

# Transsexualität - Diagnostik und Therapie

**Sven Diederich**

Kein Interessenskonflikt



# Transsexualität - Definition nach ICD 10

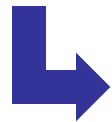
---

## F64 Störungen der Geschlechtsidentität

### F64.0 Transsexualismus

Der Wunsch, als Angehöriger des anderen Geschlechtes zu leben und anerkannt zu werden. Dieser geht meist mit Unbehagen oder dem Gefühl der Nichtzugehörigkeit zum eigenen anatomischen Geschlecht einher.

Es besteht der Wunsch nach chirurgischer und hormoneller Behandlung, um den eigenen Körper dem bevorzugten Geschlecht soweit wie möglich anzugleichen.



**Verantwortungsbewußte ärztliche Tätigkeit erforderlich!**

# **„Transsexualität“ (Transgender) - Definition nach ICD 11**

---

**5A30 Gender Incongruence of adolescence and adulthood**

**5A31 Gender Incongruence of childhood**

**Beek TF et al: Gender incongruence of adolescence and adulthood. Accessibility and clinical utility of the World Health's Organization's proposed ICD-11 criteria. PLOS ONE 2016.**

# Definition Transgender

	Assigned sex at birth	
	Male	Female
Current gender identity		
Male	Cisgender	Trans masculine*
Female	Trans feminine*	Cisgender
Transgender	Trans feminine*	Trans masculine*
Do not identify as male, female, or transgender	Trans feminine*	Trans masculine*

Cisgender=non-transgender. \*Inclusion of these cells allows overall prevalence of transgender people to be captured.

**Table 3: Example of two-step method used to capture data about transgender people in the US Growing Up Today Study (GUTS)**

**Reisner SL et al: Global health burden and needs of transgender populations: a review. Lancet 2016; 388: 412-36.**

# Transgender (ICD-10 F64.0): Prävalenz

	Sample	Measure	Prevalence of transgender people by birth-assigned sex		
			Male	Female	All
Conron et al (2012), USA <sup>14</sup>	28 176 adults	Identification as transgender	0.5%*	0.4%*	0.5%
Glen and Hurrell (2012), UK <sup>15</sup>	9950 adults	Identification as other gender or in another way	0.6%†	0.4%†	0.5%†
Clark et al (2014), New Zealand <sup>16</sup>	7729 high-school students	Identification as transgender	1.3%‡	1.2%‡	1.2%
Kuyper and Wijzen (2014), Netherlands <sup>17</sup>	8064 adults	Identification on gender spectrum	1.1%	0.8%	0.9%¶
Van Caenegem et al (2015), Belgium <sup>18</sup>	1832 adults	Identification on gender spectrum	0.7%	0.6%	0.6%

\*Extrapolated from table 1 in article. †Extrapolated from annex B in paper. ‡Extrapolated from table 1 in paper. ¶Extrapolated from table 3 in article.

Table: Population studies yielding prevalence data for transgender people



Winter S et al: Transgender people: health at the margins of society. Lancet 2016; 388: 390-400.  
 Gooren LJ: Care of transsexual persons. NEJM 2011; 364: 1251-7.

# Behandlungsleitlinien Transgender

<b>Empfohlene „Mindestzeiten“</b>		<b>Deutsche Standards der Behandlung und Begutachtung von Transsexuellen 1997</b>	<b>Standards of Care for Gender Identity Disorders Harry Benjamin International Dysphoria Association 6<sup>th</sup> Version 2001</b>
<b>vor Hormon- therapie</b>	<b>Alltagstest</b>	<b>12 Monate</b>	<b>3 Monate*</b>
	<b>Psychotherapie</b>	<b>12 Monate</b>	<b>3 Monate*</b>
			(*eins von beiden)
<b>vor Operation</b>	<b>Hormontherapie</b>	<b>6 Monate</b>	<b>1 Jahr</b>
	<b>Alltagstest</b>	<b>18 Monate</b>	<b>1 Jahr</b>
	<b>Psychotherapie</b>	<b>18 Monate</b>	<b>1 Jahr</b>

Deutsche Fachgesellschaften Becker et al. 1997

# Behandlungsleitlinien Transgender

Hormones and upper body surgery			
Criteria for adults 1 letter	Hormone therapy	Chest surgery	Breast augmentation*
Persistent, well-documented gender dysphoria	*	*	*
Capacity to make a fully informed decision and to consent for treatment	*	*	*
Age of majority in a given country	*	*	*
If significant medical or mental concerns are present, they must be reasonably well controlled	*	*	*

**Figure 1:** Criteria for hormones and upper body surgery, WPATH standards of care (version 7)<sup>1</sup> \* Nach 12 Monaten Hormonen

## World Professional Association for Transgender Health (WPATH)

Wyley K et al: Serving transgender people: clinical care considerations and service delivery models in transgender health. Lancet 2016; 388: 401-11.

# Behandlungsleitlinien Transgender

Lower body surgery		
Criteria for adults 2 letters	Gonadectomy	Genital surgery*
Persistent, well-documented gender dysphoria	*	*
Capacity to make a fully informed decision and to consent for treatment	*	*
Age of majority in a given country	*	*
If significant medical or mental concerns are present, they must be well controlled	*	*
12 continuous months of hormone therapy as appropriate to the patient's gender goals (unless the patient has a medical contraindication or is otherwise unable or unwilling to take hormones)	*	*
12 continuous months of living in a gender role that is congruent with their gender identity		*

Figure 2: Criteria for lower body surgery, WPATH standards of care (version 7)<sup>1</sup>

## World Professional Association for Transgender Health (WPATH)

Wyley K et al: Serving transgender people: clinical care considerations and service delivery models in transgender health. Lancet 2016; 388: 401-11.



# Studien Transgender

---

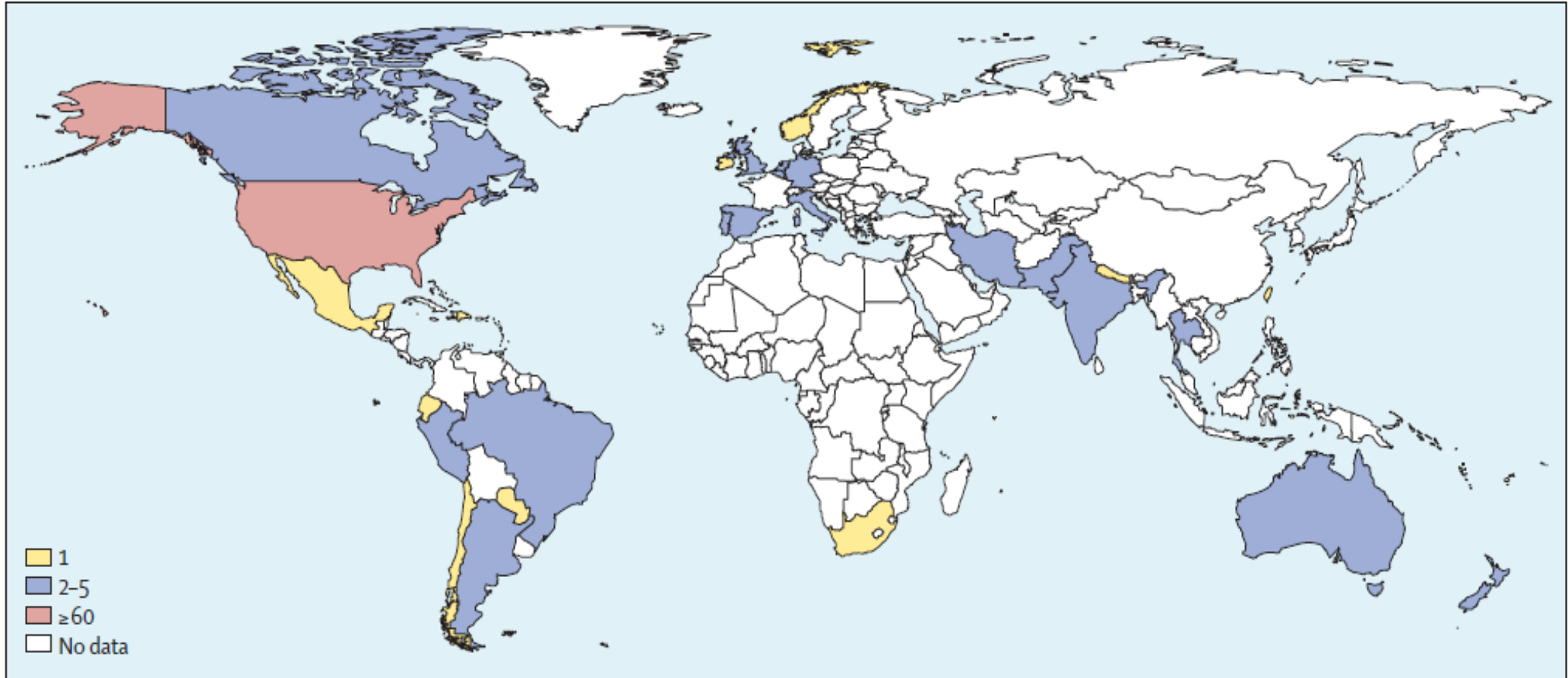


Figure 1: Distribution of 116 studies about transgender health

**Reisner SL et al: Global health burden and needs of transgender populations: a review.  
Lancet 2016; 388: 412-36.**

# Studien Transgender

---



Figure 2: Number of studies about transgender health published per year

Reisner SL et al: Global health burden and needs of transgender populations: a review.  
Lancet 2016; 388: 412-36.

