5th Joint Meeting on Adolescence Medicine

10th - 12th November 2011

Aula Consiliare e Sala dei Concerti, Palazzo de Nobili, Catanzaro (Italy)

"Gender Identity Disorders (GID) in Childhood and Adolescence"

Piernicola Garofalo

Palermo

SEX/ GENDER

- SEX = person's biological make-up
- GENDER = person's roles and behaviour ("self image")

PARAPHILIA

"A paraphilia is a disorder of intention, refers to what individuals want to do with a sexual partner and what they want the partner to do with them during sexual behavior "

CRIMINAL SEX-OFFENDING BEHAVIORS

- EXHIBITIONISM
- PEDOPHILIA
- Voyeurism
- SADISM
- FROTTEURISM

NON CRIMINAL FORMS OF PARAPHILIA

- FETHISM/TRANSVESTIC FETHISM
- MASOCHISM

INTERSEX

" A person born with sex chromosomes, externa genitalia or an internal reproductive system that is not considered standard for either male or female "

CLINICAL CONDITIONS

• Not XX or XY (Sex Chrom. aneuploidia)	1 in 1600 births
• Poorly differenciated or absent vagina	1 in 6000 births
• Androgen Insensivity Syndrome	1 in 13.000 births
• Congenital Adrenal Hyperplasia	1 in 13.000 births
• Ovotestes	1 in 83.000 births
• Complete gonadal dysgenesia	1 in 150.000 births

GENDER IDENTITY DISORDERS

DEFINITION

"Individuals who desire to live permanently in the gender role of opposite sex

and

who want to undergo sex-reassignement surgery"

Epidemiology:

- Average prevalence in adults: 1 in 12.000 biological men
  1 in 60.000 biological women

GENDER IDENTITY DISORDERS

CAUSES

- Different composition of brain areas ?
- Prenatal exposition to hormones or ECDs ?
- Execessive number of maternal aunts ?
- Birth order ?
- Left handedness ?
- Psycobiological (family, school, society) ?
- Heritabilitu ?

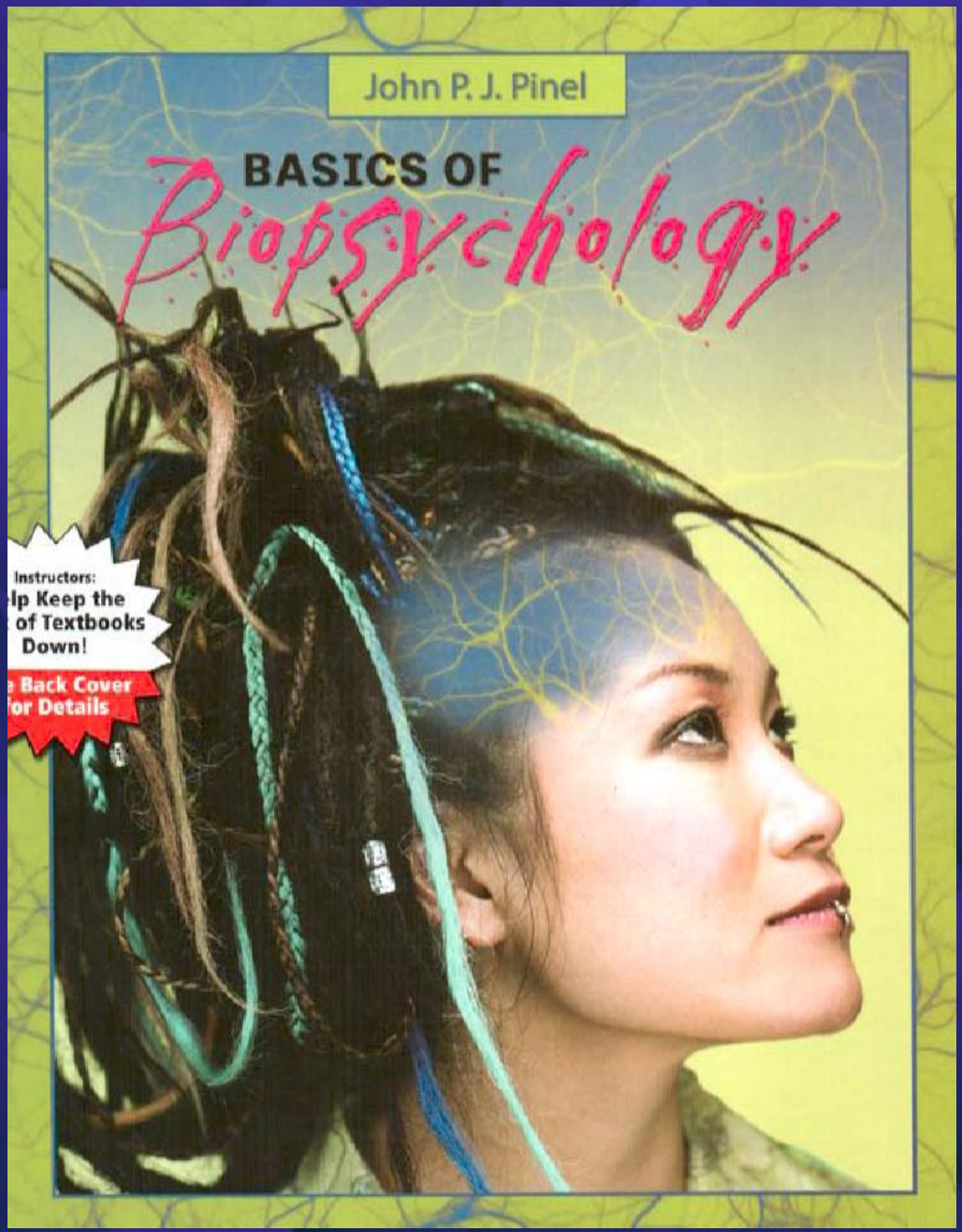
TRANSSEX /G.I.D.

