milano
15 MAGGIO 2018
BASE B Fondazione the Bridge

IL DIRITTO ALLA SALUTE è DIRITTO di TUTTI

IL DOPPIO BINARIO

TRANSGENDER HIV e MALATTIE INFETTIVE

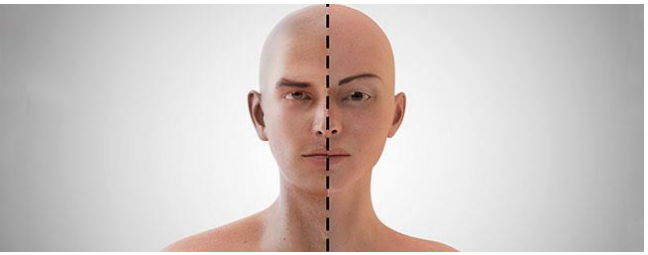
ASPETTI CLINICI

Maria Cristina Meriggiola
cristina.meriggiola@unibo.it
Azienda Ospedaliero Universitaria
S Orsola Malpighi

theBRIDGE SCIENZA TRA CLINICA E SOCIETÀ

prima visita medica

- Diagnosi DIG
- Valutare stato di salute
  - ★ anamnesi, PA
  - ★ assetto ormonale
  - ★ es lab: fegato, rene, coagulazione,
  - ★ esami infettivologici
  - ★ ecografia addome e genitali
- Discussione delle aspettative del trattamento
- Discussione dei rischi/benefici
- Counseling stile di vita
- Opzioni per la fertilità



GOALS DELLA TERAPIA ORMONALE NELLE PERSONE DIG ADULTE

riduzione degli ormoni sessuali endogeni - attenuazione delle caratteristiche sessuali secondarie ormono dipendenti

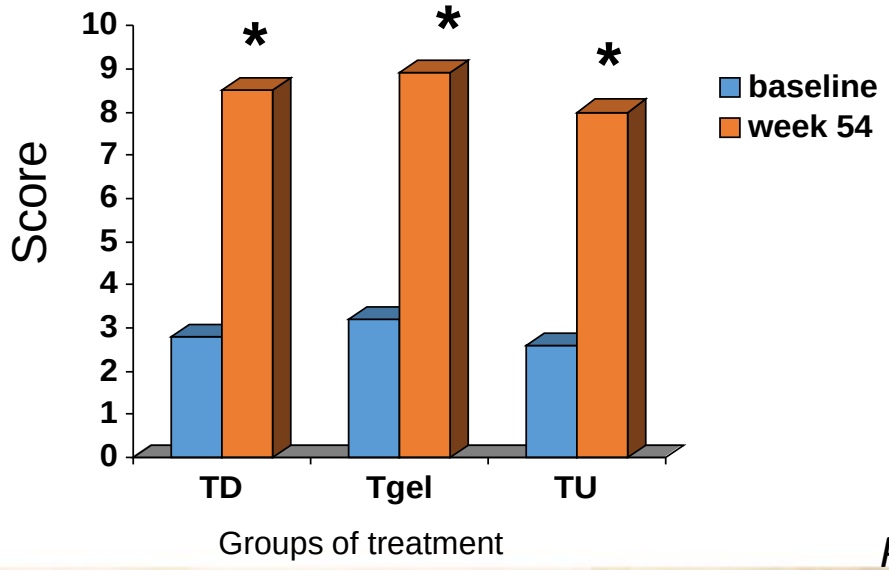
sostituzione ormoni cross-sex - induzione delle caratteristiche sessuali secondarie desiderate

LA TERAPIA ORMONALE NELLE PERSONE DIG ADULTE

i cambiamenti fisici indotti dalla terapia ormonale nelle persone DIG sono generalmente accompagnati da miglioramento del benessere della persona

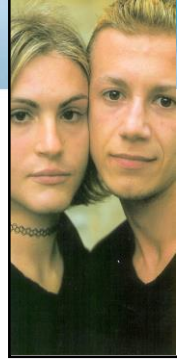
Visual Analogue Scale for General Satistaction