# Studien Transgender

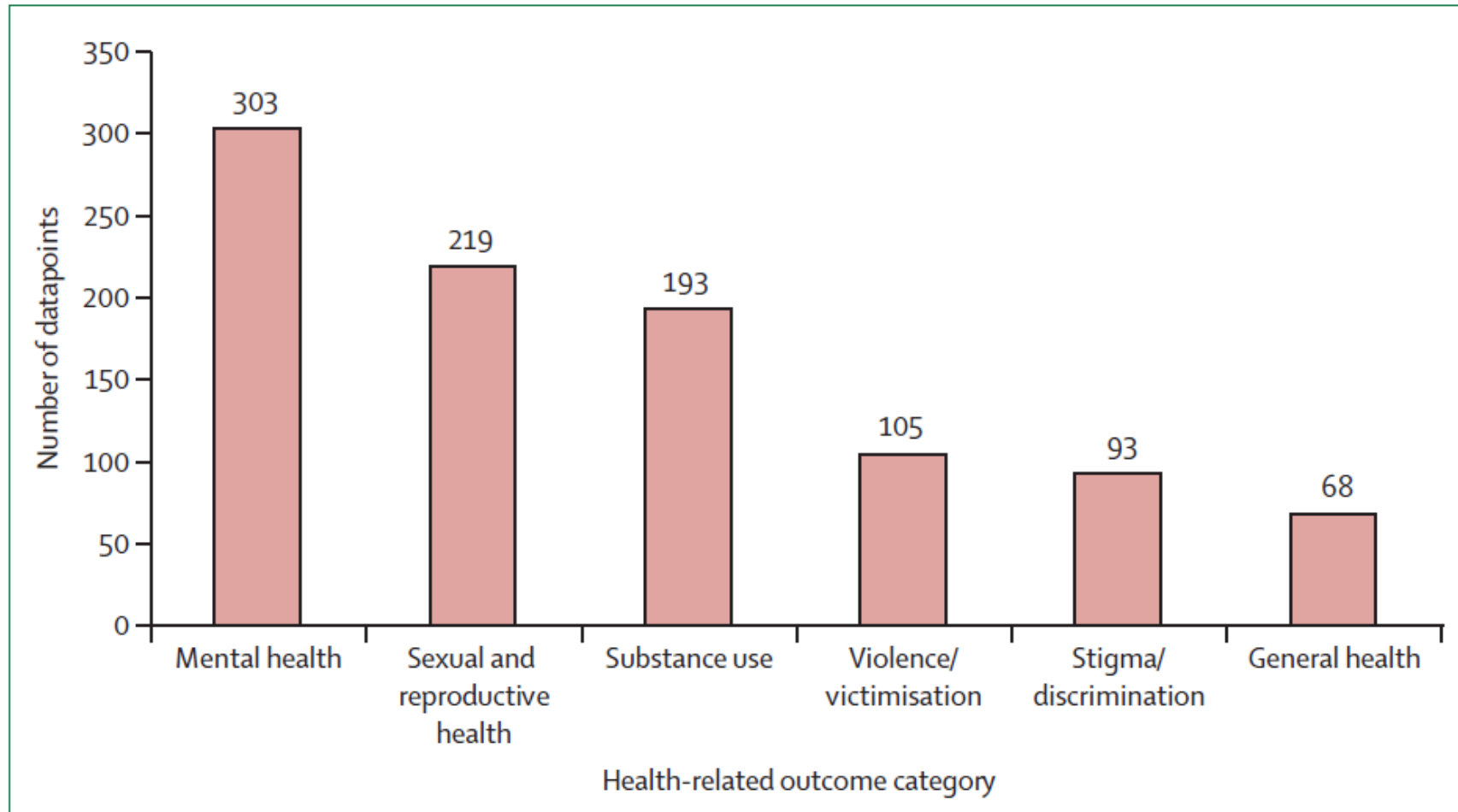
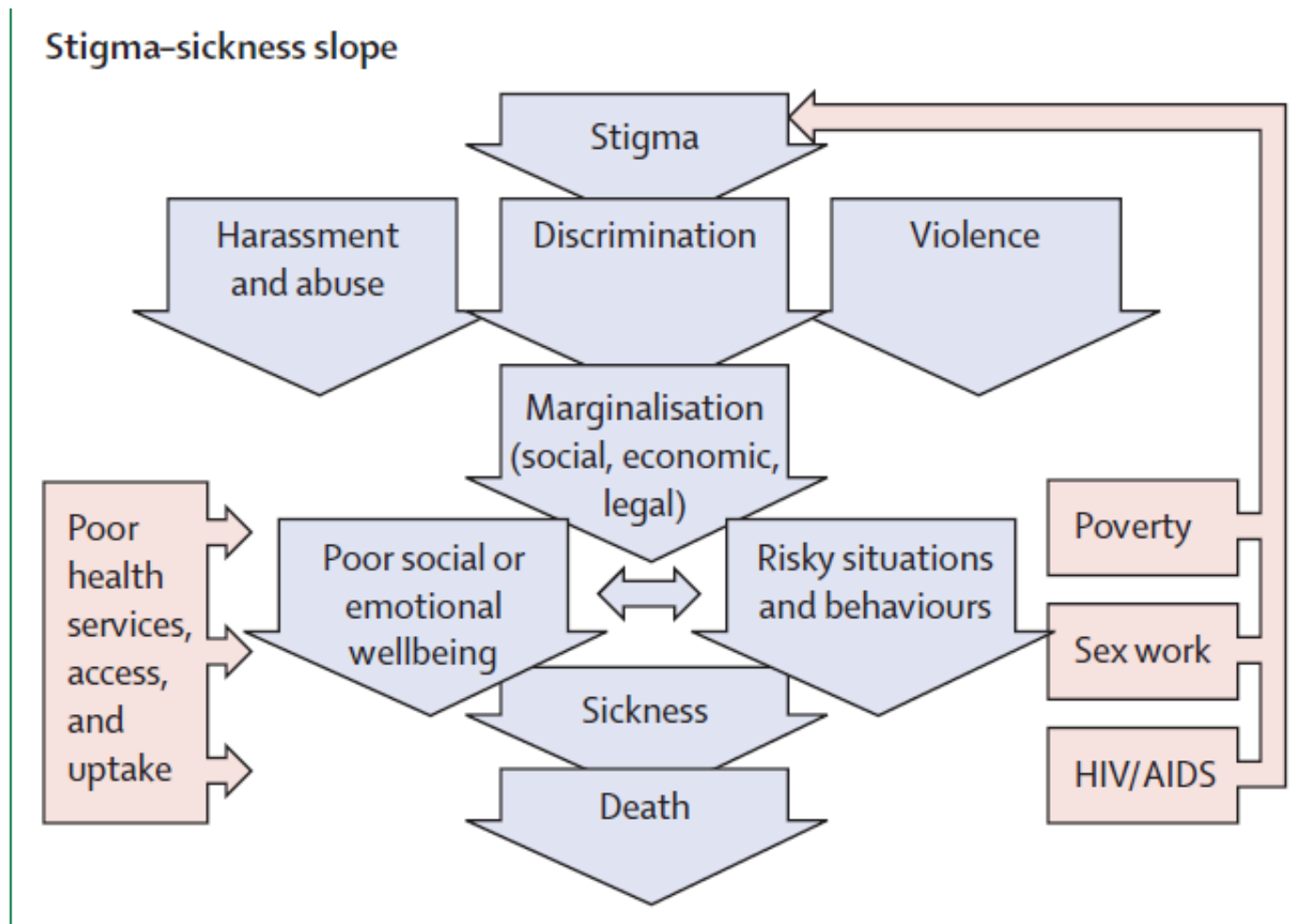


Figure 4: Distribution of 981 datapoints from research about transgender health, grouped by six health-related outcome categories

**Reisner SL et al: Global health burden and needs of transgender populations: a review. Lancet 2016; 388: 412-36.**

# Studien Transgender



*Figure: The stigma-sickness slope*

Reproduced with permission from United Nations Development Programme.<sup>62</sup>

**Winter S et al: Serving transgender people: clinical care considerations and service delivery models in transgender health. Lancet 2016; 388: 390-400.**

# Behandlungsphasen Transsexualismus (ICD-10 F64.0)

---

## **Richtlinie des GKV-Spitzenverbandes zur Sicherung einer einheitlichen Begutachtung nach Paragraph 282, Absatz 2, Satz 3 SGB V**

- 1. Diagnostik**
- 2. a) Psychiatrisch-psychotherapeutische Behandlung/Begleitung**  
**b) Psychiatrisch-psychotherapeutisch begleitete Alltagserprobung**
- 3. Gegengeschlechtliche Hormonbehandlung**
- 4. Operative Geschlechtsangleichung**

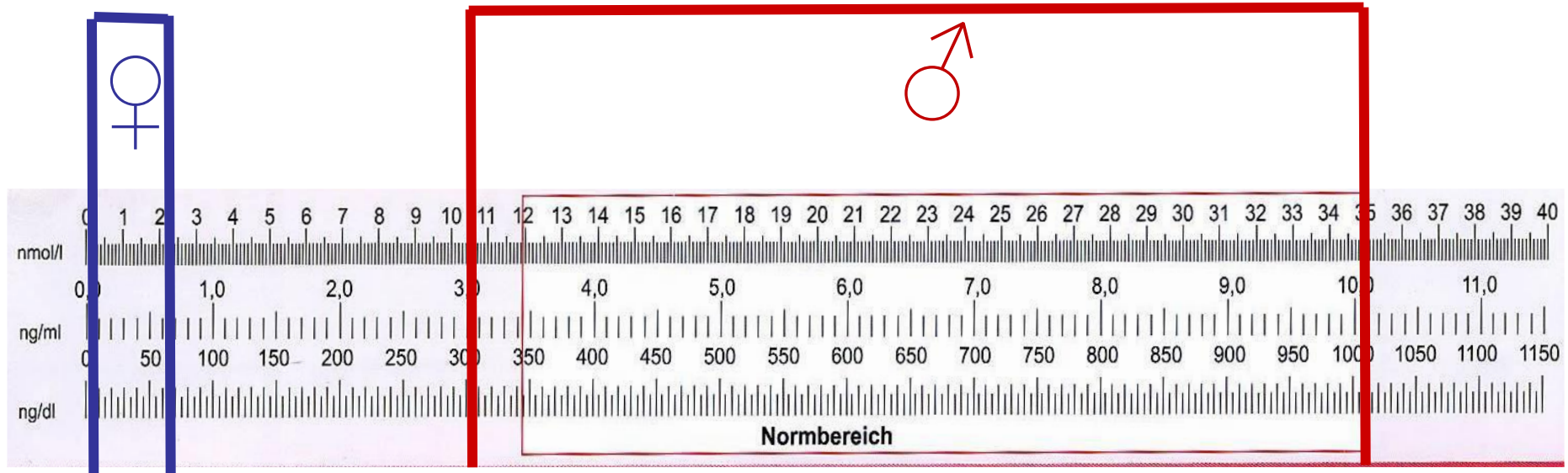
**Pichlo HG:**

**Leistungsrechtliche und sozialmedizinische Kriterien für somatische Behandlungsmaßnahmen bei Transsexualismus: [Neue MDK-Begutachtungsanleitung](#).**

**Blickpunkt der Mann 2010; 8: 21-28**

# FM-Transgender (♀ → ♂): Hormontherapie

1)