To date there is no scientific evidence to suggest any biological causal factors !

BUT

Transsexualism or Gender Identity Disorders (GID) has wide international recognition as a medical condition….

BIOPSYCHOLOGY is the scientific study of the **biology of behavior**.



GID IN CHILDHOOD
Clinical presentation

- *Onset of cross-gender interests and activities is usually between age 3 and 5 years,*
- *Typically, children are referred around the time of school entry because of parental concern that what they regarded as a phase does not appear to be passing.*
- *Children with Gender Identity Disorder may manifest coexisting Separation Anxiety Disorder, Generalized Anxiety Disorder, and symptoms of depression.*

- *Only a very small number of children with gender Identity Disorder will continue to have symptoms that meet criteria for Gender Identity Disorder in later adolescence or adulthood.*

GID IN ADOLESCENCE
Clinical presentation I

- *In adolescents, the clinical features may resemble either those of children or those of adults, depending on the individual's developmental level.*

- *In younger adolescents, it may be more difficult to arrive at an accurate diagnosis because of the adolescent's guardedness. This may be increased if the adolescent feels ambivalent about cross-gender identification or feels that it is unacceptable to the family.*

- *The adolescent may be referred because the parents or teachers are concerned about social isolation or peer teasing and rejection. In such circumstances, the diagnosis should be reserved for those adolescents who appear quite cross-gender identified in their dress and who engage in behaviors that suggest significant cross-gender identification.*

GID IN ADOLESCENCE
Clinical presentation II

- *Adolescents are particularly at risk for depression and suicidal ideation and suicide attempts*
- *Clarifying the diagnosis in children and adolescents may require monitoring over an extended period of time*
- *By late adolescence or adulthood, about three-quarters of boys who had a childhood history of Gender Identity Disorder report a homosexual or bisexual orientation, but without concurrent Gender Identity Disorder.*
- *Most of the remainder report a heterosexual orientation, also without concurrent Gender Identity Disorder.*

GID IN CHILDHOOD and ADOLESCENCE
Diagnosis

- ***There is no diagnostic test specific for Gender Identity Disorder.*** ***In the presence of a normal physical examination, karyotyping for sex chromosomes and sex hormone assays are usually not indicated.***

- ***Only psychological testing*** ***may reveal cross-gender identification of behavior patterns.***

DSM-IV-TR diagnostic criteria for GID

A. A strong and persistent cross-gender identification (not merely a desire for any perceived cultural advantages of being the other sex).

In children, the disturbance is manifested by four (or more) of the following:

1. Repeatedly stated desire to be, or insistence that he or she is, the other sex.
2. In boys, preference for cross-dressing or simulating female attire; in girls, insistence on wearing only stereotypical masculine clothing.
3. Strong and persistent preferences for cross-sex roles in make-believe play or persistent fantasies of being the other sex.
4. Intense desire to participate in the stereotypical games and pastimes of the other sex.
5. Strong preference for playmates of the other sex.

In adolescents and adults, the disturbance is manifested by symptoms such as a stated desire to be the other sex, frequent passing as the other sex, desire to live or be treated as the other sex, or the conviction that he or she has the typical feelings and reactions of the other sex.

DSM-IV-TR diagnostic criteria for GID

B. Persistent discomfort with his or her sex or sense of inappropriateness in the gender role of that sex.

In children, the disturbance is manifested by any of the following:

1. In boys, assertion that his penis or testes is disgusting or will disappear, or assertion that it would be better not to have a penis, or aversion toward rough-andtumble play and rejection of male stereotypical toys, games, and activities.
2. In girls, rejection of urinating in a sitting position, assertion that she has or will grow a penis, assertion that she does not want to grow breasts or menstruate, or marked aversion toward normative feminine clothing.

In adolescents and adults, the disturbance is manifested by symptoms such as preoccupation with getting rid of primary and secondary sex characteristics (*e.g.* request for hormones, surgery, or other procedures to physically alter sexual characteristics to simulate the other sex) or belief that he or she was born the wrong sex.