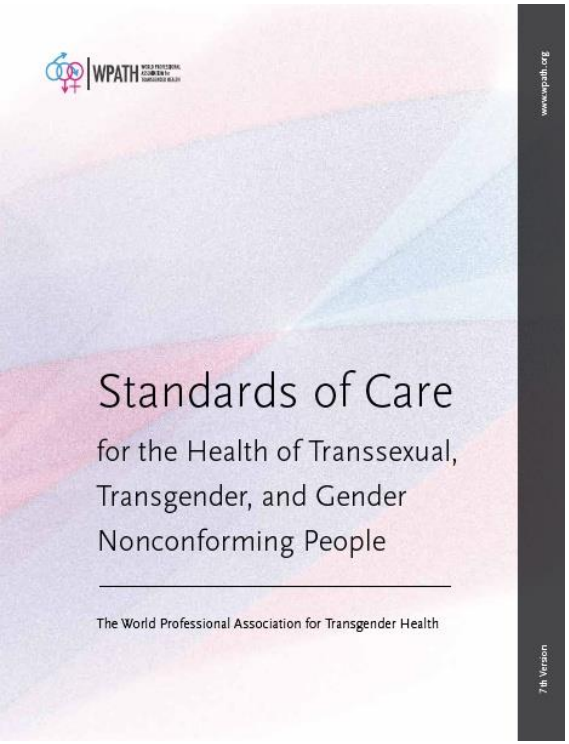
"Al momento attuale quanto è soddisfatto della sua vita in generale?"



* P < 0.05

Pelusi et al., 2014





J. Endocrinol. Invest. 32: 857-864, 2009

CONSENSUS

SIAMS-ONIG Consensus on hormonal treatment in gender identity disorders*

A. Godano[1], M. Maggi[2], E. Jannini[3], M.C. Meriggiola[4], E. Ghigo[5], O. Todarello[6], A. Lenzi[7], and C. Manieri[5]

[1]ASL 1 Piedmont Region (ONIG Past President), Turin; [2]Andrology Unit, Department of Clinical Physiopatology, University of Florence, Florence; [3]School of Sexology, Department of Experimental Medicine, University of L'Aquila, L'Aquila; [4]Center for reproductive Health, Department of Obstetrics and Gynecology, S. Orsola Hospital, University of Bologna, Bologna; [5]Division of Endocrinology, Diabetology and Metabolism, Department of Internal Medicine, University of Turin, Turin; [6]Department of Neurological and Psychiatric Sciences, University of Bari (ONIG President), Bari; [7]Chair of Endocrinology, Department of Medical Pathophysiology, University of Rome, Rome (SIAMS President), Italy

Endocrine Treatment of Gender-Dysphoric/ Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline

Wylie C. Hembree,[1] Peggy T. Cohen-Kettenis,[2] Louis Gooren,[3] Sabine E. Hannema,[4] Walter J. Meyer,[5] M. Hassan Murad,[6] Stephen M. Rosenthal,[7] Joshua D. Safer,[8] Vin Tangpricha,[9] and Guy G. T'Sjoen[10]

European Journal of Endocrinology (2010) **162** 831–833 ISSN 0804-4643

INVITED COMMENTARY

Endocrine treatment of transsexual persons: an Endocrine Society Clinical Practice Guideline: commentary from a European perspective

M C Meriggiola, E A Jannini[1], A Lenzi[2], M Maggi[3] and C Manieri[4]

Department of Obstetrics and Gynaecology, Centre for Reproductive Health, S. Orsola Hospital, University of Bologna, Via Massarenti 13, 40138 Bologna, Italy, [1]Course of Endocrinology and Medical Sexology, Department of Experimental Medicine, University of L'Aquila, L'Aquila, Italy, [2]Department of Medical Physiopathology, University of Rome 'La Sapienza', Rome, Italy, [3]Andrology Unit, Department of Clinical Physiopathology, University of Florence, Florence, Italy and [4]S.C.D.U. Endocrinology and Metabolic Disease, University of Turin, Turin, Italy

(Correspondence should be addressed to M C Meriggiola; Email: cristina.meriggiola@unibo.it)

