrinologist to assess possible cause Target range < 400mU/L; Seek advice from the patient's original gender identity clinic if elevated >400mU/L but <1000mU/L.

**Table 4. Summary of medication side effects** Please refer to the individual medications [SPC](#) for more details

<p><b><u>Estradiol</u></b></p> <p><b>Likely increased risk</b></p> <p>Venous thromboembolic disease Gallstones Elevated liver enzymes Weight gain Hypertriglyceridemia</p> <p><b>Likely increased risk with presence of additional CVS risk factors (including age)</b></p> <p>Cardiovascular disease</p> <p><b>Conditions which need supervision</b></p> <p>Type 2 diabetes, risk factors for thromboembolic disorders, hypertension, liver disorders, migraine, lupus, epilepsy, asthma, Otosclerosis.</p> <p><b>Low increased risk or inconclusive</b></p> <p>Breast Cancer</p> <p><b><u>Cyproterone</u></b></p> <p><b>Common or very common</b></p> <p>Depressed mood; dyspnoea; fatigue; gynaecomastia; hepatic disorders; hot flush; hyperhidrosis; restlessness; weight change</p> <p><b>Uncommon</b></p> <p>Skin reactions</p> <p><b>Rare or very rare</b></p> <p>Galactorrhoea; neoplasms; hypersensitivity</p> <p><b>Frequency not known</b></p> <p>Adrenocortical suppression; anaemia; azoospermia; hair changes; hypotrichosis; osteoporosis; sebaceous gland underactivity (may clear acne); thromboembolism</p> <p><b>PLEASE NOTE:</b></p> <p>Direct hepatic toxicity including jaundice, hepatitis and hepatic failure have been reported with cyproterone (fatalities reported, usually after several months, at dosages of 100 mg and above). If hepatotoxicity is confirmed, cyproterone should normally be withdrawn unless the hepatotoxicity can be explained by another cause such as metastatic disease (in which case</p>	<p><b><u>Leuprorelin</u></b></p> <p><b>Common or very common</b></p> <p>Appetite decreased; arthralgia; bone pain; breast abnormalities; depression; dizziness; fatigue; gynaecomastia; headache; hepatic disorders; hot flush; hyperhidrosis; injection site necrosis; insomnia; mood altered; muscle weakness; arthralgia; nausea; peripheral oedema; sexual dysfunction; testicular atrophy; vulvovaginal dryness; weight change</p> <p><b>Uncommon</b></p> <p>Alopecia; paraesthesia; dizziness; weakness of lower extremities; diarrhoea; fever; myalgia; palpitations; visual impairment; vomiting</p> <p><b>Rare or very rare</b></p> <p>Haemorrhage</p> <p><b>Frequency not known</b></p> <p>Anaemia; glucose tolerance impaired; hypertension; hypotension; leucopenia; paralysis; pulmonary embolism; QT interval prolongation; seizure; spinal fracture; thrombocytopenia; urinary tract obstruction</p> <p><b><u>Finasteride</u></b></p> <p><b>Common or very common</b></p> <p>Sexual dysfunction</p> <p><b>Uncommon</b></p> <p>Breast abnormalities; skin reactions</p> <p><b>Frequency not known</b></p> <p>Angioedema; depression; infertility male; palpitations; testicular pain</p> <p><b><u>Triptorelin</u></b></p> <p><b>Common or very common</b></p> <p>Asthenia; depression; diabetes mellitus; dizziness; dry mouth; embolism; gastrointestinal discomfort; gynaecomastia; haemorrhage; headache; hot flush; hyperhidrosis; hypersensitivity; hypertension; joint disorders; menstrual cycle irregularities; mood altered; muscle complaints; nausea; oedema; ovarian and fallopian tube</p>
--	---