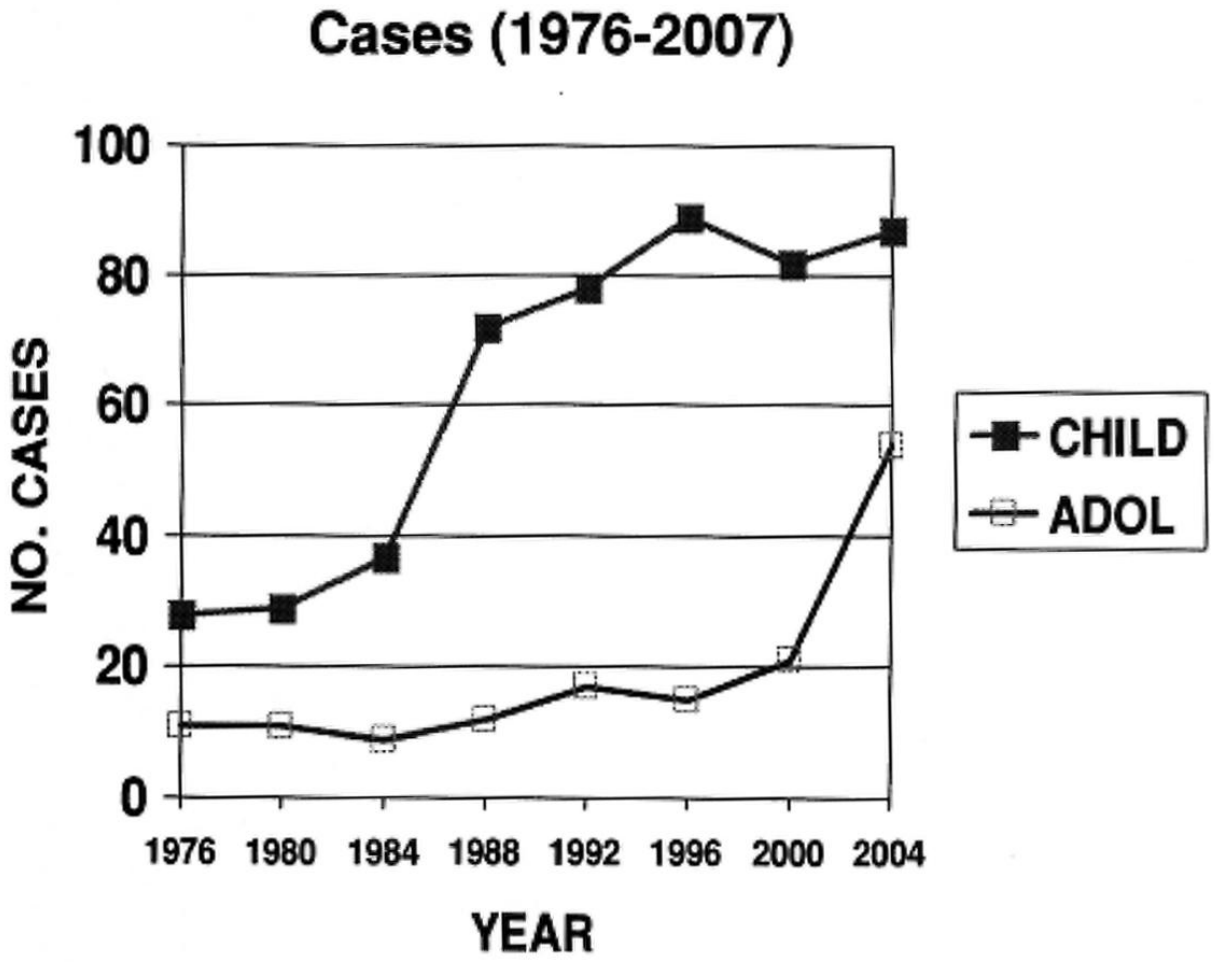
Journal of Sex & Marital Therapy, 34:287–290, 2008

Letter to the Editor

Is Gender Identity Disorder in Adolescents Coming out of the Closet?

KENNETH J. ZUCKER, PH.D., SUSAN J. BRADLEY, M.D., ALLISON OWEN-ANDERSON, PH.D., SARAH J. KIBBLEWHITE, PH.D., and JAMES M. CANTOR, PH.D.

Is Gender Identity Disorder in Adolescents Coming out of the Closet?



Number of cases assessed between 1976 and 2007 (blocked at 4-year intervals) as a function of age group (children vs. adolescents).