I criteri per la Terapia Ormonale

1. Disforia di genere persistente e ben documentata
2. Capacità di decidere dopo essere stato pienamente informato e capacità di dare il consenso al trattamento
3. Maggiore età secondo le norme in vigore (se minore fare riferimento a altri SOCs)
4. Se ci sono importanti dubbi sulla salute fisica e mentale, devo essere seriamente considerati e risolti
5. Circostanze eccezionali
6. Consenso Informato firmato

*The Standards of Care **7th Version***
World Professional Association for Transgender Health

Altre responsabilità del medico che prescrive gli ormoni

- monitoraggio regolare incluse visite, esami di laboratorio per la valutazione dell'efficaci degli ormoni e di possibili effetti collaterali
- comunicare con il medico di famiglia se necessario, con psicologo/psicoterapeuta e chirurgo
- firma del Consenso Informato

MtF - terapia ormonale

RIDUZIONE DEI CARATTERI SESSUALI MASCHILI

- Ciproterone Acetato
- Spironolattone
- Analoghi del GnRH

- Finasteride
- Flutamide
- Bicalutamide

SVILUPPO DEI CARATTERI SESSUALI FEMMINILI

- Estrogeni
  - ORALI
    - Etinilestradiolo
    - Estradiolo Valerato
    - Estradiolo
  - TRANSDERMICO
    - Gel
    - Cerotto

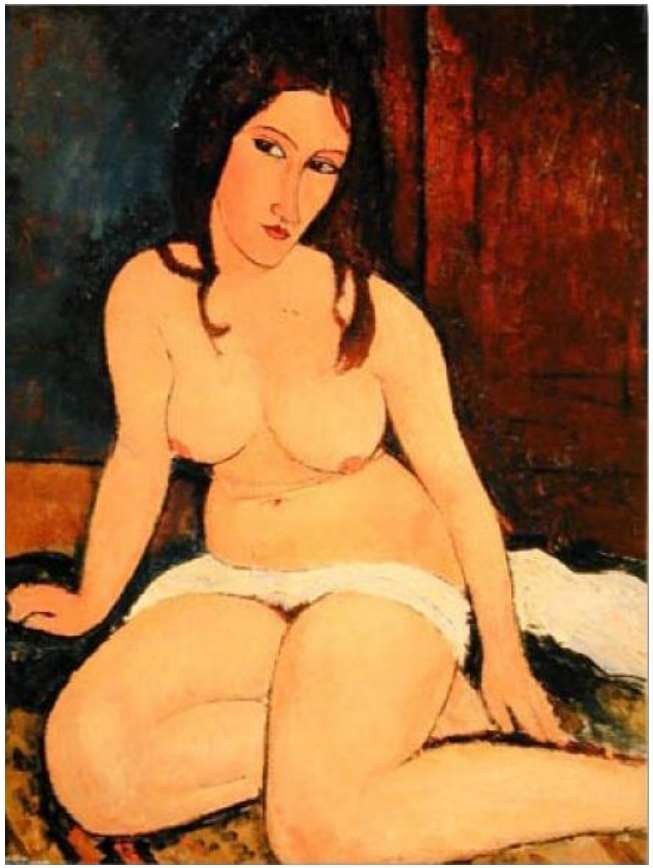
MtF: effetti della terapia ormonale

"FAVOREVOLI"

- Aumento del volume mammario
- Peli e capelli: più sottili, meno colorati, riduzione dell'alopecia androgenica
- La riduzione della barba può necessitare di terapia laser
- Riduzione del volume testicolare
- Riduzione del volume della prostata

"SFAVOREVOLI"

- Riduzione della massa muscolare, aumento della massa grassa
- Ridotta attività delle ghiandole sebacee, pelle secca, unghie sottili
- Riduzione dell'ematocrito
- Iperprolattinemia
- Riduzione della libido
- Sbalzi di umore, perdita di energia



Clinical Endocrinology (2016) 85, 239–246 doi: 10.1111/cen.13050

ORIGINAL ARTICLE

Cyproterone acetate *vs* leuprolide acetate in combination with transdermal oestradiol in transwomen: a comparison of safety and effectiveness