<p>cyproterone should be continued only if the perceived benefit exceeds the risk).</p> <p><b>Spirolactone</b> <b>Common or Very Common</b></p> <p>Hyperkalaemia; confusional state; dizziness; nausea; pruritis; rash; muscle spasms; acute kidney injury; gynaecomastia; malaise</p> <p><b>Uncommon</b></p> <p>Electrolyte imbalance; hepatic function abnormal; urticaria</p> <p><b>Frequency not known</b> Acidosis hyperchloraemic; acute kidney injury; agranulocytosis; alopecia; breast neoplasm benign; breast pain; confusion; dizziness; electrolyte imbalance; gastrointestinal disorder; gynaecomastia; hepatic function abnormal; hyperkalaemia (discontinue); hypertrichosis; leg cramps; leucopenia; libido disorder; malaise; menstrual disorder; nausea; severe cutaneous adverse reactions (SCARs); skin reactions; thrombocytopenia</p>	<p>disorders; pain; painful sexual intercourse; pelvic pain; sexual dysfunction; skin reactions; sleep disorders; weight changes; injection site reaction</p> <p><b>Uncommon</b></p> <p>Alopecia; appetite abnormal; asthma exacerbated; chills; confusion; constipation; diarrhoea; drowsiness; dyspnoea; flatulence; gout; muscle weakness; taste altered; testicular disorders; tinnitus; vertigo; vision disorders; vomiting; thrombocytosis; diabetes mellitus; hyperlipidaemia; insomnia; paraesthesia; palpitations; epistaxis; abdominal pain; acne; rash (various types); pruritis; muscle disorders; bone pain; arthralgia; nocturia; urinary retention; gynaecomastia; lethargy; peripheral oedema; pain; rigors; somnolence</p> <p><b>Rare or very rare</b></p> <p>Abnormal sensation in eye; chest pain; difficulty standing; fever; hypotension; influenza like illness; musculoskeletal stiffness; nasopharyngitis; orthopnoea; osteoarthritis; memory impairment; joint problems; pyrexia; dysstasia</p> <p><b>Frequency not known</b></p> <p>Angioedema; malaise; urinary incontinence QT interval prolongation; anxiety</p>
---	---

**Table 5. Interactions** Please refer to the individual medications [SPC](#) for more details

<p><b>Estradiol</b></p> <p>Medicines which either increase or decrease clearance of estradiol such as CYP450 enzymes inducers/inhibitors (see BNF/SPC).</p> <p><b>Leuprorelin and triptorelin</b></p> <p>No interactions listed in the BNF.</p> <p><b>Finasteride</b></p> <p>Although the risk for finasteride to affect the pharmacokinetics of other drugs is estimated to be small, it is probable that inhibitors and inducers of cytochrome P450 3A4 will affect the plasma concentration of finasteride.</p> <p><b>Spirolactone</b></p> <p>Spirolactone might oppose the effects of Abiraterone (interaction classed as severe by the BNF). Manufacturer advises avoid.</p> <p><b>Cyproterone</b></p> <p>Several CYP450 enzyme inducers may decrease the efficacy of cyproterone (See BNF for list of severe interactions).</p>
---

**Bibliography**

1. General Medical Council (GMC). Trans healthcare 2019 [Available from: <https://www.gmc-uk.org/ethical-guidance/ethical-hub/trans-healthcare>] [Accessed online August 2024].
2. Royal Pharmaceutical Society. BNF: British National Formulary - NICE. 2024. Accessed via [www.nice.bnf.org.uk](http://www.nice.bnf.org.uk) [accessed online: October 2024].
3. NHS England policy: Prescribing of Gender Affirming Hormones (GAH; masculinising or feminising hormones) as part of the Children and Young People’s Gender Service is available via <https://www.england.nhs.uk/wp-content/uploads/2024/03/clinical-commissioning-policy-prescribing-of-gender-affirming-hormones.pdf> [Accessed online August 2024]
4. Sheffield Gender Identity Clinic. Prescribing Guidelines: Trans woman medication (This applies to a person assigned male, cis-male, at birth undertaking gender transition to become a female). Sheffield Health and Social Care NHS Foundation Trust (updated July 2022).
5. [The Medicines \(Gonadotrophin-Releasing Hormone Analogues\) \(Restrictions on Private Sales and Supplies\) Order 2024](#)

Please access this guidance via the LSCMMG website to ensure that the correct version is in use.

**Version Control**

Version Number	Date	Amendments Made
Version 1.0	July 2019	New guideline. AG

Version 1.1	September 2019	When to stop GnRH analogues added. AG.
Version 1.2	March 2021	Prescribing responsibility updated. AG.
Version 1.3	July 2021	Triptorelin added. AG.
Version 1.4	December 2023	Amended to align with updated Sheffield Guidance and SPCs.
Version 1.5	September 2024	Amended to align with updated NHSE policy.
Version 1.6	December 2024	References updated to include Government legislation.
Version 1.7	May 2025	Information and guidance in relation to update to the PSH statutory instrument updated.

©Midlands and Lancashire Commissioning Support Unit, 2025.

The information contained herein may be superseded in due course. All rights reserved.  
Produced for use by the NHS, no reproduction by or for commercial organisations, or for commercial purposes, is allowed without express written permission.

Midlands and Lancashire Commissioning Support Unit,  
**Leyland House**, Lancashire Business Park, Leyland, PR26 6TY  
Tel: 01772 644 400 | <https://www.midlandsandlancashirecsu.nhs.uk/>