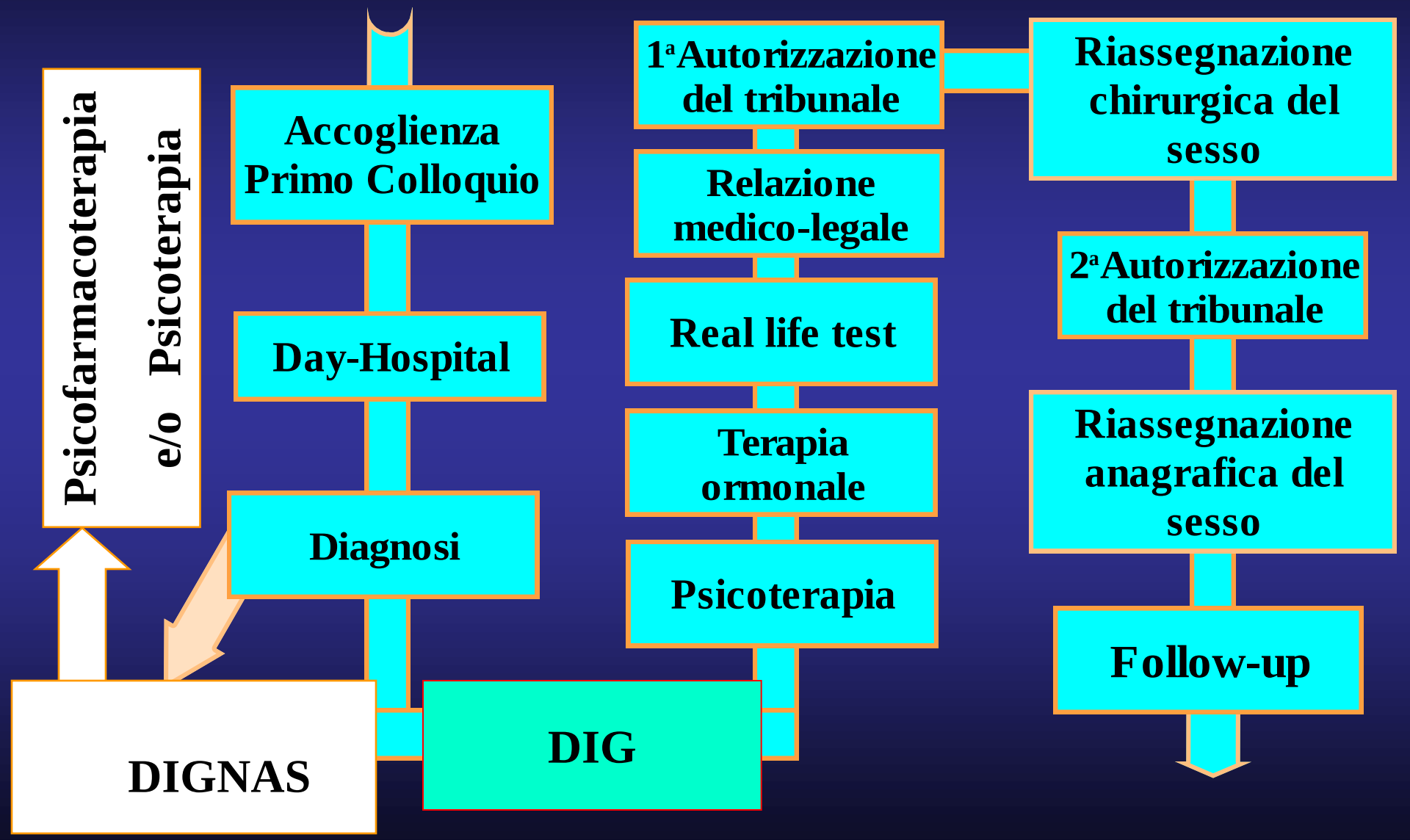
Kenneth Zucker 2008 . "Gender Identity Service, Child, Youth, and Family Program, Centre for Addiction and Mental Health", Toronto, Ontario

"Over the past several years, many media articles, television programs, and films have paid attention to gender identity issues in both children and Adolescents".

- *In the film Boys Don't Cry in 1999, for example, the actress Hilary Swank won an Academy Award for her role as Brandon Teena. Teena (born Teena Brandon), a female-to-male transsexual from Nebraska, was raped and subsequently murdered in 1993 at the age of 21 after two of his male friends discovered that he was a biological female (Sloop, 2000; Willox,2003).*

- *The print media has also given attention to gender identity disorder (GID), including articles in Time (Cloud, 2000), Saturday Night (Bauer, 2002), and the New York Times (Brown, 2006). On May 12, 2004 the Oprah Winfrey Show, which attracts at least 20 million daily viewers in the United States alone, featured several "transgendered" children and their parents and, on April 27, 2007, ABC's 20/20 had a similar show.*

ITER DI ADEGUAMENTO



Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline

J Clin Endocrinol Metab 94: 3132–3154, 2009

Wylie C. Hembree, Peggy Cohen-Kettenis, Henriette A. Delemarre-van de Waal, Louis J. Gooren, Walter J. Meyer III, Norman P. Spack, Vin Tangpricha, and Victor M. Montori*

Objective: **The aim was to formulate practice guidelines for endocrine treatment of transsexual persons.**

Evidence: **This evidence-based guideline was developed using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) system to describe the strength of recommendations and the quality of evidence, which was low or very low.**

Consensus Process: **Committees and members of The Endocrine Society, European Society of Endocrinology, European Society for Paediatric Endocrinology, Lawson Wilkins Pediatric Endocrine Society, and World Professional Association for Transgender Health commented on preliminary drafts of these guidelines.**

Hormone therapy for adolescents

Adolescents are eligible and ready for GnRH treatment if they:

1. Fulfill DSM IV-TR or ICD-10 criteria for GID or transsexualism.

2. Have experienced puberty to at least Tanner stage 2.

3. Have (early) pubertal changes that have resulted in an increase of their gender dysphoria.

4. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.

5. Have adequate psychological and social support during treatment

AND

6. Demonstrate knowledge and understanding of the expected outcomes of GnRH analog treatment, cross-sex hormone treatment, and sex reassignment surgery, as well as the medical and the social risks and benefits of sex reassignment.

Hormone regimens in the transsexual persons

	Dosage
MTF transsexual persons[a]	
Estrogen	
Oral: estradiol	2.0–6.0 mg/d
Transdermal: estradiol patch	0.1–0.4 mg twice weekly
Parenteral: estradiol valerate or cypionate	5–20 mg im every 2 wk 2–10 mg im every week
Antiandrogens	
Spironolactone	100–200 mg/d
Cyproterone acetate[b]	50–100 mg/d
GnRH agonist	3.75 mg sc monthly
FTM transsexual persons	
Testosterone	
Oral: testosterone undecanoate[b]	160–240 mg/d
Parenteral	
Testosterone enanthate or cypionate	100–200 mg im every 2 wk or 50% weekly
Testosterone undecanoate[b,c]	1000 mg every 12 wk
Transdermal	
Testosterone gel 1%	2.5–10 g/d
Testosterone patch	2.5–7.5 mg/d

