

# Consecutive Lynestrenol and cross-sex hormone treatment in female to male transgender adolescents: a retrospective analysis

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## Background - Methods

### Background

Gender dysphoria (GD) is defined as a discrepancy between the expressed or experienced gender and the sex assigned at birth, which causes distress or impairment in important areas of functioning.

To reduce this distress, two types of treatment are available in adolescents with persisting GD depending on the pubertal development at diagnosis:

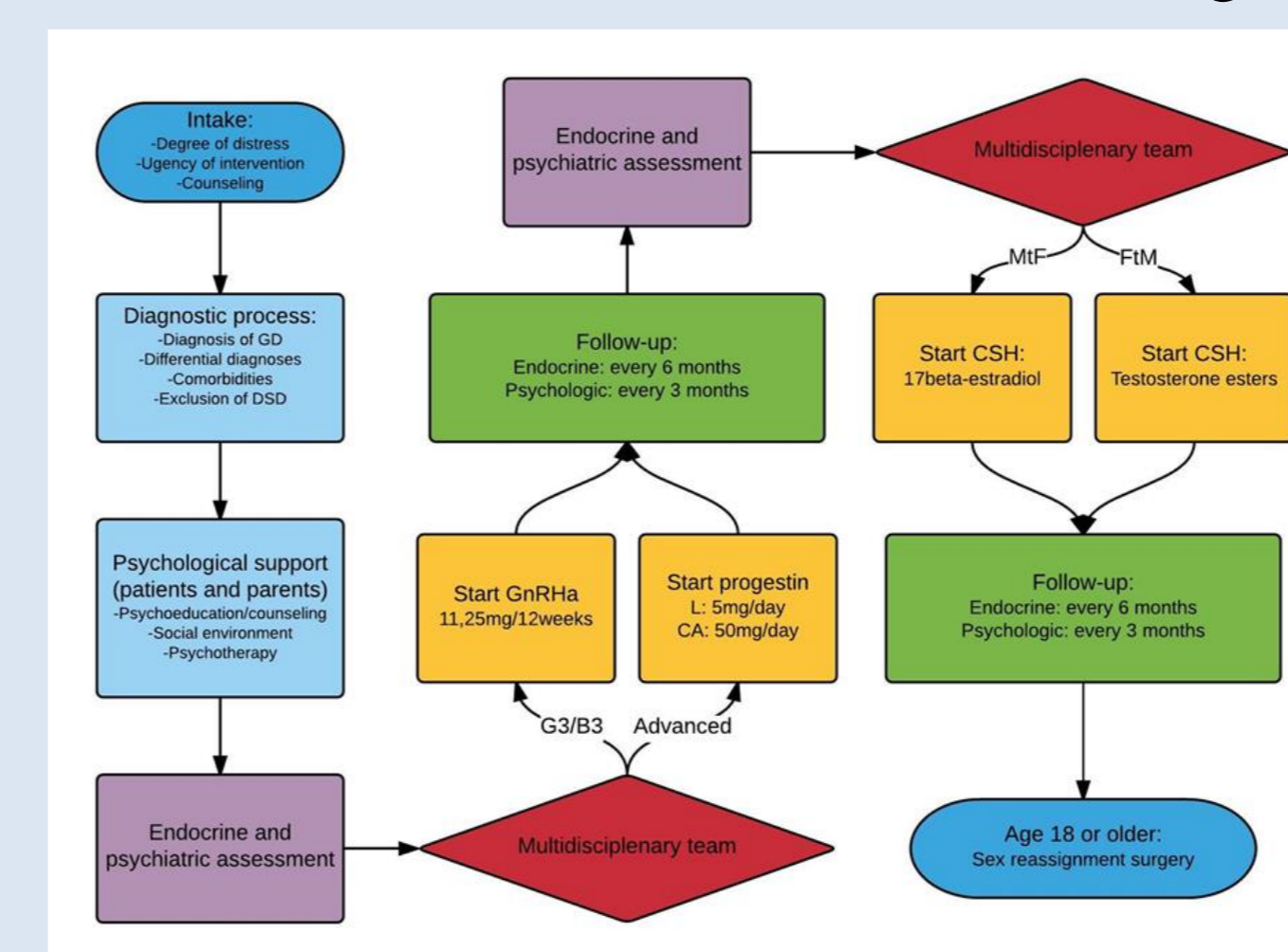
- Early pubertal diagnosis: gonadotropin releasing hormone analogues (GnRHa) for full suppression of gonadotropins and bodily pubertal changes.
- Mid- or late pubertal diagnosis: pro-androgenic progestins to weaken the effects of endogenous hormones, e.g. suppress menstruation.