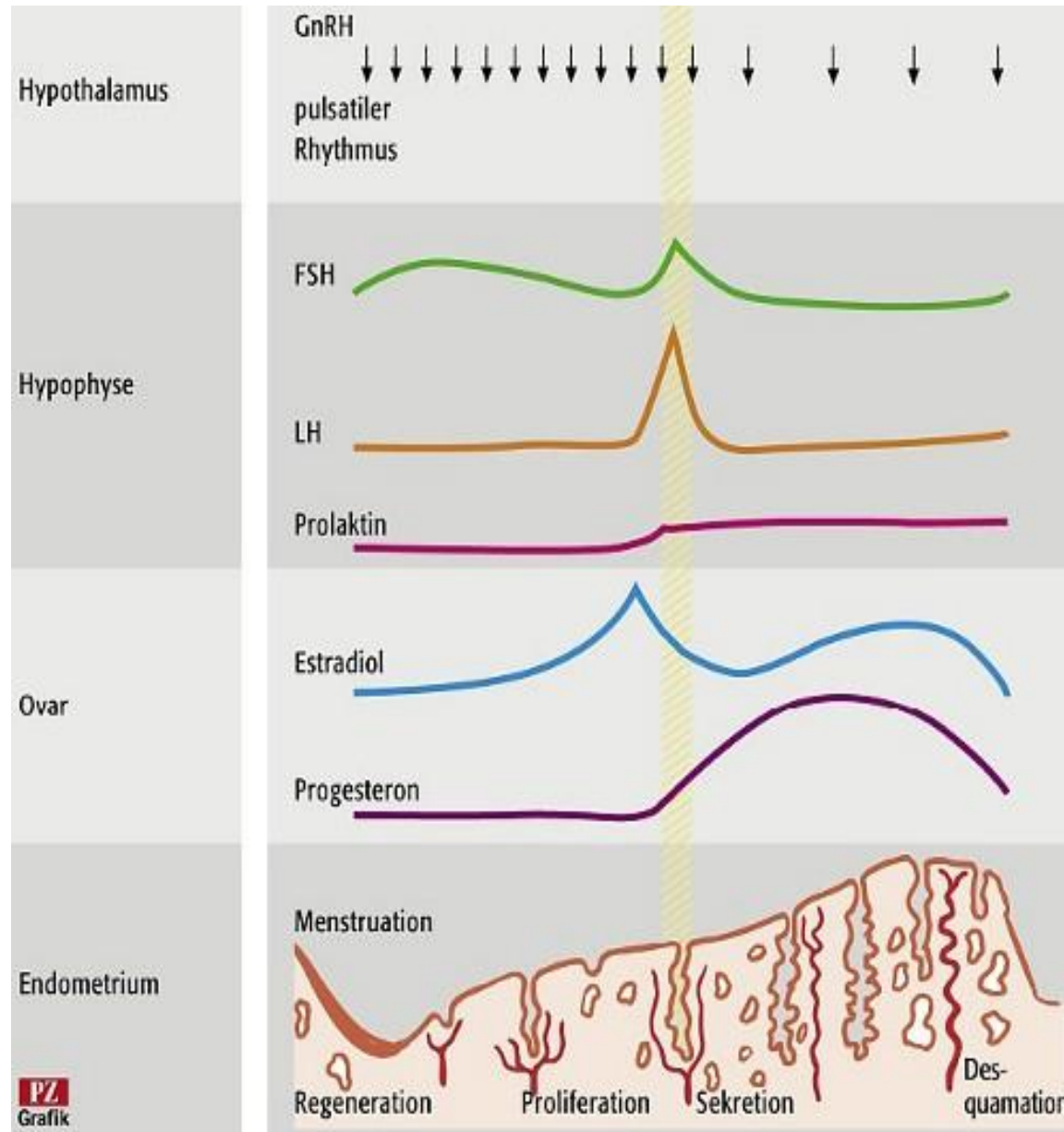
## Testosteron

**Gardner H, Safer JD: Progress on the road to better medical care for transgender patients.**

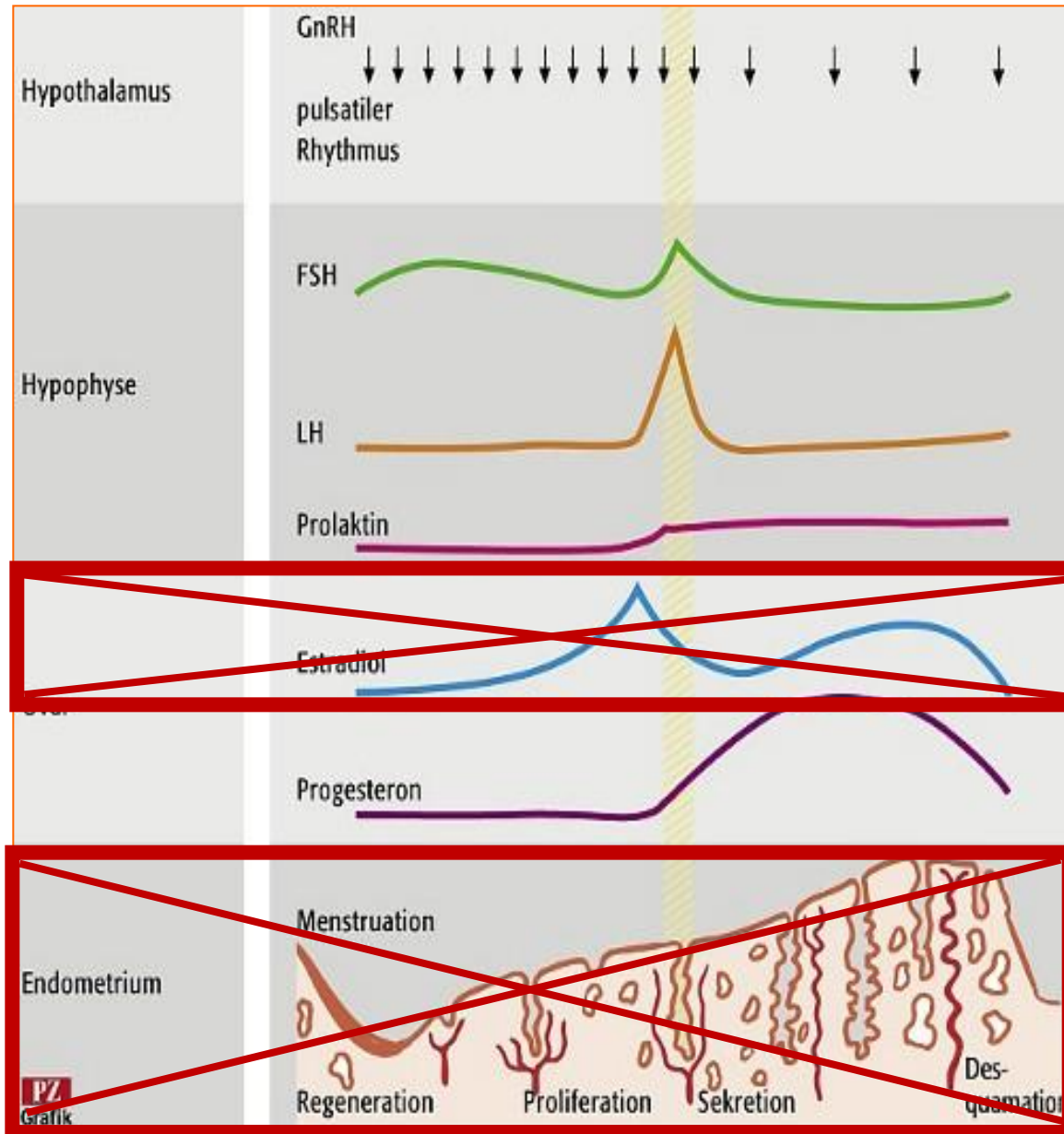
**Curr Opin Endocrinol Diabetes Obes 2013; 20: 553-58.**

**Hembree WC et al: Endocrine treatment of gender-dysphoric/gender-incongruent persons: An endocrine society clinical practice guideline. JCEM 2017; 102: 3869-3903.**

# FM-Transgender (♀ → ♂): Hormontherapie



# FM-Transgender (♀ → ♂): Hormontherapie

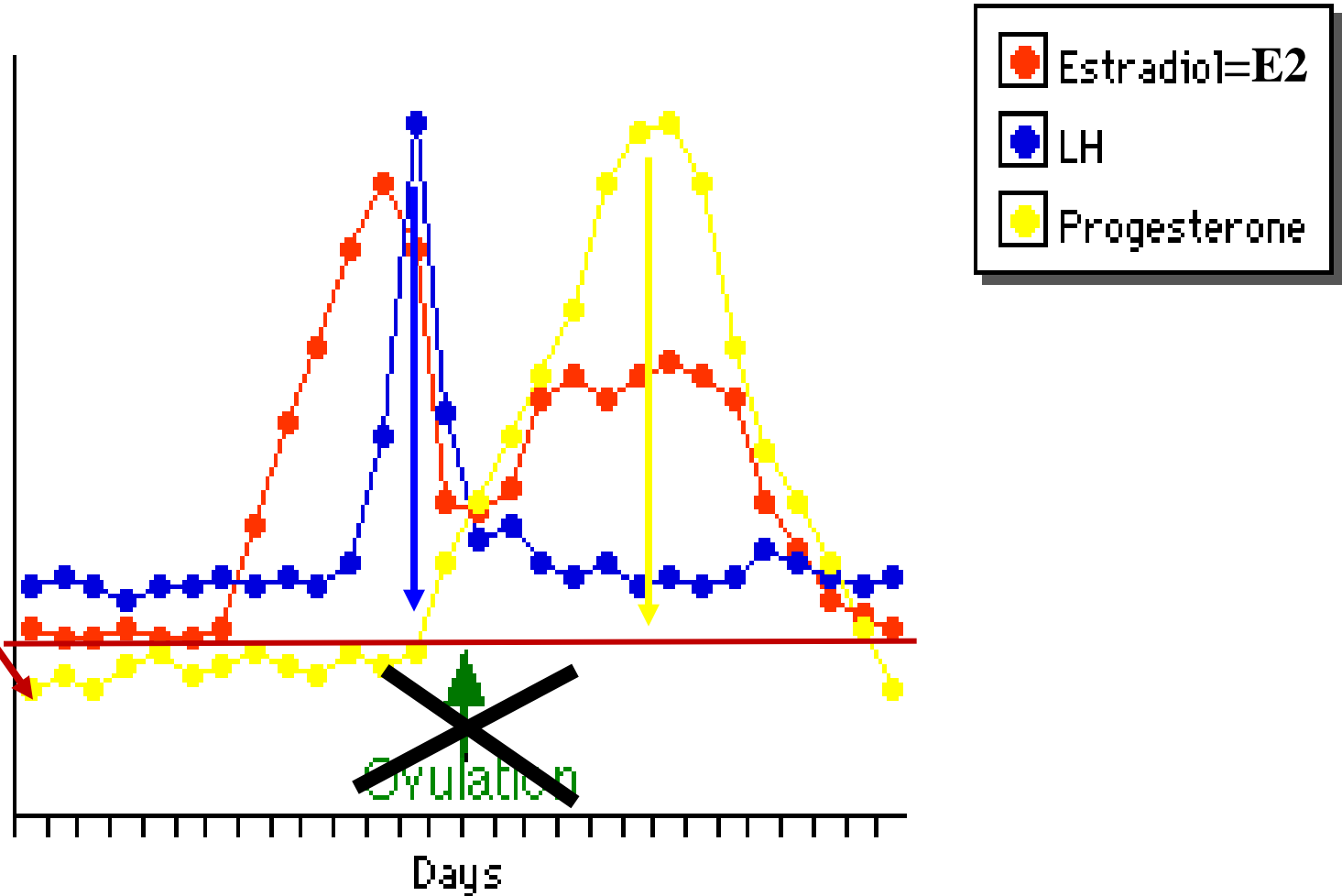




# FM-Transgender (♀ → ♂): Östradiol ↓

2)

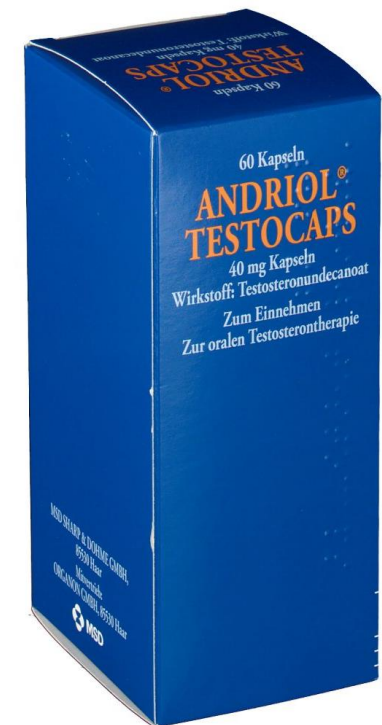
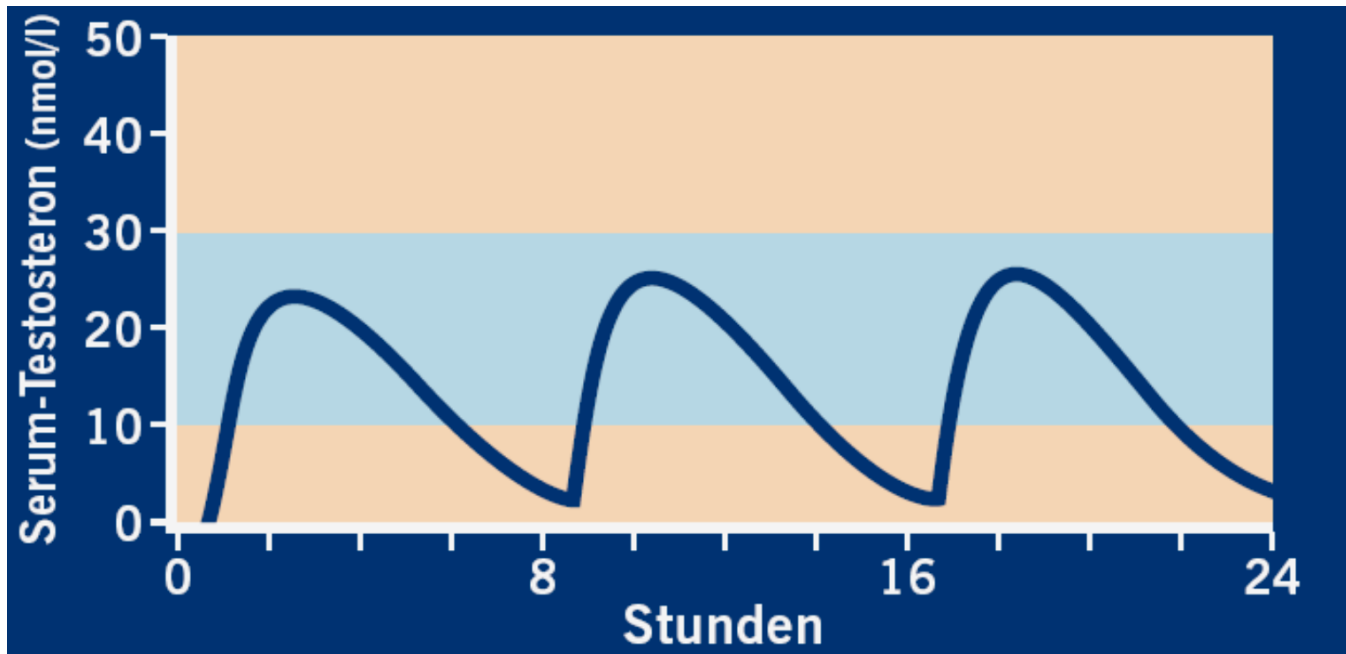
Ziel-E2  
TS ♂ :  
< 45  
pg/ml