J Clin Endocrinol Metab 94: 3132–3154, 2009

Masculinizing effects in FTM transsexual persons

Effect	Onset (months)[a]	Maximum (yr)[a]
Skin oiliness/acne	1–6	1–2
Facial/body hair growth	6–12	4–5
Scalp hair loss	6–12	[b]
Increased muscle mass/strength	6–12	2–5
Fat redistribution	1–6	2–5
Cessation of menses	2–6	[c]
Clitoral enlargement	3–6	1–2
Vaginal atrophy	3–6	1–2
Deepening of voice	6–12	1–2

Feminizing effects in MTF transsexual persons

Effect	Onset[a]	Maximum[a]
Redistribution of body fat	3–6 months	2–3 yr
Decrease in muscle mass and strength	3–6 months	1–2 yr
Softening of skin/decreased oiliness	3–6 months	Unknown
Decreased libido	1–3 months	3–6 months
Decreased spontaneous erections	1–3 months	3–6 months
Male sexual dysfunction	Variable	Variable
Breast growth	3–6 months	2–3 yr
Decreased testicular volume	3–6 months	2–3 yr
Decreased sperm production	Unknown	>3 yr
Decreased terminal hair growth	6–12 months	>3 yr[b]
Scalp hair	No regrowth	[c]
Voice changes	None	[d]

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of MTF transsexual persons on cross-hormone therapy (1)

1) Evaluate patient every 2–3 months in the first year and then 1–2 times per year afterward to monitor for appropriate signs of feminization and for development of adverse reactions.

2. Measure serum testosterone and estradiol every 3 months.

a. Serum testosterone levels should be 55 ng/dl.
b. Serum estradiol should not exceed the peak physiological range for young healthy females, with ideal levels 200 pg/ml.
c. Doses of estrogen should be adjusted according to the serum levels of estradiol.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of MTF transsexual persons on cross-hormone therapy (2)

3. For individuals on spironolactone, serum electrolytes (particularly potassium) should be monitored every 2–3 months initially in the first year.

4. Routine cancer screening is recommended in nontranssexual individuals (breasts, colon, prostate).

5. Consider BMD testing at baseline if risk factors for osteoporotic fracture are present (*e.g.* previous fracture, family history, glucocorticoid use, prolonged hypogonadism).
In individuals at low risk, screening for osteoporosis should be conducted at age 60 and in those who are not compliant with hormone therapy.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Male-to-Female (MTF) laboratory summary

Timeline for Laboratory Tests	
Baseline (before starting feminizing endocrine therapy)	• Free testosterone, lipid profile, fasting blood glucose (and A1c if diabetes or suspected glucose intolerance), liver enzymes, prolactin, electrolytes, urea, creatinine • Additional tests as clinically indicated (e.g., CBC, coagulation profile)
1 week after starting/changing dose of spironolactone	• Serum potassium, urea, creatinine
1 month after starting/changing dose of estrogen	• Liver enzymes, lipid profile, fasting glucose • If taking spironolactone: serum potassium, urea, and creatinine
3 months after starting estrogen	• Free testosterone: repeat every 3 months until free testosterone is in target range of < 7.2 pg/mL or 75 pmol/L • Liver enzymes, lipid profile, fasting glucose, prolactin • If taking spironolactone: serum potassium, urea, and creatinine
6 months after starting estrogen and every 6 months thereafter if dose is stable	• Liver enzymes, fasting glucose • If taking spironolactone: serum potassium, urea, and creatinine • Add lipid profile every 12 months (once estrogen dose is stable) • Add prolactin at 6 months, 12 months, 24 months, and 36 months

Testosterone Reference Ranges
(goal: reduce to low end of normal female range)

	BC Bio Medical Labs	MDS Metro	Vancouver Hospital
Free testosterone	• F, 3-50 yrs: 0.6-7.5 pmol/L • F, > 50 yrs: < 6.5 pmol/L	• F, 21-60 yrs: 0.5-8.1 pmol/L • F, > 61 yrs: < 6.5 pmol/L	• F, 3-60 yrs: < 7.5 pmol/L • F, > 60 yrs: < 6.5 pmol/L
Total testosterone	• F, > 17 yrs: 0.5-2.6 nmol/L	• F: < 4.5 nmol/L	• F, > 11 yrs: < 1.4 nmol/L

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of FTM transsexual persons on cross-hormone therapy (1)

1. Evaluate patient every 2–3 months in the first year and then 1–2 times per year to monitor for appropriate signs of virilization and for development of adverse reactions.

2. Measure serum testosterone every 2–3 months until levels are in the normal physiological male range:

a. For testosterone enanthate/cypionate injections, the testosterone level should be measured midway between injections. If the level is 700 ng/dl or 350 ng/dl, adjust dose accordingly.
b. For parenteral testosterone undecanoate, testosterone should be measured just before the next injection.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of FTM transsexual persons on cross-hormone therapy (2)

c. For transdermal testosterone, the testosterone level can be measured at any time after 1 wk.

d. For oral testosterone undecanoate, the testosterone level should be measured 3–5 h after ingestion.

e. Note: During the first 3–9 months of testosterone treatment, total testosterone levels may be high, although free testosterone levels are normal, due to high SHBG levels in some biological women.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of FTM transsexual persons on cross-hormone therapy (3)

3. Measure estradiol levels during the first 6 months of testosterone treatment or until there has been no uterine bleeding for 6 months. Estradiol levels should be 50 pg/ml.