Giulia Gava*, Silvia Cerpolini*, Valentina Martelli*, Giuseppe Battista†, Renato Seracchioli† and Maria Cristina Meriggiola*

	Groups	Baseline Mean ± SD	Month 12 Mean ± SD
BMI (Kg/m^2)	CPA+E	22·0 ± 2·9	22·5 ± 2·7
	Leu+E	21·9 ± 2·3	22·7 ± 2·9
Weight (Kg)	CPA+E	67·7 ± 11·4	69·1 ± 10·4
	Leu+E	67·6 ± 9·6	71·3 ± 9·3
WHR	CPA+E	0·9 ± 0·1	0·9 ± 0·1
	Leu+E	0·8 ± 0·1	0·8 ± 0·1
Fat (Kg)	CPA+E	14·9 ± 5·6	19·3 ± 4·7*
	Leu+E	15·2 ± 5·6	19·9 ± 6·8*
Lean (Kg)	CPA+E	51·7 ± 8·3	49·9 ± 7·8
	Leu+E	50·2 ± 7·0	49·8 ± 6·7
Total BMD (g/cm^2)	CPA+E	1·2 ± 0·1	1·2 ± 0·1
	Leu+E	1·1 ± 0·1	1·2 ± 0·1
Lumbar BMD (g/cm^2)	CPA+E	1·0 ± 0·2	1·0 ± 0·1
	Leu+E	1·1 ± 0·2	1·1 ± 0·2

	Groups	Baseline Mean ± SD	Month 12 Mean ± SD
Ht	CPA+E	43·5 ± 4·5	40·2 ± 3·1*
	Leu+E	44·8 ± 2·3	40·5 ± 2·3*
aPTT (ratio)	CPA+E	1·1 ± 0·1	1·0 ± 0·1
	Leu+E	1·0 ± 0·1	1·0 ± 0·1
PT (INR)	CPA+E	1·0 ± 0·1	1·1 ± 0·1
	Leu+E	1·0 ± 0·1	1·0 ± 0·1
Tot Chol (mmol/l)	CPA+E	4·5 ± 1·3	4·3 ± 0·9*,#
	Leu+E	4·5 ± 1·0	4·8 ± 1·1*
LDL (mmol/l)	CPA+E	2·7 ± 1·2	2·6 ± 0·8
	Leu+E	2·8 ± 0·9	2·8 ± 1·1
HDL (mmol/l)	CPA+E	1·5 ± 0·4	1·3 ± 0·3*,#
	Leu+E	1·5 ± 0·4	1·7 ± 0·5*
Triglycerides (mmol/l)	CPA+E	0·9 ± 0·4	0·8 ± 0·3
	Leu+E	0·8 ± 0·3	0·9 ± 0·5
Glucose (mmol/l)	CPA+E	4·9 ± 0·6	4·5 ± 0·6
	Leu+E	4·7 ± 0·5	4·7 ± 0·3
Insulin (pmol/l)	CPA+E	7·5 ± 3·5	9·1 ± 4·1
	Leu+E	5·5 ± 2·8	7·6 ± 2·9
HOMA-IR	CPA+E	1·6 ± 0·7	1·9 ± 1·0
	Leu+E	1·2 ± 0·6	1·6 ± 0·7

FtM - terapia ormonale

TESTOSTERONE

- ORALI
  - Testosterone Undecanoato

- INIETTABILI
  - Esteri del Testosterone
  - Testosterone Undecanoato

- TRANSDERMICO
  - Gel
  - Cerotto

  +/-
  - Progestinico o analoghi del GnRH

Effects of Three Different Testosterone Formulations in Female-to-Male Transsexual Persons