⇒ Start der Hormontherapie: 3.-5. Zyklustag

# FM-Transgender (♀ → ♂): Testosteron ↑

- **Orale Medikation (T-Undecanoat = Andriol®)**

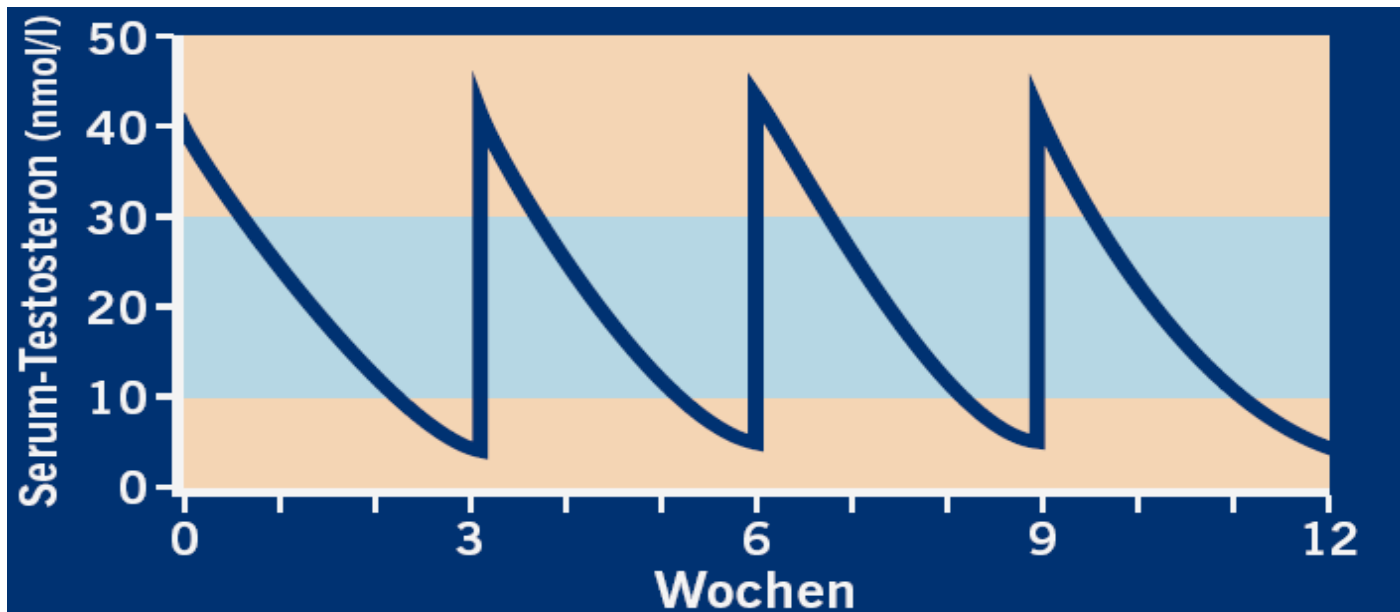


Literatur: z.B. Nieschlag, Clin. Endocrinol. 2006; 65: 275. Popken, Urologe 2010; 49:37-42.

# FM-Transgender (♀ → ♂): Testosteron ↑

- Orale Medikation (T-Undecanoat = Andriol®)
- Intramuskuläre Applikationen

## Testosteron-Enanthat (T-Depot 250mg)



Nieschlag E: Current topics in testosterone replacement of hypogonadal men.  
Best Pract Res Endocrinol Metab 2015; 29: 77-90.

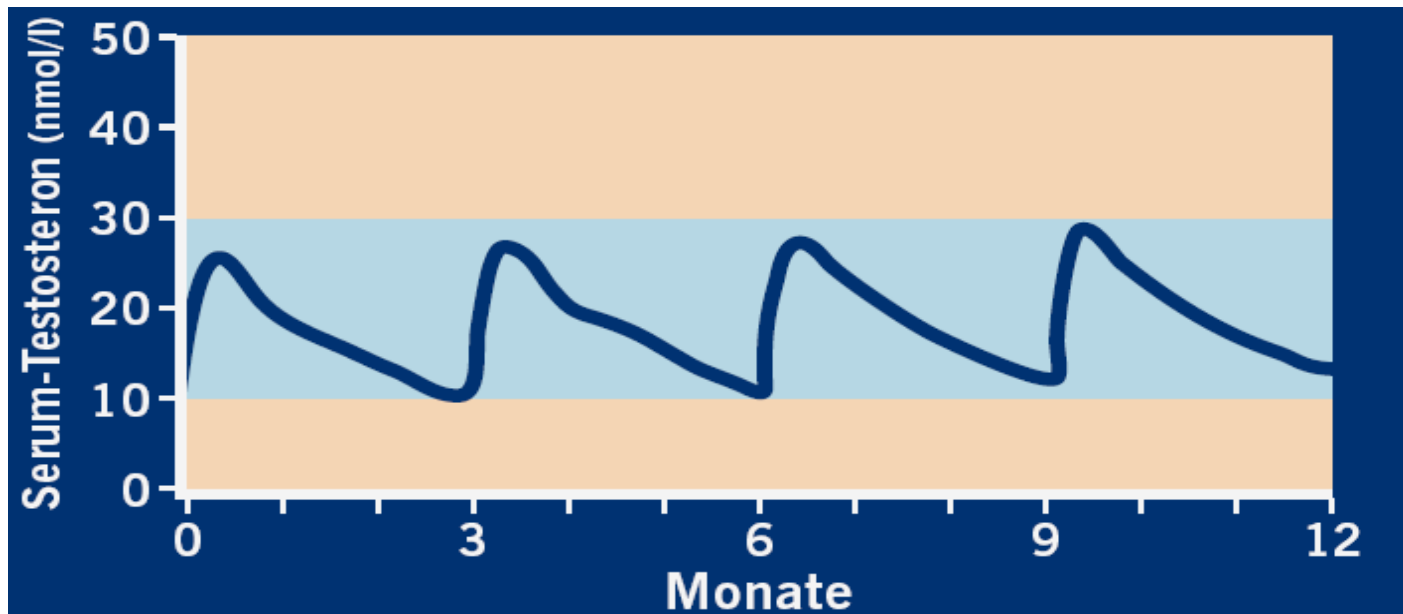


# FM-Transgender (♀ → ♂): Testosteron ↑

- Orale Medikation (T-Undecanoat = Andriol®)
- Intramuskuläre Applikationen

Testosteron-Enanthat (T-Depot 250mg)

Testosteron-Undecanoat (Nebido®)



# FM-Transgender (♀ → ♂): Testosteron ↑

- Orale Medikation (T-Undecanoat = Andriol®)
- Intramuskuläre Applikationen

Testosteron-Enanthat (T-Depot 250mg)

Testosteron-Undecanoat (Nebido®)

FSH, LH ↓



⇒ Gute Blutungskontrolle

# FM-Transgender (♀ → ♂): Testosteron ↑

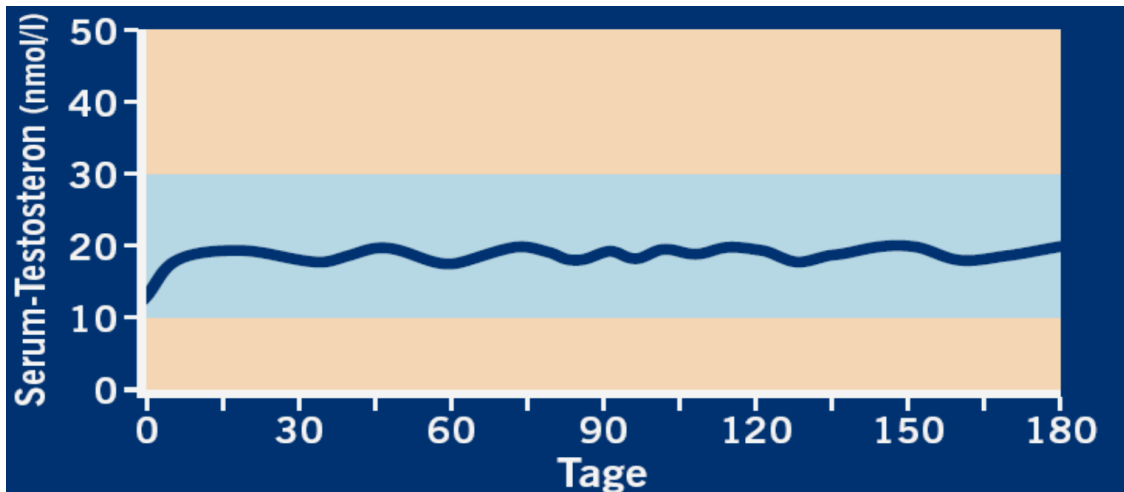
- Orale Medikation (T-Undecanoat = Andriol<sup>®</sup>)
- Intramuskuläre Applikationen

Testosteron-Enanthat (T-Depot 250mg)

Testosteron-Undecanoat (Nebido<sup>®</sup>)

- Transdermale Applikation

Testosteron-Gel (Testim<sup>®</sup>, Testogel<sup>®</sup>, TestotopGel<sup>®</sup>;  
TostranGel<sup>®</sup>; AxironGel<sup>®</sup>)



# FM-Transgender (♀ → ♂): Testosteron ↑

- Transdermale Applikation

Testosteron-Gel ( Testim<sup>®</sup>, Testogel<sup>®</sup>, TestotopGel<sup>®</sup>;  
TostranGel<sup>®</sup>;AxironGel<sup>®</sup>)



# FM-Transgender (♀ → ♂): Testosteron ↑

- Transdermale Applikation

Testosteron-Gel ( Testim<sup>®</sup>, Testogel<sup>®</sup>, TestotopGel<sup>®</sup>;  
TostranGel<sup>®</sup>;AxironGel<sup>®</sup>)



2 Hub



2 Hub



4 Hub



# FM-Transgender (♀ → ♂): Testosteron ↑

---

- Transdermale Applikation

Testosteron-Gel ( Testim<sup>®</sup>, Testogel<sup>®</sup>, TestotopGel<sup>®</sup>;  
TostranGel<sup>®</sup>; AxironGel<sup>®</sup>)

Testosteron-Pflaster (Testopatch<sup>®</sup>)

- Buccale Applikation (Striant<sup>®</sup>)

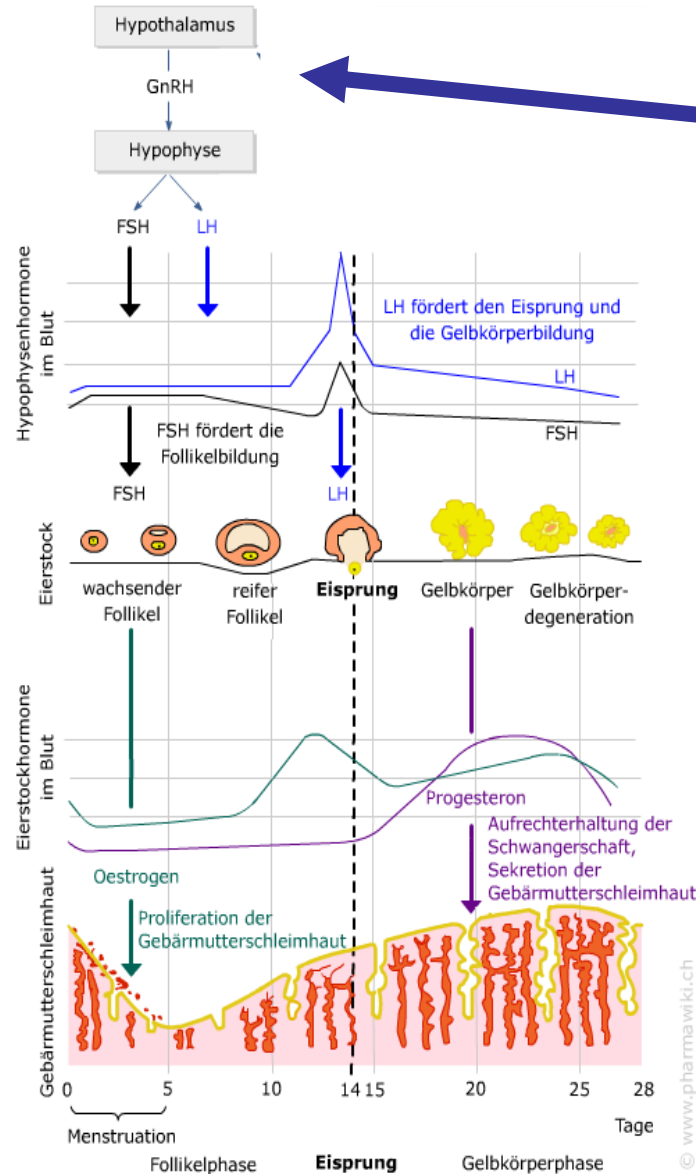


# FM-Transgender (♀ → ♂): Testosteron ↑

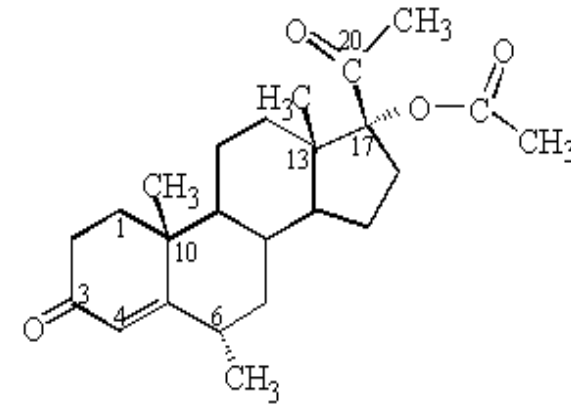
---

- **Orale Medikation (T-Undecanoat = Andriol<sup>®</sup>)**
- **Intramuskuläre Applikationen**
  - Testosteron-Enanthat (T-Depot 250mg)
  - Testosteron-Undecanoat (Nebido<sup>®</sup>)**
- **Transdermale Applikation**
  - Testosteron-Gele**
  - Testosteron-Pflaster (Testopatch<sup>®</sup>)
- **Buccale Applikation (Striant<sup>®</sup>)**