4. Measure complete blood count and liver function tests at baseline and every 3 months for the first year and then 1–2 times a year. Monitor weight, blood pressure, lipids, fasting blood sugar (if family history of diabetes), and hemoglobin A1c (if diabetic) at regular visits.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Monitoring of FTM transsexual persons on cross-hormone therapy (3)

5. Consider BMD testing at baseline if risk factors for osteoporotic fracture are present (*e.g.* previous fracture, family history, glucocorticoid use, prolonged hypogonadism). In individuals at low risk, screening for osteoporosis should be conducted at age 60 and in those who are not compliant with hormone therapy.

6. If cervical tissue is present, an annual pap smear is recommended by the American College of Obstetricians and Gynecologists.

7. If mastectomy is not performed, then consider mammograms as recommended by the American Cancer Society.

J Clin Endocrinol Metab 94: 3132–3154, 2009

Female-to-Male (FTM) laboratory summary

Timeline for Laboratory Tests	
Baseline (before starting masculinizing endocrine therapy)	• Lipid profile, fasting glucose (and A1c if high risk for diabetes/glucose intolerance), complete blood count, and liver enzymes • Free testosterone if clinical suspicion of hyperandrogenism or if patient wants to know of changes after starting testosterone
2-4 weeks after starting/changing dose	• Free testosterone (trough or midcycle if IM)
3 months after starting testosterone	• Hgb, fasting blood glucose, lipid profile, liver enzymes
6 months after starting testosterone	• Hgb, fasting blood glucose, lipid profile, liver enzymes • Free testosterone (trough or midcycle if IM)
12 months after starting testosterone and annually thereafter	• Hgb, fasting blood glucose, lipid profile, liver enzymes • Free testosterone (trough or midcycle if IM)

Testosterone Reference Ranges
(goal: elevate to within normal male range)

	BC Bio Medical Labs	MDS Metro	Vancouver Hospital
Free testosterone	• M, 20-29 yrs: 32-92 pmol/L • M, 30-39 yrs: 30-87 pmol/L • M, 40-60 yrs: 23-83 pmol/L • M, > 60 yrs: 22-63 pmol/L	• M, 21-30 yrs: 24-95 pmol/L • M, 31-40 yrs: 25-89 pmol/L • M, 41-50 yrs: 23-82 pmol/L • M, 51-60 yrs: 23-80 pmol/L • M, > 61 yrs: 22-74 pmol/L	• M, 20-29 yrs: 32-92 pmol/L • M, 30-39 yrs: 30-87 pmol/L • M, 40-60 yrs: 23-83 pmol/L • M, > 60 yrs: 22-63 pmol/L
Total testosterone	• M, > 17 yrs: 8.4-28.7 nmol/L	• M: 10-30 nmol/L	• M, > 15 yrs: 10-38 nmol/L

J Clin Endocrinol Metab 94: 3132–3154, 2009

Recommendations

Diagnostic Procedures

1.1 We recommend that the diagnosis of GID be made by a MHP. For children and adolescents, the MHP must also have training in child and adolescent developmental psycopathology (1 ⊕⊕◯◯)

1.2 Given the high rate of remission of GID after the onset of puberty, we recommend against a complete social role change and hormone treatment in prepubertal children with GID. (1 ⊕⊕◯◯)

J Clin Endocrinol Metab 94: 3132–3154, 2009

Recommendations

Treatment of adolescents (I)

2.1 We recommend that adolescents who fullfill eligibility and readiness criteria for gender reassignment initially undergo treatment to suppress pubertal development. (1 ⊕◯◯◯)

2.2 We recommend that suppression of pubertal hormones start when girls and boys fist exhibit physical changes of puberty, but no earlier than Tanner stage 2-3. (1 ⊕⊕◯◯)

2.3 We recommend that GnRH analogs be used to achieve suppression of pubertal hormones. (1 ⊕⊕◯◯)

2.4 We suggest that pubertal development of the desired , opposite sex be initiated at the age of 16 yr using a gradually increasing dose schedule of cross-sex steroids. (2 ⊕◯◯◯)

J Clin Endocrinol Metab 94: 3132–3154, 2009

Recommendations

Treatment of adolescents (II)

2.5 We recommend referring hormone-treated adolescents for surgery when: 1) the RLE (Real Life Experience) has resulted in a satisfactory social role change , 2) the individual is satisfied about the hormonal effects, and 3) the individual desires definitive surgical changes. (1 ⊕◯◯◯)

2.6 We suggest deferring for surgery until the individual is at least 18 ty old. (2 ⊕◯◯◯)

3.1 We recommend tha tteating endocrinologists confirm the diagnostic criteria for GID and the eligibility and readiness criteria for the endocrine phase of gender transition (1 ⊕⊕⊕◯)

3.2 We suggest that cross-sex hormone levels be maintened in the normal physiological range for the desired gender (2 ⊕⊕◯◯)

J Clin Endocrinol Metab 94: 3132–3154, 2009

Recommendations

Treatment of adolescents (III)

4.1 We suggest regular clinical and laboratory monitoring every 3 months during the first year and then once or twice yearly. (2 ⊕⊕◯◯)