Due to the high costs of GnRHa and their inability to reverse secondary sexual characteristics, pro-androgenic progestins are a valuable alternative in mid- or late puberty when GnRHa are not reimbursed. However, no studies exist on the eventual pro-androgenic effects and side effects of progestins.

### Methods

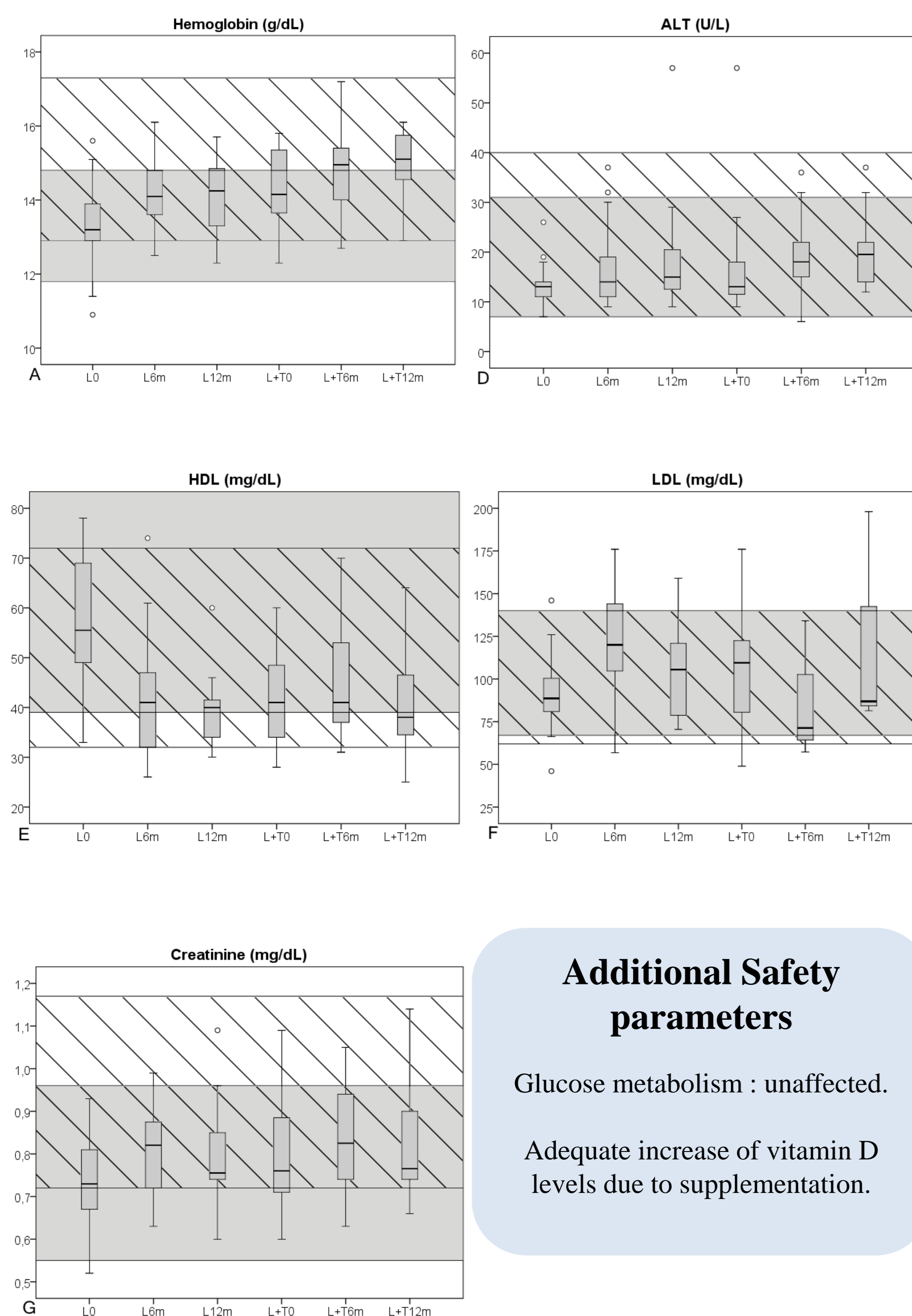
To examine the clinical and biochemical effects (anthropometry, safety parameters, hormone levels) of lynestrenol monotherapy (L) 5 mg/d and in combination with testosterone esters (L+T), a retrospective analysis of clinical and biochemical data in 45 transgender boys was performed.

