La diagnostica sessuologica in endocrinologia

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Outline

- Erectile dysfunction
- Premature ejaculation

Sexual inventories

International Journal of Impotence Research (2005), 1–15
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www.nature.com/ijir

REVIEW

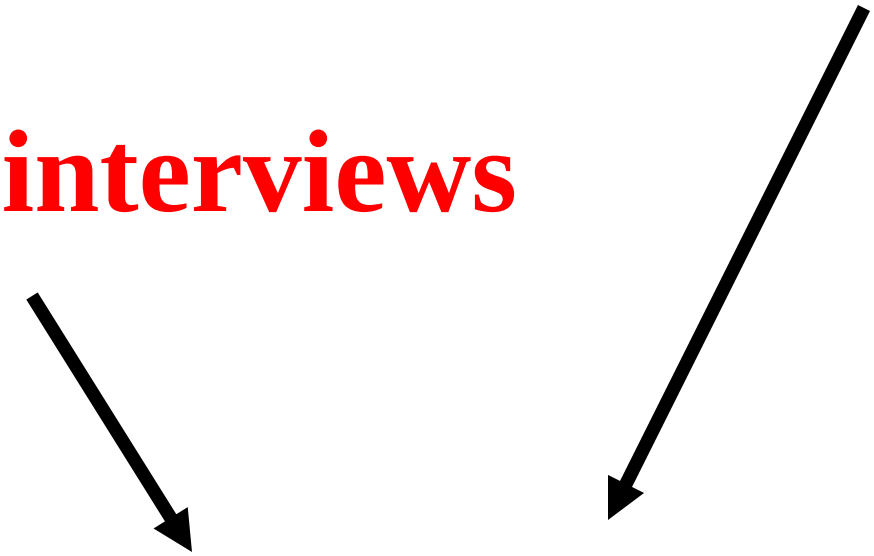
Inventories for male and female sexual dysfunctions

G Corona[1,3], EA Jannini[2,3] and M Maggi[1]

[1]*Andrology Unit, Department of Clinical Physiopathology, University of Florence, Florence, Italy and* [2]*Course of Endocrinology & Medical Sexology, Department of Experimental Medicine, University of L'Aquila, L'Aquila, Italy*

Self-report questionnaires

Structured interviews

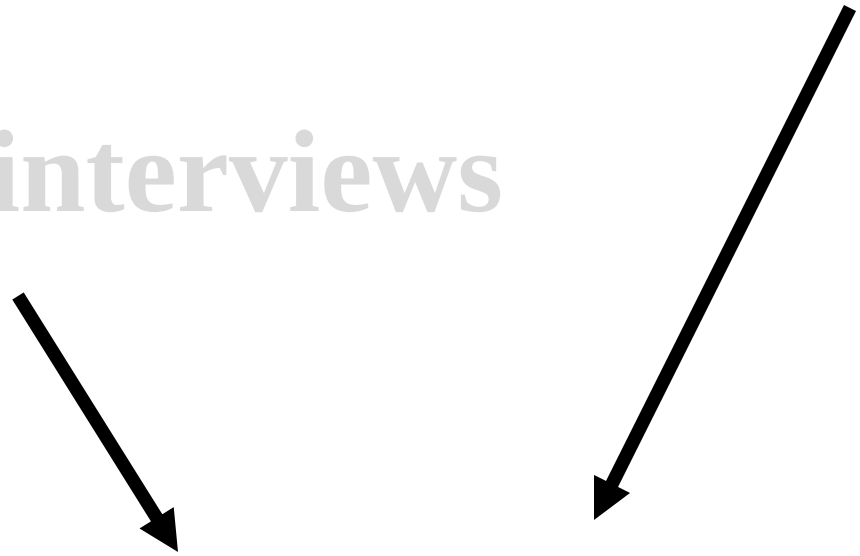


Set of standardized, written probe questions requiring a finite number of responses