4.2 We suggest monitoring prolactin levels in MTF transsexual persons tretade with estrogens. (2 ⊕⊕◯◯)

4.3 We suggest that transsexual persons treated with hormones be ecaluaeted for cardiovascular risk factors. (2 ⊕⊕◯◯)

4.4 We suggest that BMD measurement be obtained if risk factors for osteoporosis exist, specifically in those who stop sex hormone therapy after gonadectomy. (2 ⊕⊕⊕◯)

4.5 We suggest tha MTF transsexual persons who have non known increased risk of breast cancer follow breast screening guidelines recommended for biological women. (2 ⊕⊕◯◯)

Recommendations

Treatment of adolescents (IV)

4.1 We suggest regular clinical and laboratory monitoring every 3 months during the first year and then once or twice yearly. (2 ⊕⊕◯◯)

4.2 We suggest monitoring prolactin levels in MTF transsexual persons tretade with estrogens. (2 ⊕⊕◯◯)

4.3 We suggest that transsexual persons treated with hormones be ecaluaeted for cardiovascular risk factors. (2 ⊕⊕◯◯)

4.4 We suggest that BMD measurement be obtained if risk factors for osteoporosis exist, specifically in those who stop sex hormone therapy after gonadectomy. (2 ⊕⊕⊕◯)

4.5 We suggest tha MTF transsexual persons who have non known increased risk of breast cancer follow breast screening guidelines recommende for biological women. (2 ⊕⊕◯◯)

Recommendations

Treatment of adolescents (V)

4. 6 We suggest tha MTF transesexual persons tretaed with estrogens follow screening guidelines for prostatic disease and prostate cancer recommended for biological men . (2 ⊕○○○)

4.7 We suggest that FTM transsexual pewrsons evaluate the risks and benefits of including a total hysterectomy and oophorectomy as part of sex reassignement surgery . (2 ⊕○○○)

5.1 We recommend that transsexual persons consider genital sex reassignement only after both the physician responsible for endocrine transition therapy and the MHP find surgery advisable. (1 ⊕○○○)

5.2 We recommended that genital sex reassignemnet surgery be recommended only after completion of at least 2 yr of consistent and compliant hormone treatment. (1 ⊕○○○)

Long-Term Treatment of Transsexuals with Cross-Sex Hormones: Extensive Personal Experience

Louis J. Gooren, Erik J. Giltay, and Mathijs C. Bunck
Department of Endocrinology (L.J.G., M.C.B.), Vrije Universiteit University Medical Center, 1081 HV Amsterdam, The Netherlands; and
Leiden University Medical Center (E.J.G.), Department of Psychiatry, 2333 ZA Leiden, The Netherlands

J Clin Endocrinol Metab 93: 19-25, 2008

Long-Term Treatment of Transsexuals with Cross-Sex Hormones: Extensive Personal Experience

From 1975 up to 2006

- **2236 MTF**
- **876 FTM**

- **10.152 patient-years**

J Clin Endocrinol Metab 93: 19-25, 2008

Long-Term Treatment of Transsexuals with Cross-Sex Hormones: Extensive Personal Experience

- Mortality was not higher than in comparison group
- No osteoporosis in both groups (MTF or FMT)
- 6-8% incidence venous thrombosis in MTF (but only with EE)
- 1 pt developed microPRLoma (MTF)
- 1 pt developed breast cancer (MTF)
- No one developed Prostate Hyperplasia or Prostate Cancer (MTF)
- 2 cases of ovarian carcinoma in FTM after testosterone treatment.

J Clin Endocrinol Metab 93: 19-25, 2008

Long-Term Treatment of Transsexuals with Cross-Sex Hormones: Extensive Personal Experience

Cardiovascular Risk (surrogate markers)