	Groups	Baseline	Week 30	Week 54	GLM analysis	
			Posttreatment	Posttreatment	*P* value vs. posttreatment	*P* value vs. groups
Glucose (mg/dL)	TD	87.3 (82.2–92.4)	81.2 (75.6–86.7)	82.0 (76.9–87.0)	$P = 0.019$	$P = 0.749$
	T-gel	84.0 (78.7–89.3)	81.5 (75.7–87.3)	80.0 (74.7–85.3)		
	TU	83.1 (77.9–88.2)	81.7 (76.1–87.2)	80.1 (75.0–85.1)		
Insulin (mcu/mL)	TD	6.04 (4.88–7.18)	5.52 (4.14–6.91)	5.21 (3.93–6.49)	$P = 0.917$	$P = 0.41$
	T-gel	5.71 (4.44–6.98)	6.61 (5.08–8.14)	6.10 (4.68–7.52)		
	TU	5.82 (46.68–6.98)	4.84 (3.45–6.22)	5.86 (4.58–7.15)		
HOMA-IR	TD	1.26 (1.03–1.49)	1.09 (0.83–1.35)	0.92 (0.68–1.16)	$P = 0.62$	$P = 0.28$
	T-gel	1.12 (0.87–1.37)	1.26 (0.97–1.55)	1.21 (0.94–1.47)		
	TU	1.18 (0.96–1.41)	0.98 (0.72–1.25)	1.14 (0.90–1.38)		
Waist circumference (cm)	TD	73.1 (68.23–78.0)	76.7 (71.70–81.7)	77.5 (723.7–82.2)	$P = 0.256$	$P = 0.317$
	T-gel	82.7 (73.2–92.1)	81.3 (71.8–90.9)	84.0 (74.9–93.1)		
	TU	81.5 (74.2–88.8)	79.6 (72.2–87.0)	80.6 (73.5–87.7)		
Hip circumference (cm)	TD	94.4 (90.6–98.2)	96.0 (92.0–99.9)	96.0 (91.9–100.1)	$P = 0.089$	$P = 0.206$
	T-gel	98.7 (91.4–105.9)	100.7 (93.1–108.3)	98.0 (90.2–105.8)		
	TU	97.2 (91.6–102.8)	98.28 (92.3–104.1)	101.8 (95.7–107.9)		
WHR	TD	0.77 (0.72–0.82)	0.80 (0.76–0.84)	0.81 (0.77–0.85)	$P = 0.322$	$P = 0.072$
	T-gel	0.84 (0.74–0.93)	0.80 (0.73–0.88)	0.85 (0.78–0.93)		
	TU	0.84 (0.77–0.92)	0.81 (0.75–0.87)	0.79 (0.73–0.85)		
Body weight (kg)	TD	57.8 (51.2–64.4)	61.8 (55.2–68.5)	61.3 (55.0–67.5)	$P < 0.0005$	$P = 0.063$
	T-gel	67.3 (59.7–74.9)	69.6 (61.9–77.2)	68.7 (61.5–75.9)		
	TU	59.6 (52.3–66.8)	60.0 (52.7–67.3)	60.5 (53.7–67.4)		
BMI (kg/m^2)	TD	22.3 (19.9–24.6)	23.8 (21.5–26.1)	23.6 (21.4–25.8)	$P < 0.0005$	$P = 0.058$
	T-gel	23.9 (21.2–26.6)	24.6 (21.9–27.3)	24.3 (21.8–26.9)		
	TU	22.1 (19.5–24.6)	22.2 (19.7–24.8)	22.4 (20.0–24.8)		