# FM-Transgender (♀ → ♂): Östradiol ↓, Zyklus ↓↓



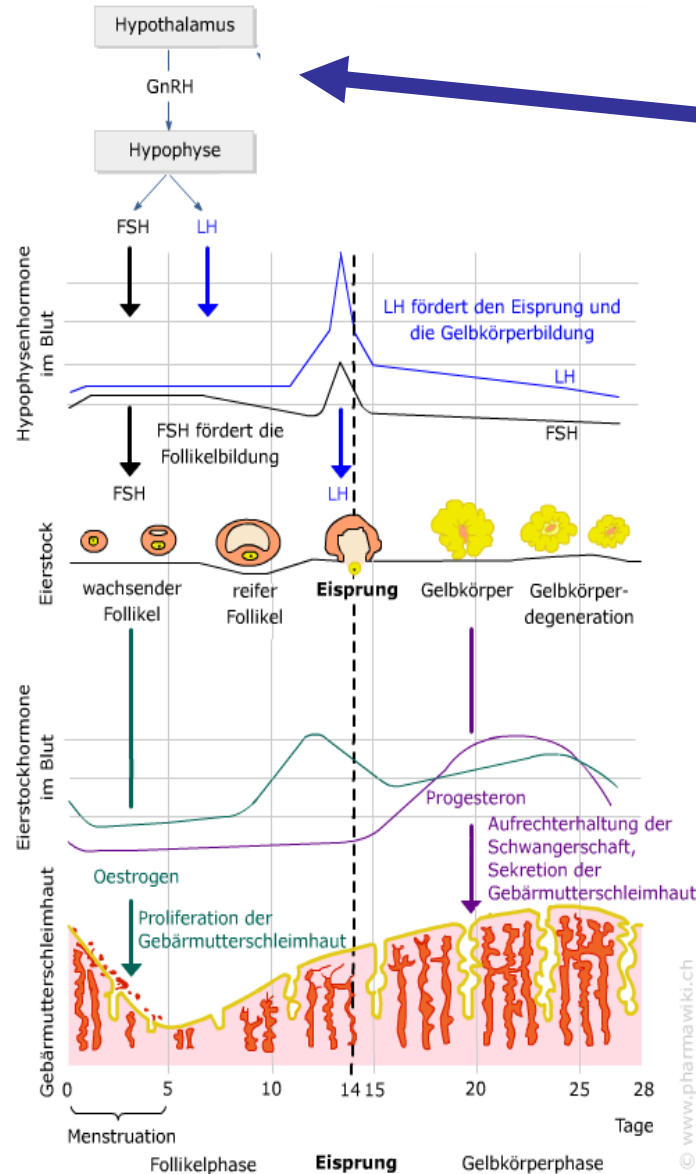
**150 – 300 mg MPA  
alle 3 Monate i.m.  
(1- 2 Amp. Depo-Clinovir<sup>R</sup>)**



Medroxyprogesteronacetat MPA  
(MPA, 17 $\alpha$ -Acetoxy-6 $\alpha$ -methyl-4-pregnen-3,20-dion)

**Alternativ:  
5 – 10 mg MPA oral tgl.  
(1- 2 Tbl. MPA Gyn 5<sup>R</sup>/Tag)**

# FM-Transgender (♀ → ♂): Östradiol ↓, Zyklus ↓↓



**Leuprorelin  
(Trenantone<sup>R</sup>)  
i.m. alle 3 Monate**

# FM-Transgender (♀ → ♂): Hormontherapie

---

**1) Nebido<sup>®</sup> alle 12 Wochen i.m.**

**Alternativ: Testosterongel 1-2 Beutel/Tag transdermal**

**2) Depo-Clinovir<sup>®</sup> 1-2 Ampullen alle 12 Wochen i.m.**

**Alternativ: Trenantone<sup>®</sup> i.m. alle 12 Wochen**

**2) ⇒ kann oft nach 3-6 Monaten beendet werden, insbesondere unter Nebido**

**Dosierungen nach Hormonspiegeln und Wohlbefinden (keine Überdosierungen)!**

# FM-Transgender (♀ → ♂): Hormontherapie

---

**Nebido<sup>®</sup> alle 12 Wochen i.m.**

**Alternativ: Testosterongel 1-2 Beutel/Tag transdermal**

**Empfehlung:**

**Innerhalb 24 Monaten vaginale Hysterektomie  
und Adnexektomie\* , Mastektomie**

\* Kaiser et al. Vaginale Hysterektomie und beidseitige Adnexektomie in interdisziplinärem Konzept bei Frau zu Mann – Transsexualismus. Handchir Mikrochir Plast Chir 2011; 43:240-45.

# FM-Transgender (♀ → ♂): Hormontherapie

---

## Zeitverlauf der Effekte der Hormontherapie

**Innerhalb ersten 3 Monate**

**Hautfettung ↑, Akne  
Körperfett-Umverteilung  
Amenorrhoe**

**Nach 3 – 6 Monaten**

**Klitoris ↑  
Vaginalatrophie**

**Nach 6 Monaten**

**Körper-, Gesichtsbehaarung ↑  
Kopfhaar ↓  
Muskelmasse und -kraft ↑  
Stimmbruch**

**Knezevich EL et al.: Medical management of adult transsexual persons.  
Pharmacotherapy 2012; 32: 54-66.**

# FM-Transgender (♀ → ♂): Monitoring

---

<b>Basislabor/ -diagnostik</b>	<b>Blutfette, Lipide, Blutbild, Leberwerte, RR, BMI; Östradiol, Testosteron, Prolaktin; Chromosomen, FSH, LH, 17OH-P, DHEAS, DHT DXA-Messung (bei Osteoporose-Risiko) Thrombophilie-Screening (bei Thrombose-Risiko)</b>
<b>Im ersten Jahr alle 2-3 Monate</b>	<b>Blutfette, Lipide, <b>Blutbild</b>, Leberwerte, RR, BMI; Östradiol, Testosteron, DHT, LH</b>
<b>Nach 1 Jahr alle 6 Monate</b>	<b>Blutfette, Lipide, Blutbild, Leberwerte, RR, BMI; Östradiol, Testosteron, LH; CA 12-5*, 15-3*</b>
<b>Zusätzlich</b>	<b>Untersuchung von Brust* und gynäkologische Untersuchung (Endometrium, Ovar)*</b>

**\* Wenn keine OPs!**



# MF-Transgender (♂ → ♀): Hormontherapie

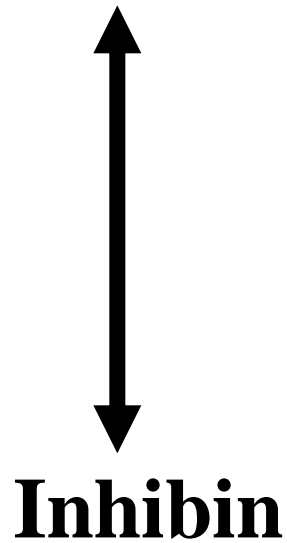
---

**FSH**

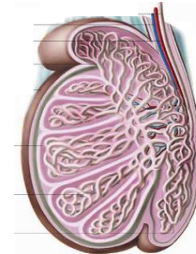
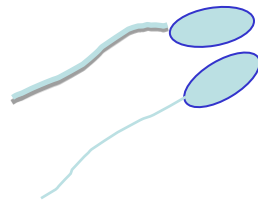