**Disclosure:** the authors have nothing to disclose.



Flowchart of care plan for GD at Ghent University Hospital

## Results



### Additional Safety parameters

Glucose metabolism : unaffected.

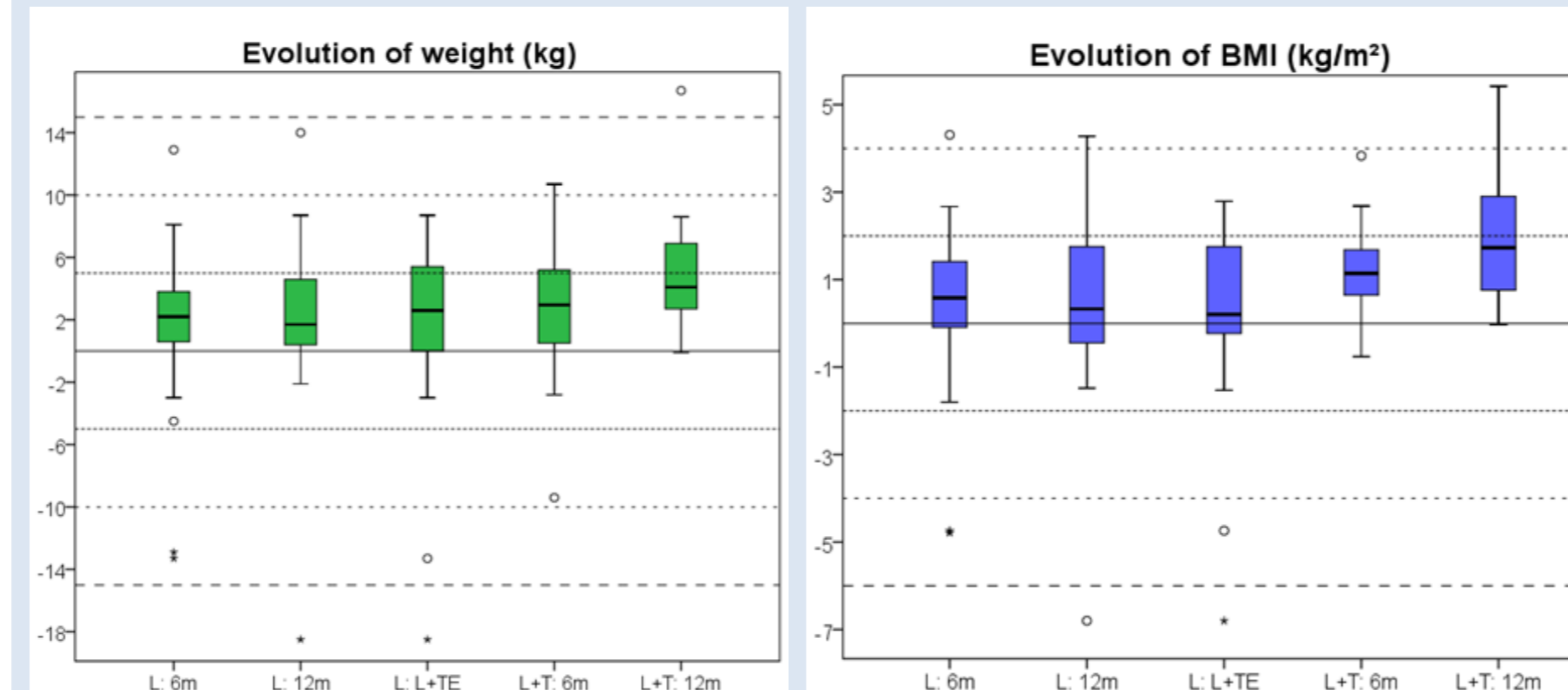
Adequate increase of vitamin D levels due to supplementation.