	Groups	Baseline	Week 54	GLM analysis	
			Posttreatment	*P* value vs. posttreatment	*P* value vs. groups
Fat (kg)	TD	15.1 (6.6–23.7)	14.4 (8.6–20.1)	$P = 0.051$	$P = 0.365$
	T-gel	21.9 (15.5–28.3)	20.4 (16.1–24.7)		
	TU	17.8 (12.2–23.3)	13.8 (10.1–17.5)		
Fat (%)	TD	26.7 (19.5–33.9)	23.7 (18.6–28.8)	$P = 0.001$	$P = 0.249$
	T-gel	30.1 (24.8–35.5)	27.6 (23.7–31–4)		
	TU	28.1 (23.5–32.7)	22.4 (19.0–25.6)		
Lean (kg)	TD	39.3 (34.0–44.5)	43.3 (38.5–48.2)	$P < 0.0005$	$P = 0.602$
	T-gel	44.7 (40.8–48.6)	48.5 (44.9–52.1)		
	TU	41.1 (37.7–44.5)	45.7 (42.6–48.9)		
Lumbar BMD (g/cm^2)	TD	1.07 (0.96–1.19)	1.03 (0.94–1.13)	$P = 0.360$	$P = 0.247$
	T-gel	1.09 (0.99–1.19)	1.08 (0.99–1.17)		
	TU	1.10 (1.00–1.20)	1.12 (1.03–1.20)		
Total BMD (g/cm2)	TD	1.13 (1.07–1.19)	1.13 (1.05–1.19)	$P = 0.360$	$P = 0.092$
	T-gel	1.16 (1.11–1.20)	1.15 (1.10–1.20)		
	TU	1.16 (1.12–1.21)	1.19 (1.13–1.24)		

Data are expressed as mean (95% CI)

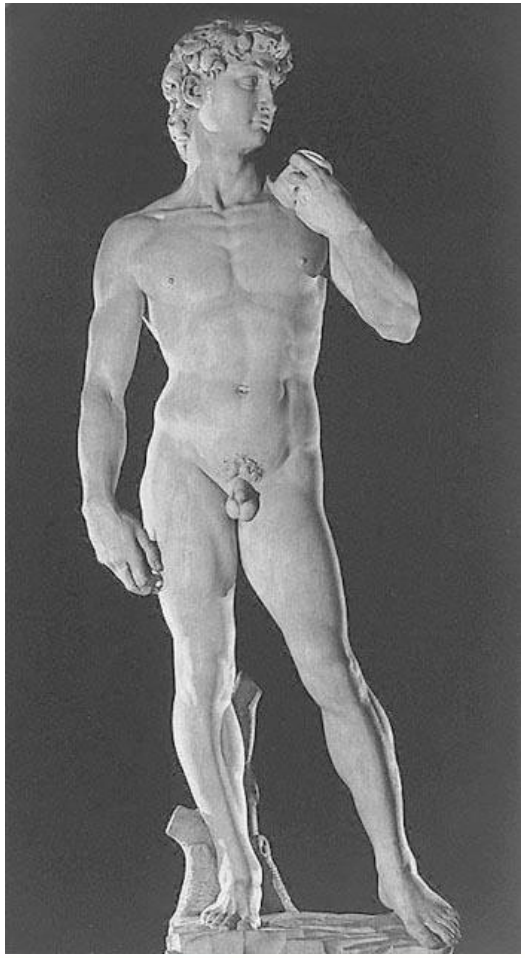
FtM – effetti della terapia ormonale

"FAVOREVOLI"

- Crescita di peli a livello del volto e del corpo
- Aumento della massa muscolare
- Ridistribuzione del grasso corporeo
- Abbassamento della voce
- Aumento del volume clitorideo
- *"Amenorrea"*
- Atrofia mammaria

"SFAVOREVOLI"

- Aumentate attività delle ghiandole sebacee, possibili lesioni acneiche
- Possibile alopecia androgenica
- Aumento dell'ematocrito
- Apnee del sonno
- Aumento peso, circonferenmza addominale
- Riduzione HDL colesterolo



RISCHI DELLA TERAPIA ORMONALE

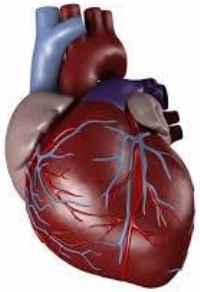


TABLE 2: RISKS ASSOCIATED WITH HORMONE THERAPY. BOLDED ITEMS ARE CLINICALLY SIGNIFICANT

Risk Level	Feminizing hormones	Masculinizing hormones
Likely increased risk	Venous thromboembolic disease[A] Gallstones Elevated liver enzymes Weight gain Hypertriglyceridemia	Polycythemia Weight gain Acne Androgenic alopecia (balding) Sleep apnea
Likely increased risk with presence of additional risk factors[B]	Cardiovascular disease	
Possible increased risk	Hypertension Hyperprolactinemia or prolactinom[A]	Elevated liver enzymes Hyperlipidemia
Possible increased risk with presence of additional risk factors[B]	Type 2 diabetes[A]	Destabilization of certain psychiatric disorders[C] Cardiovascular disease Hypertension Type 2 diabetes
No increased risk or inconclusive	Breast cancer	Loss of bone density Breast cancer Cervical cancer Ovarian cancer Uterine cancer