Hypophyse

**LH**

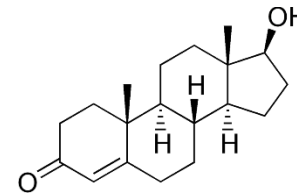


**Inhibin**

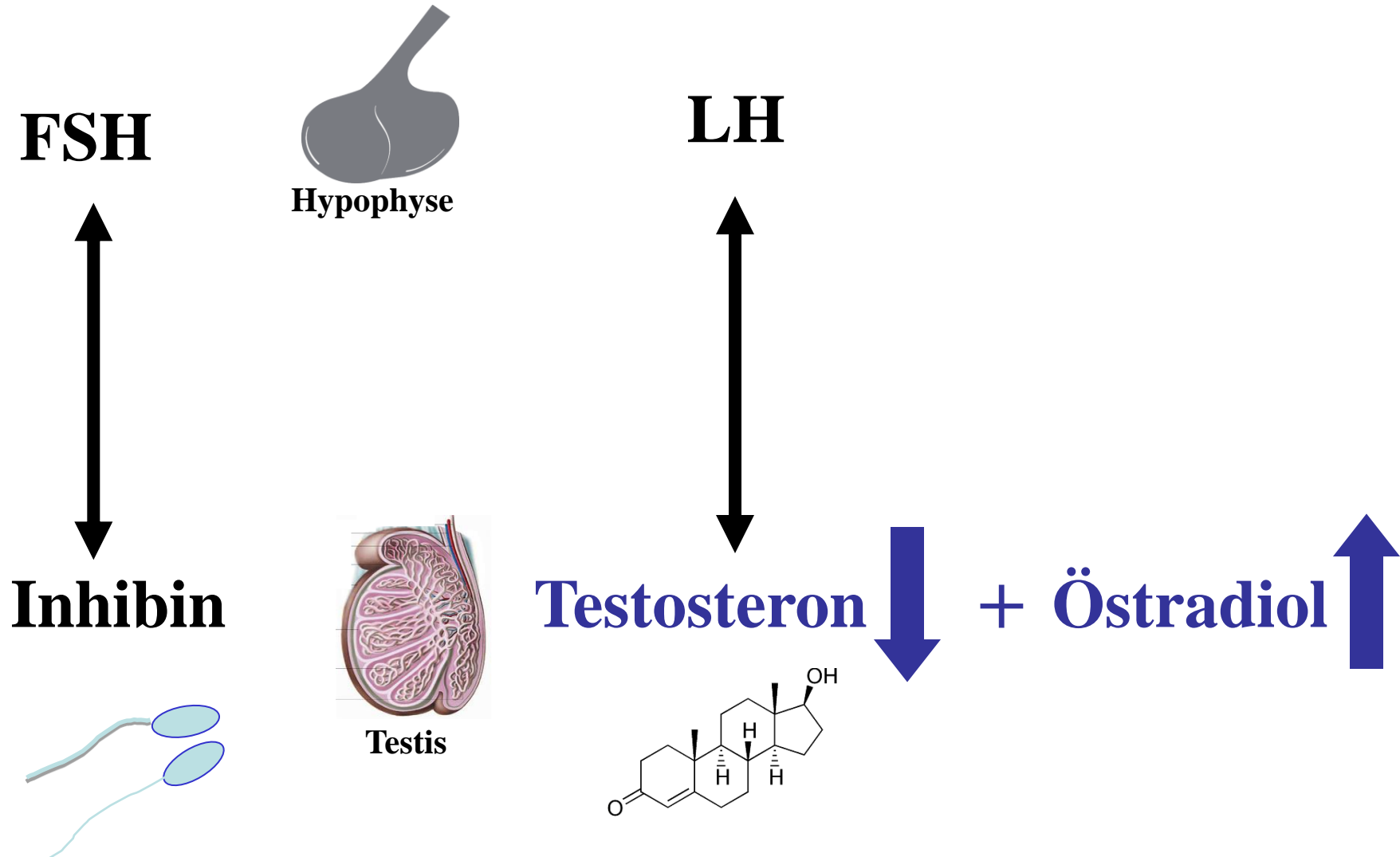


Testis

**Testosteron**

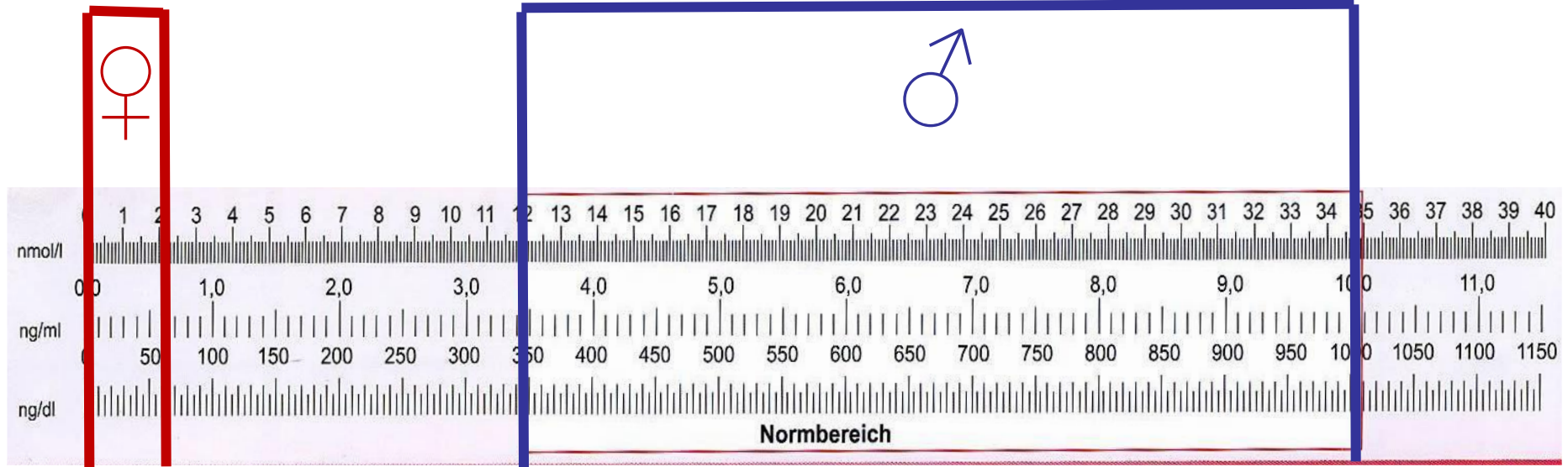


# MF-Transgender (♂ → ♀): Hormontherapie

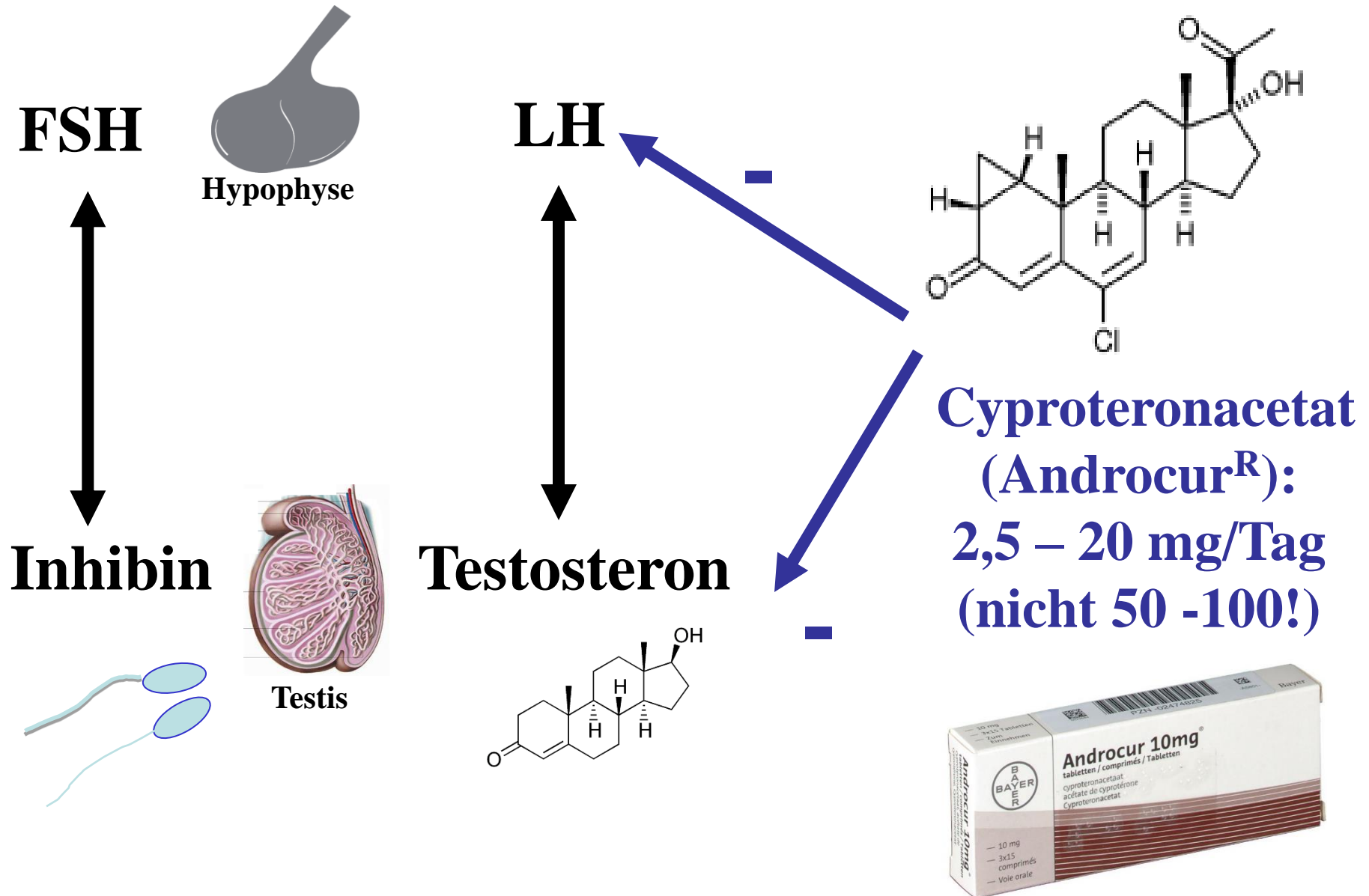


# MF-Transgender (♂ → ♀): Testosteron ↓

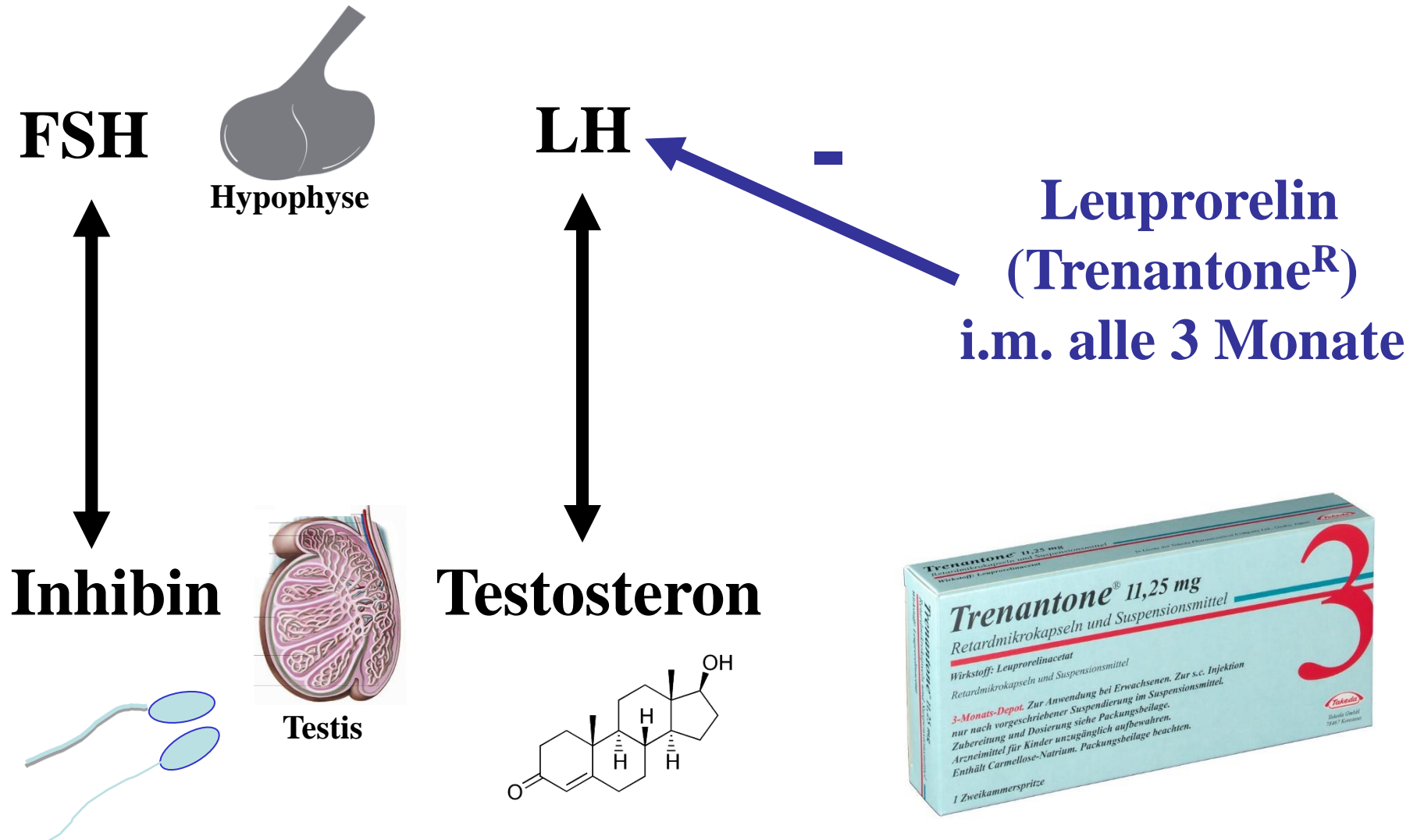
1)