MTF

- **Increase in whole group**

FTM

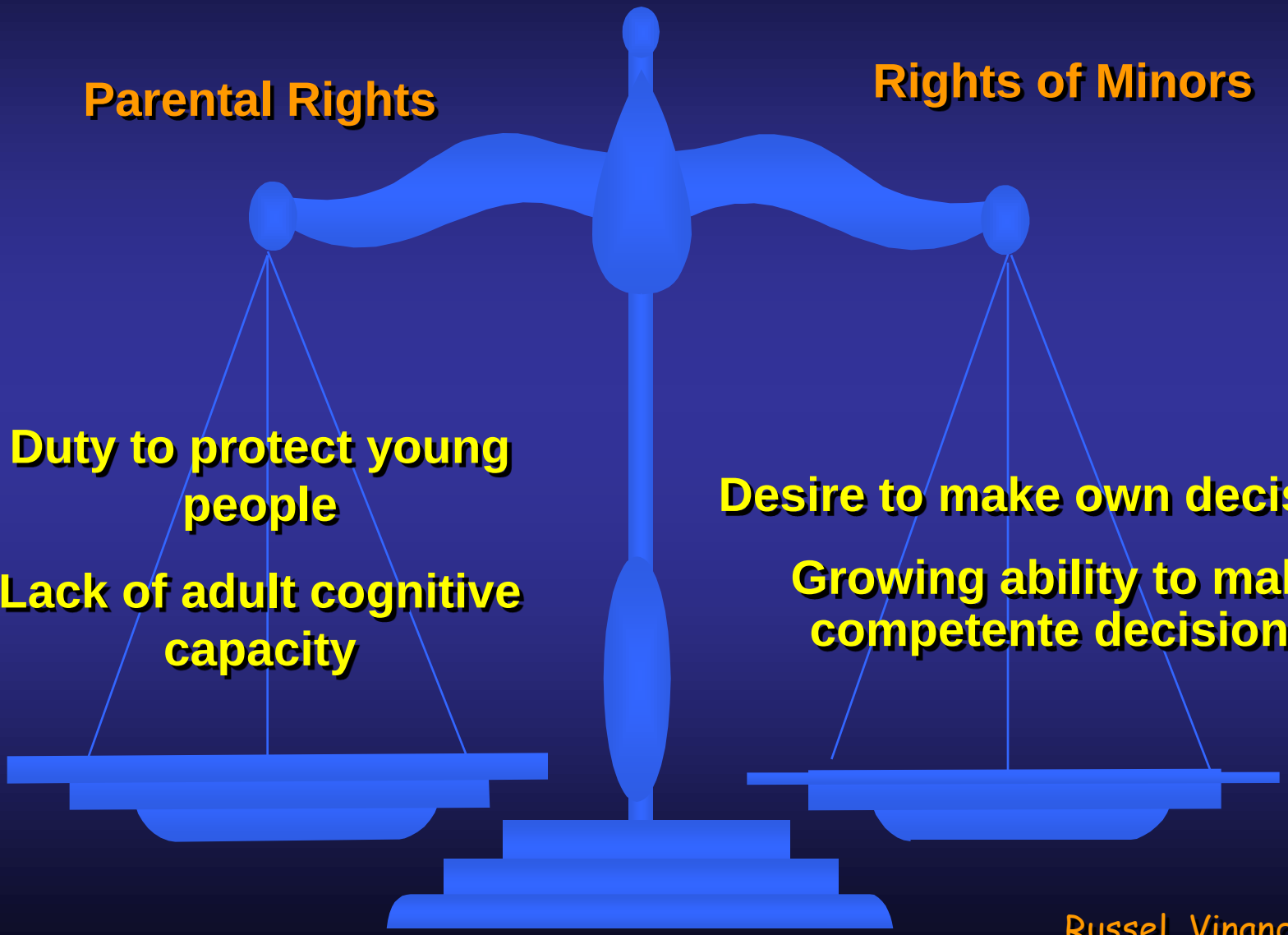
- **No effects in whole group**

BUT

- **No elevated cardiovascular morbidity/mortality**

J Clin Endocrinol Metab 93: 19-25, 2008

Balancing rights and responsibilities in adolescent care



Russel Vinand 2009

Developmental tasks of adolescence

	Biological	Psychological	Social
Early adolescence	Early puberty. Girls: breast bud and pubic hair development, start of growth spurt. Boys: testicular enlargement , start of genital growth	Concrete thinking but early moral concepts; progression of sexual identity development; possible homosexual peer interest; reassessment of body image	Emotional separations from parents; start of strong peer identification, early exploratory bahaviours (smoking, violence)
Mid-adolescence	Girls: mid-late puberty and end of growth spurt; menarche; development of female body shape with fat deposition. Boys: mid-puberty, spermarche and nocturnal emissions; voice breaks; start of growth spurt.	Abstract thinking, but self still seen as " bullet proof" growing verbal abilities; identification of law with morality; start of fervent ideology (religious, political)	Emotional separation from parents; strong peer identification; increased health risk (smoking, alcohol) ; heterosexual peer interest.
Late adolescence	Boys: end of puberty; continued increase in muscle bulk and body hair	Complex abstract thinking; identification of difference between law and morality; further development of personal identify; further development of or rejection of religious and political ideology	Development of social autonomy; intimate relationships; development of vocational capability and financial independence

Russel Viner 2009

FnomCeO
Codice deontologico 2007
Titolo III Rapporti con il cittadino

- **Art 33: ..il medico dovrà comunicare con il soggetto tenendo conto delle sue *capacità di comprensione…***
- **Art. 35:Il medico non deve intraprendere attività diagnostica e/o terapeutica senza l'acquisizione del consenso esplicito e informato del paziente. In ogni caso in presenza di documentato rifiuto di *persona capace*, il medico deve desistere….**
- **Art. 37: …allorchè si tratti di minore o di interdetto il consenso agli interventi diagnostici e terapeutici deve essere espresso dal rappresentante legale. In caso di opposizione dei legali rappresentanti il medico deve ricorrere all'autorità giudiziaria. (art. 32)**
- **Art. 38: ..il medico compatibilmente con *l'età, con la capacità di comprensione e con la maturità del soggetto*, ha l'obbligo di dare adeguate informazioni al minore e di tenere conto della sua volontà.**

Piernicola Garofalo

Comitato Nazionale di Bioetica
22 Gennaio 1994

" E' difficile pensare ad un consenso o ad un dissenso informato prima dei sette anni…. Successivamente è concepibile un consenso o un dissenso in formato certamente insieme con quello dei genitori".

" *A partire dai 12 anni, nell'età adolescenziale, si può credere in un consenso o dissenso progressivamente consapevole"*

Piernicola Garofalo

TRIBUNALE CIVILE di ROMA

Sentenza di primo grado

"Il Tribunale autorizza ……., nella qualità di genitore esercente la potestà sul figlio ……., nato a Roma il 09/03/1994, a prestare il consenso affinchè il predetto possa essere sottoposto a trattamento medico-chirurgico per l'adeguamento dei propri caratteri sessuali a quelli femminili"

Roma 11 Marzo 2011

" Treating adolescents patients is challenging, interesting, moving, funny and sometimes painful "

Daniel Hardoff


Embrace
Diversity