[A] Risk is greater with oral estrogen administration than with transdermal estrogen administration.
[B] Additional risk factors include age.
[C] Includes bipolar, schizoaffective, and other disorders that may include manic or psychotic symptoms. This adverse event appears to be associated with higher doses or supraphysiologic blood levels of testosterone.

European Journal of Endocrinology (2011) **164** 635–642 ISSN 0804-4643

CLINICAL STUDY

A long-term follow-up study of mortality in transsexuals receiving treatment with cross-sex hormones

Henk Asscheman[1], Erik J Giltay[3], Jos A J Megens[2], W (Pim) de Ronde[1], Michael A A van Trotsenburg[2] and Louis J G Gooren[1]

[1]*Endocrine Unit, Department of Internal Medicine and* [2]*Center of Expertise on Gender Dysphoria, VU University Medical Center, PO Box 7057, NL-1007 MB Amsterdam, The Netherlands and* [3]*Department of Psychiatry, Leiden University Medical Center, NL-2300 RC Leiden, The Netherlands*

(Correspondence should be addressed to H Asscheman who is now at HAJAP, Valeriusstraat 4hs, 1071 MH Amsterdam, The Netherlands; Email: h.ajap@worldonline.nl)

	Male-to-female transsexuals		Female-to-male transsexuals	
Cause of death	Observed cases	SMR (95% CI)	Observed cases	SMR (95% CI)
Malignant neoplasm	28	0.98 (0.88–1.08)	5	0.99 (0.65–1.44)
Lung	13	1.35 (1.14–1.58)	1	1.06 (0.26–3.19)
Digestive tract	3	0.42 (0.28–0.60)	2	2.41 (0.90–5.18)
Hematological	6	2.58 (1.97–3.30)	1	2.86 (0.69–8.57)
Brain	2	1.59 (0.95–2.46)	0	–
Other: kidney, melanoma, bone, and prostate in MtF. In FtM: leiomyosarcoma	4	0.79 (0.57–1.07)	1	0.77 (0.25–1.77)
Ischemic heart disease	18	1.64 (1.43–1.87)	1	1.19 (0.39–2.74)
Cerebrovascular accidents	5	1.26 (0.93–1.64)	0	–
AIDS	16	30.20 (26.0–34.7)	0	–
Endocrine/diabetes	2	0.85 (0.41–1.32)	0	–
Respiratory system diseases	4	0.85 (0.61–1.14)	0	–
Digestive system diseases	3	1.01 (0.68–1.45)	1	2.56 (0.62–7.69)
Genitourinary system disease (ESRD)	1	1.21 (0.58–2.17)	0	–
Nervous system disease (MS)	0		1	3.57 (0.86–10.7)
External causes	24	7.67 (6.84–8.56)	2	2.22 (1.07–5.44)
Illicit drugs use	5	13.20 (9.70–17.6)	1	25.00 (6.00–32.5)
Suicide	17	5.70 (4.93–6.54)	1	2.22 (0.53–6.18)
Unknown/ill-defined symptoms	21	4.00 (3.52–4.51)	2	2.08 (0.69–4.79)
Total	122	1.51 (1.47–1.55)	12	1.12 (0.89–1.59)

ESRD, end-stage renal disease; MS, multiple sclerosis.

FOLLOW-UP A LUNGO TERMINE

- "*General care*"
- Screening oncologico
- Rischio cardiovascolare
- Rischio osteoporotico

Endocrinologo
Infettivologo
Pediatra
Ginecologo
Urologo
Gruppi di supporto
La salute della persona transgender
MMG
Psicologo
Assistente sociale
Infermiera specializzata
Genetica Medica