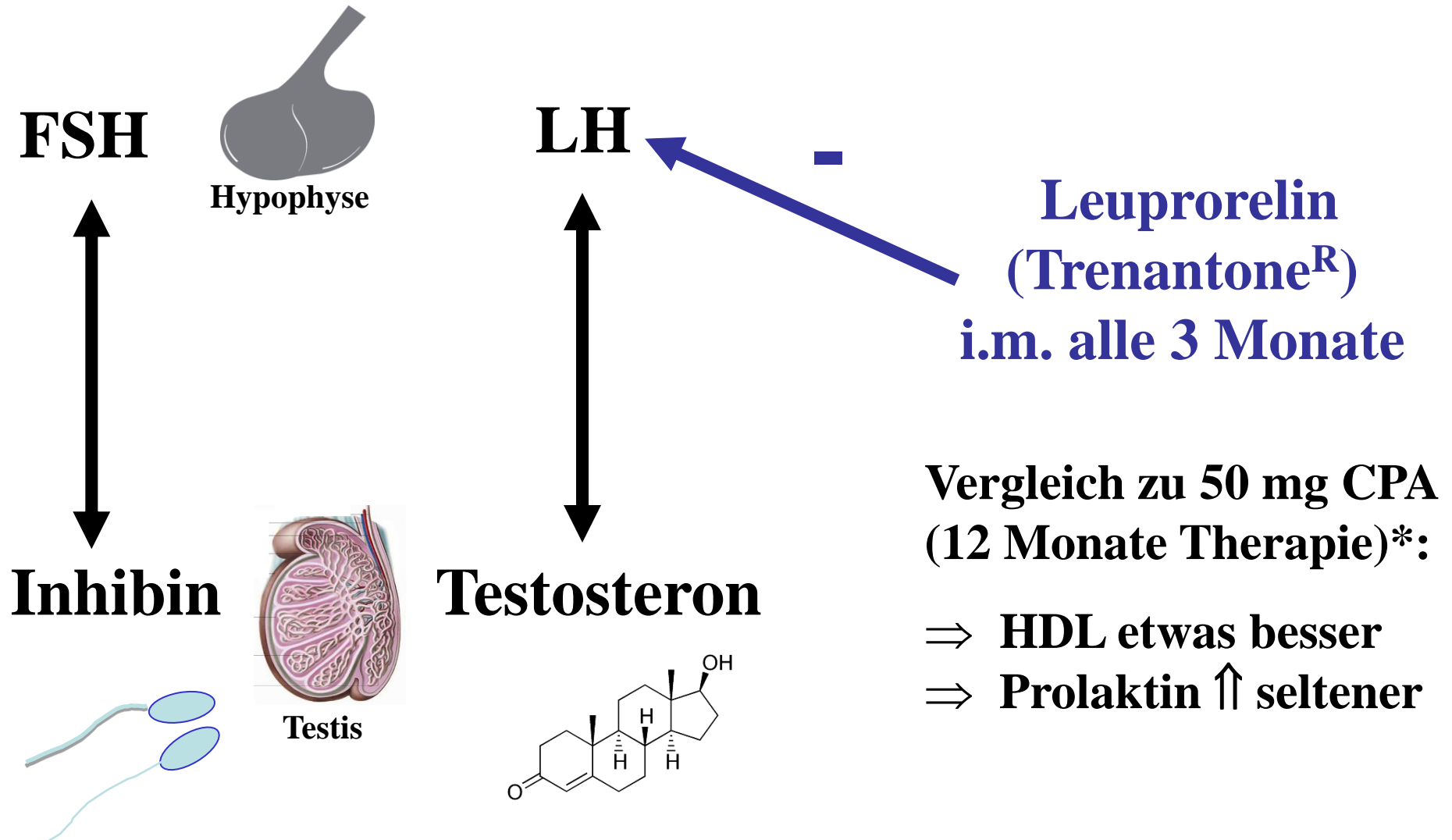
# MF-Transgender (♂ → ♀): Testosteron ↓



# MF-Transgender (♂ → ♀): Testosteron ↓



# MF-Transgender (♂ → ♀): Testosteron ↓

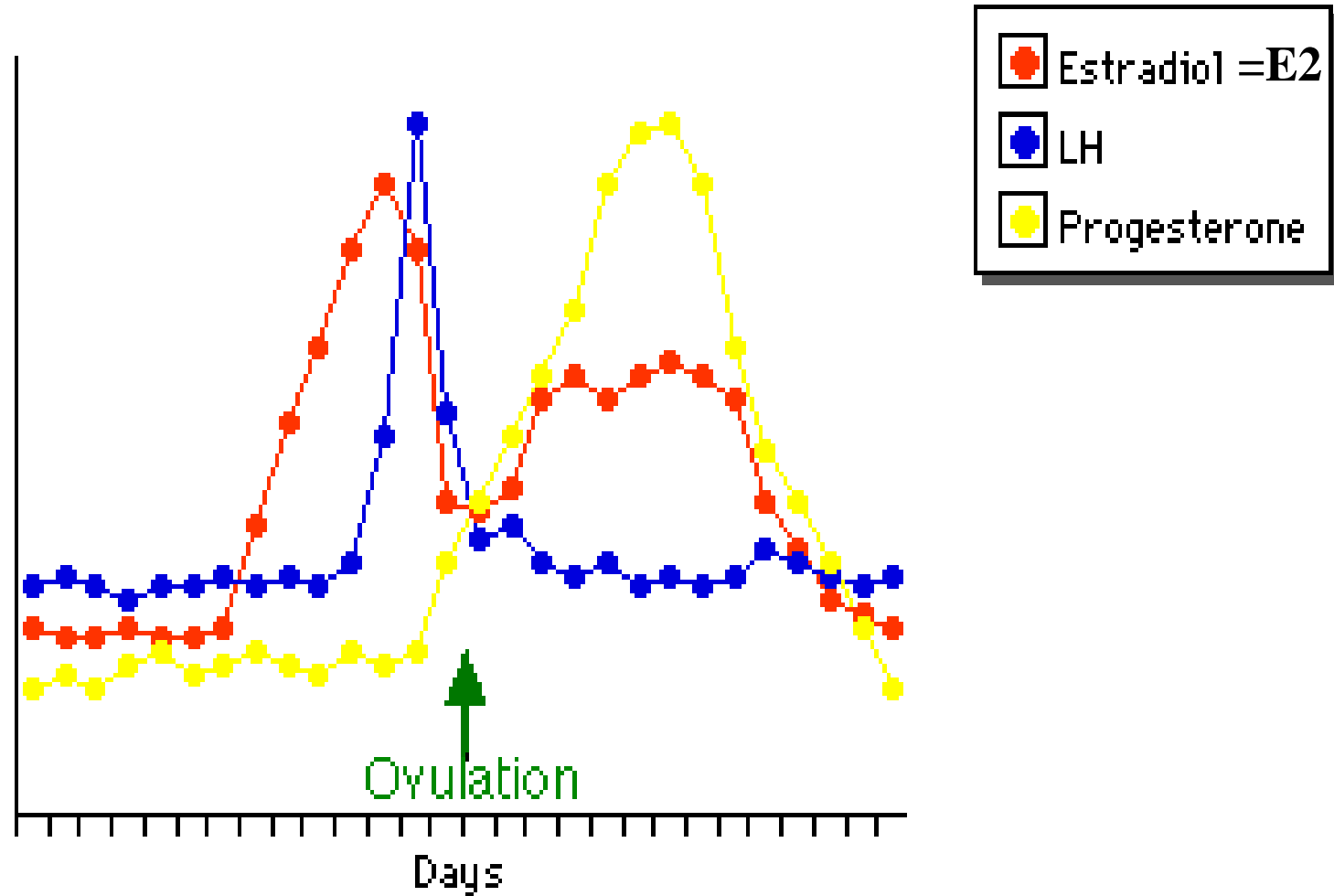


\*Gava et al: Cyproterone acetate vs leuprolide acetate in combination with transdermal oestradiol in transwomen: A comparison of safety and effectiveness. Clin Endocrinol 2016; 85: 239-46.

# MF-Transgender (♂ → ♀): Östradiol ↑

E2 ♀:  
0 - 400  
pg/ml

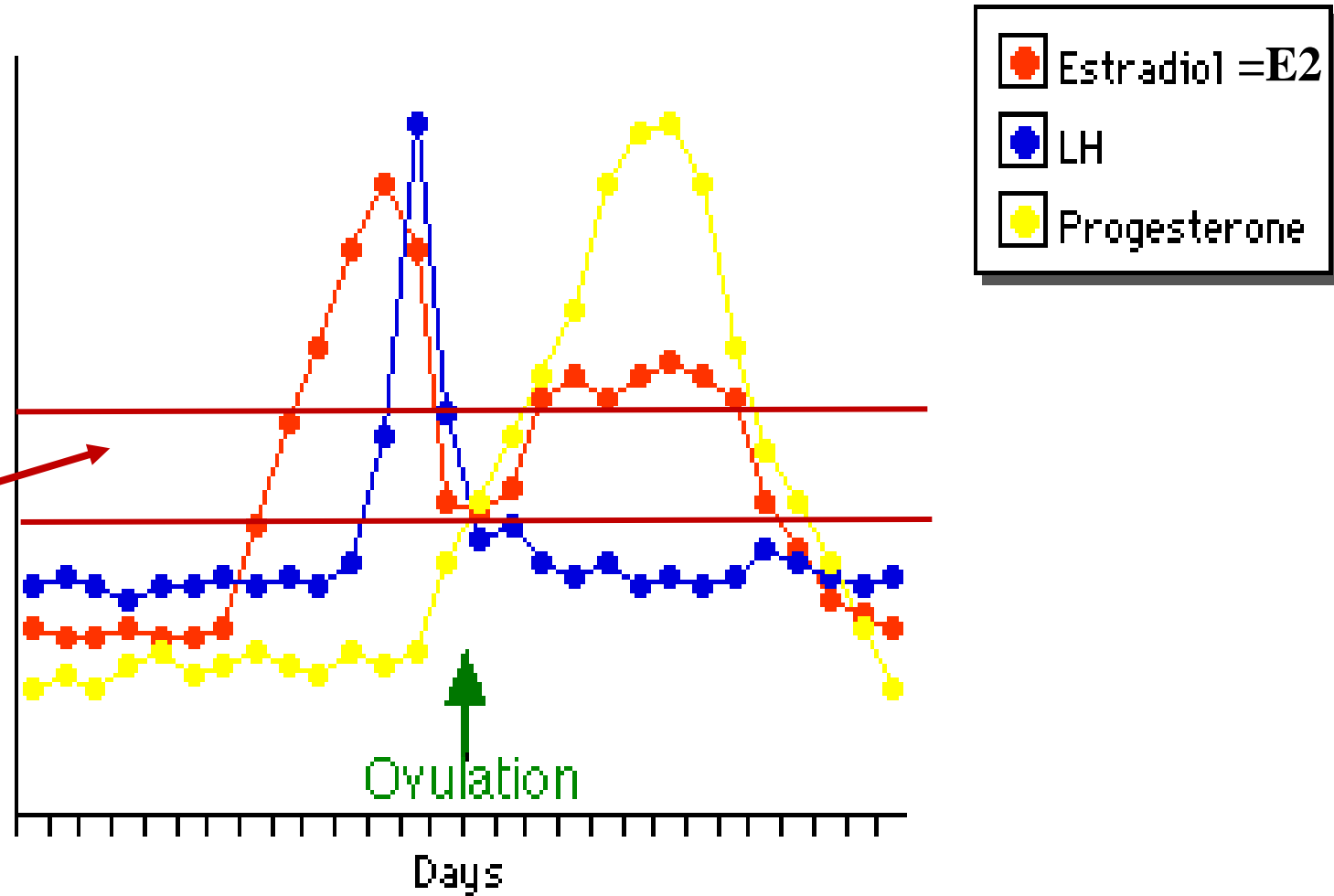
E2 ♂:  
< 45  
pg/ml



# MF-Transgender (♂ → ♀): Östradiol ↑↑

2)

Ziel-E2  
TS ♀:  
70 - 200  
pg/ml





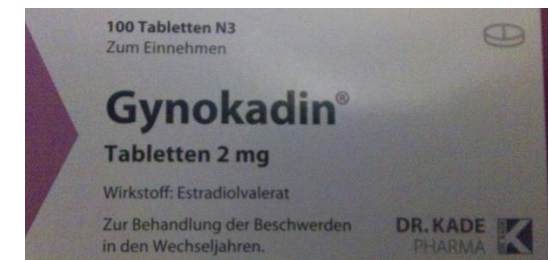
# MF-Transgender (♂ → ♀): Hormontherapie

## 2)a) Oral:

### Estradiol (E2) 2 – 6 mg/d



### Estradiolvalerat 2 – 8 mg/d (2mg = 1,53 mg E2)



(keine Pille ! unter EE 20 fach ↑Thromboserisiko; konjugierte Östrogene eher nicht mehr...Presomen, Climopax)

# MF-Transgender (♂ → ♀): Hormontherapie

## 2)a) Transdermal: Gele



**1 Hub =  
0,5mg  
Estradiol  
→ 3 – 8 Hub**



**1 Hub =  
0,75mg  
Estradiol  
→ 2 – 6 Hub**

## Pflaster

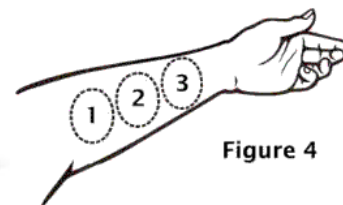


**25/50/75/100  
→ 2/Woche**



**50/75/100  
→ 1/Woche**

## Spray



**1 Sprühstoß =  
1,53mg  
Estradiol  
→ 2 – 3 Sprühstöße**

# MF-Transgender (♂ → ♀): Hormontherapie

---

## 1) Androcur<sup>®</sup> (CPA) 2,5 - 20 mg/d

Alternativ: Trenantone<sup>®</sup> i.m. alle 3 Monate

Spironolacton 100 - 200 mg/ d - ggf. bei Hypertonus

## 2) Estradiol

**oral:** 2 – 6 mg/d, Estradiolvalerat 2 – 8 mg/d

**transdermal\*:** Gel 2- 8 Hub/d

Pflaster 1 oder 2 pro Woche

Spray 1 - 3 Sprühstösse/d

Dosierungen nach Hormonspiegeln und Wohlbefinden (keine Überdosierungen)!