### Mean treatment duration:

L: 12,6 months  
L+T: 11,4 months

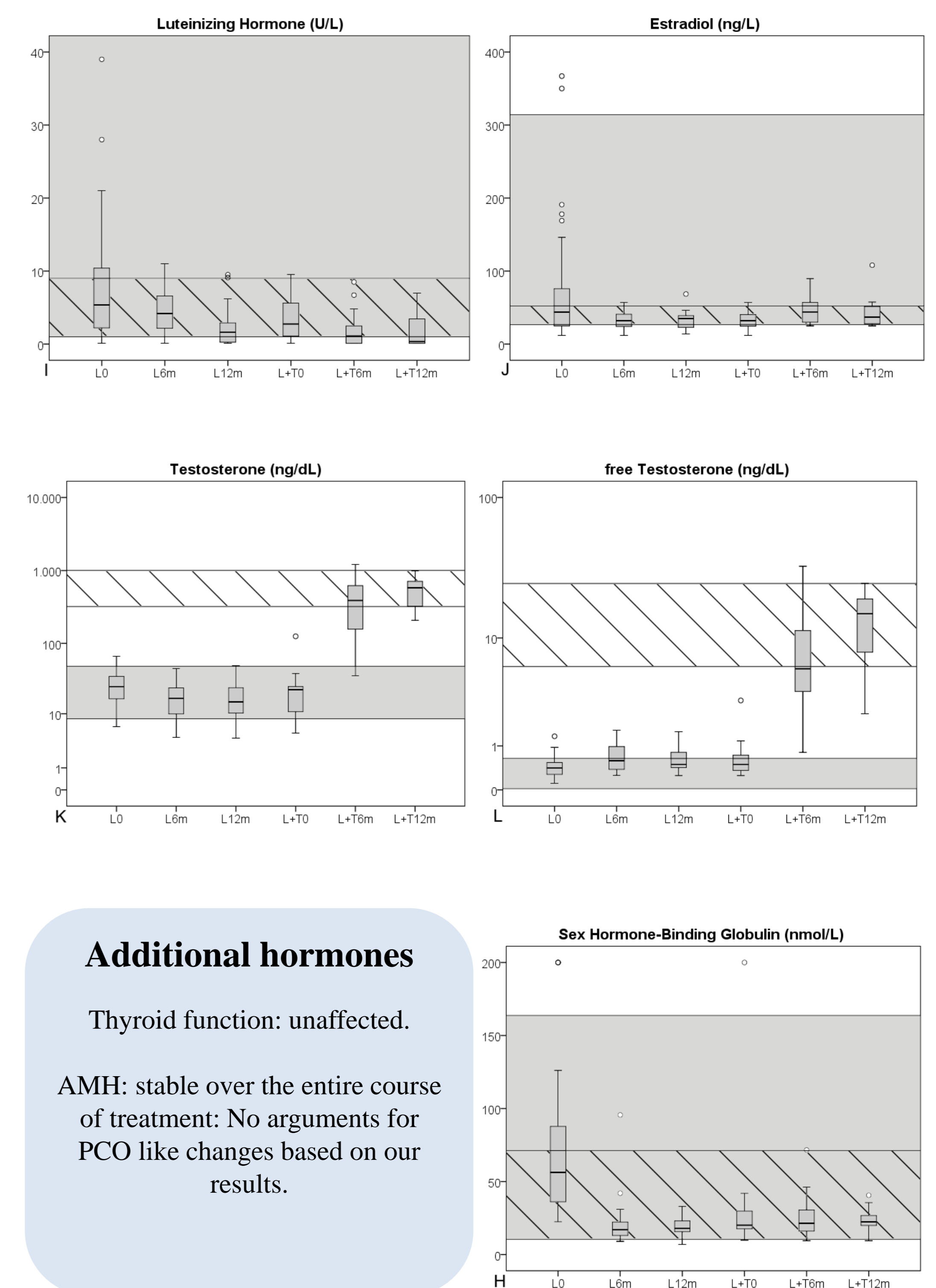
### Anthropometrics

Height start L: 166,9 cm,  
Height start L+T: 167,6 cm



### Side effects

<b>Metrorrhagia (variable intensity)</b> Prevalence highest in the first months of therapy and decreased thereafter.	<ul style="list-style-type: none"> <li>• During L: <b>48,7%</b></li> <li>• During L+T: <b>25%</b></li> </ul>
<b>Acne</b> Prevalence highest in the first months of therapy and decreased thereafter.	<ul style="list-style-type: none"> <li>• During L: <b>28,6%</b></li> <li>• During L+T: <b>59,1%</b></li> </ul>
<b>Headaches</b>	• Over entire course of treatment: <b>12,1%</b>
<b>Hot flushes</b>	• Over entire course of treatment: <b>9,8%</b>
<b>Fatigue</b>	• Over entire course of treatment: <b>8%</b>



### Additional hormones

Thyroid function: unaffected.

AMH: stable over the entire course of treatment: No arguments for PCO like changes based on our results.

## Conclusions

Treatment with lynestrenol effectively **decreases the estrogenic to androgenic ratio within six months** of treatment.

Its use is **safe and cheap** in late pubertal transgender boys. However, **higher doses** may be needed to induce total amenorrhea in many youngsters. Overall we consider lynestrenol to be a **valuable alternative** for expensive GnRHa, especially when secondary sexual characteristics have fully developed.