Keine Indikation für Progesteron, weder prä- noch postoperativ!

Einfache Umrechnung zwischen transdermal und oral aber nicht möglich!

\*Sicher kein Thromboserisiko !!

# MF-Transgender (♂ → ♀): Hormontherapie

---

## Zeitverlauf der Effekte der Hormontherapie

**Innerhalb ersten 3 Monate**

**Spontane Erektionen ↓  
Libido ↓**

**Nach 3 – 6 Monaten**

**Körperfett-Umverteilung  
Muskelmasse und -kraft ↓  
Hautfettung ↓, weichere Haut  
Brustwachstum  
Hodenvolumen ↓**

**Nach 6 Monaten**

**Gesichts-, Körperbehaarung ↓  
Spermproduktion ↓  
Sexuelle Dysfunktion**

**Knezevich EL et al.: Medical management of adult transsexual persons.  
Pharmacotherapy 2012; 32: 54-66.**

# MF-Transgender (♂ → ♀): Hormontherapie

---

## Zeitverlauf der Effekte der Hormontherapie

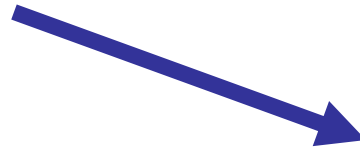
**Innerhalb ersten 3 Monate**

**Spontane Erektionen ↓  
Libido ↓**

**Nach 3 – 6 Monaten**

**Körperfett-Umverteilung  
Muskelmasse und -kraft ↓  
Hautfettung ↓, weichere Haut  
Brustwachstum  
Hodenvolumen ↓**

**Epilation!**



**Nach 6 Monaten**

**Gesichts-, Körperbehaarung ↓  
Spermproduktion ↓  
Sexuelle Dysfunktion**

# MF-Transgender (♂ → ♀): Monitoring

---

<b>Basislabor/ -diagnostik</b>	<b>Blutfette, Lipide, Blutbild, Leberwerte, RR, BMI; Östradiol, Östron, Testosteron, Prolaktin, PSA; Chromosomen, FSH, LH, 17OH-P, DHEAS, DHT Elektrolyte (bei Spironolacton) DXA-Messung (bei Osteoporose-Risiko) Thrombophilie-Screening (bei Thrombose-Risiko)</b>
<b>Im ersten Jahr alle 2-3 Monate</b>	<b>Blutfette, Lipide, Blutbild, Leberwerte, RR, BMI; Östradiol, Östron, Testosteron, Prolaktin*, PSA</b>
<b>Nach 1 Jahr alle 6 Monate</b>	<b>Blutfette, Lipide, Blutbild, Leberwerte, RR, BMI; Östradiol, Östron, Testosteron, Prolaktin, PSA</b>
<b>Zusätzlich</b>	<b>Untersuchung von Brust und Prostata</b>

# Transgender (♀ ↔ ♂): Risiken der Hormontherapie

---

## 1) Thromboserisiko/Kardiovaskuläres Risiko:

- **Thromboserisiko eher bei M♂ → F♀, bei transdormaler E2-Gabe zu vernachlässigen<sup>1,2</sup>**
- Pausieren um Operationen?
- evtl. Faktor V-/ Prothrombin-Mutation testen (Risiko?)

1) Elamin MB et al: Effect of sex steroid use on cardiovascular risk in transsexual individuals: a systematic review and meta-analyses. Clin Endocrinol 2010, 72; 1-10.

2) Ott J et al: Incidence of thrombophilia and venous thrombosis in transsexuals under cross-sex hormone therapy. Fertil Steril 2010; 93: 1267-72.

# Transgender (♀ ↔ ♂): Risiken der Hormontherapie

---

## 1) Thromboserisiko/Kardiovaskuläres Risiko:

- **Thromboserisiko eher bei M♂ → F♀, bei transdormaler E2-Gabe zu vernachlässigen<sup>1,2</sup>**
- Pausieren um Operationen
- evtl. Faktor V-/ Prothrombin-Mutation testen (Risiko?)
- **Kardiovaskuläres Risiko: bei beiden Richtungen keine Hinweise, evtl. bei M♂ → F♀ protektiv?<sup>3</sup>**

1) Elamin MB et al: Effect of sex steroid use on cardiovascular risk in transsexual individuals: a systematic review and meta-analyses. Clin Endocrinol 2010, 72; 1-10.

2) Ott J et al: Incidence of thrombophilia and venous thrombosis in transsexuals under cross-sex hormone therapy. Fertil Steril 2010; 93: 1267-72.

3) Bazarra-Castro et al.: Comorbidities in transsexual patients under hormonal treatment compared to age- and gender-matched primary care comparison groups. Reproductive Sys Sexual 2012; 1:1-4.



# Transgender (♀ ↔ ♂): Risiken der Hormontherapie

---

## 1) Thromboserisiko/Kardiovaskuläres Risiko:

- Thromboserisiko eher bei  $M_{\text{♂}} \rightarrow F_{\text{♀}}$ , bei transdernaler E2-Gabe zu vernachlässigen
- Kardiovaskuläres Risiko: bei beiden Richtungen keine Hinweise, evtl. bei  $M_{\text{♂}} \rightarrow F_{\text{♀}}$  protektiv

## 2) Hormonabhängige Tumoren<sup>1,2</sup>:

$M_{\text{♂}} \rightarrow F_{\text{♀}}$ :

Prolaktinome; Brustkrebs; Prostatakrebs

$F_{\text{♀}} \rightarrow M_{\text{♂}}$ :

Ovarial-Karzinom; Brustkrebs; Endometrium-Karzinom

- 1) Mueller A, Gooren L: Hormone-related tumors in transsexuals receiving treatment with cross-sex hormones. Eur J Endocrinol 2008, 159; 197-202.
- 2) Bazarra-Castro et al.: Comorbidities in transsexual patients under hormonal treatment compared to age- and gender-matched primary care comparison groups. Reproductive Sys Sexual 2012; 1:1-4.

# Transgender (♀ ↔ ♂): Risiken der Hormontherapie

---

## 2) Hormonabhängige Tumoren<sup>1,2</sup>:

**M♂ → F♀:**

Prolaktinome; Brustkrebs; Prostatakrebs<sup>3</sup>

**F♀ → M♂:**

Ovarial-Karzinom; Brustkrebs<sup>4</sup>; Endometrium-Karzinom

- 1) Mueller A, Gooren L: Hormone-related tumors in transsexuals receiving treatment with cross-sex hormones. Eur J Endocrinol 2008, 159; 197-202.
- 2) Bazarra-Castro et al.: Comorbidities in transsexual patients under hormonal treatment compared to age- and gender-matched primary care comparison groups. Reproductive Sys Sexual 2012; 1:1-4.
- 3) Weyers S et al.: Clinical and transvaginal sonographic evaluation of the prostate in transsexual women. Urology 2009, 74: 191-196.
- 4) Shao et al.: **Breast cancer in female to male transsexuals: two cases with a review of physiology and management.** Clinical Breast Cancer 2011; 11: 417-19.

# Transgender (♀ ↔ ♂): Behandlung in Kindheit

---

**Table 1.** Eligibility and Readiness Criteria ↵

GnRH Agonist “Puberty Suppression”	Cross-Sex Hormones
<ul style="list-style-type: none"><li>• Diagnosis established for gender dysphoria, transgender, transsexualism</li><li>• Physical examination reveals Tanner stage II or greater</li><li>• Pubertal changes worsen gender dysphoria</li><li>• No psychiatric illness that prevents proper diagnosis</li><li>• No psychiatric or medical contraindications to treatment</li><li>• Adequate support (eg, ongoing behavioral health support, family or peer support)</li><li>• Patient demonstrates understanding of diagnosis, treatment, and the risks and benefits of treatment</li></ul>	<p>Testosterone or estrogen</p> <ul style="list-style-type: none"><li>• Fulfill criteria for GnRH agonist</li><li>• 16 years or older</li></ul>

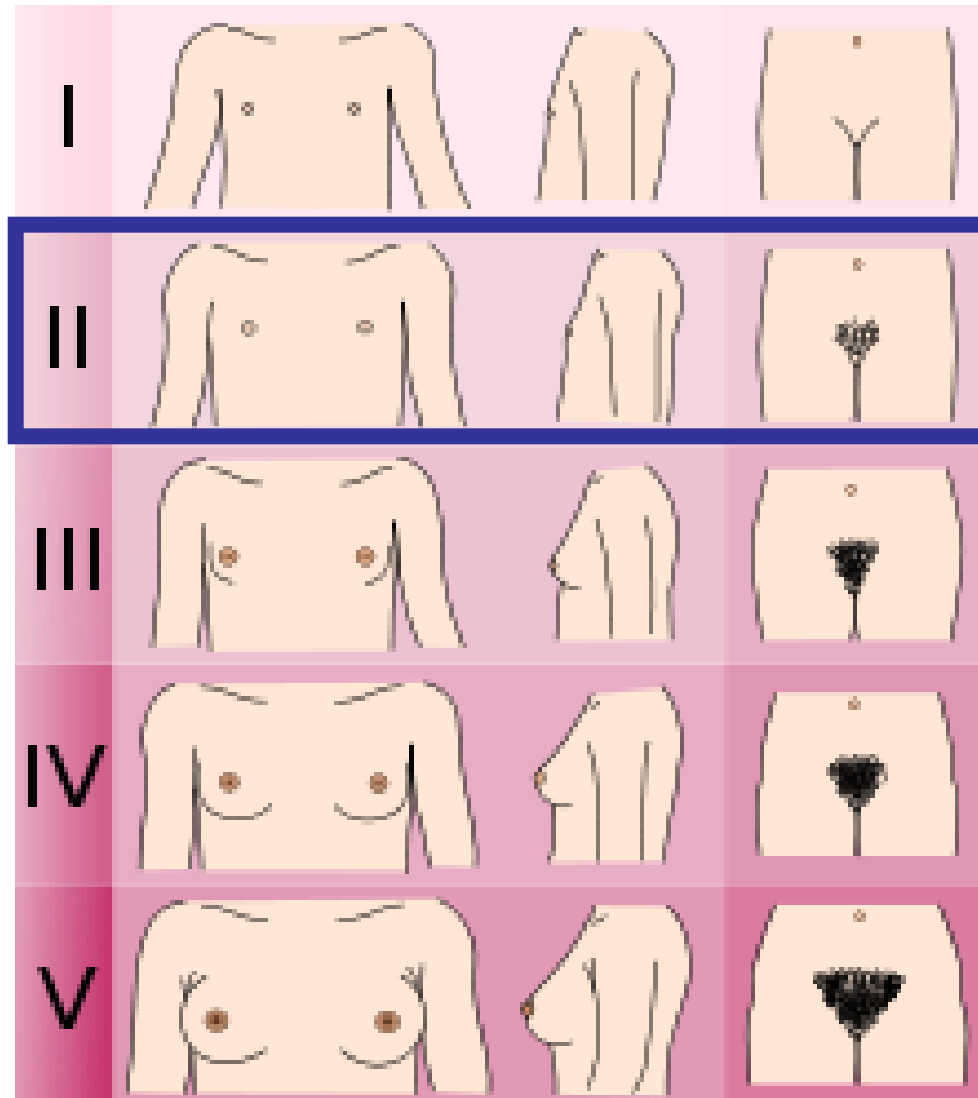
---

Abbreviation: GnRH, gonadotropin-releasing hormone.

**The American College of Obstetricians and Gynecologists: Care for transgender adolescents. *Obstetrics and Gynecology* 2017; 129: e11-e16.**

# Transgender (♀ ↔ ♂): Behandlung in Kindheit

---



**Vielen Dank für die  
Aufmerksamkeit!**

**Sven Diederich**

**MVZ Medicover Berlin-Mitte**

**Hausvogteiplatz 3 - 4**

**[sven.diederich@medicover.de](mailto:sven.diederich@medicover.de)**