Advantages	Disadvantages
Standardized	Risk of oversimplification
Easy to administer	Sensitive to language differences
Score	Sensitive to ethnic and religious factors
Cut-off	Sensitive to education factors
Inexpensive	Sensitive to cultural factors

Self-report questionnaires

Structured interviews



Set of standardized, written probe questions requiring a finite number of responses

these tools are…

Self-report questionnaires

Gold standard to evaluate the outcome of therapies

but…

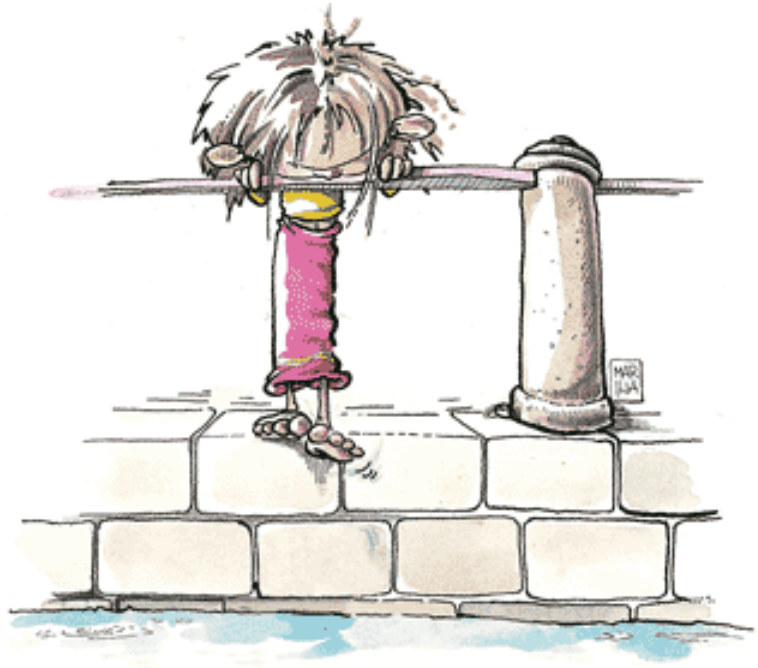
Self-report questionnaires

No information regarding pathogenesis of sexual problem

moreover…

Self-report questionnaires

Self- filled in

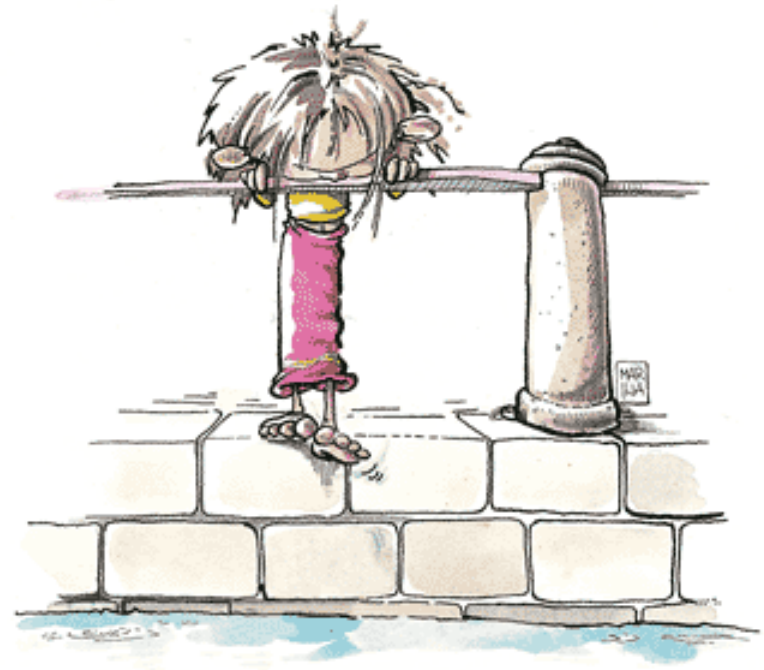


Self-report questionnaires

Possibility to not correctly understand the question

Self-report questionnaires

Mistakes

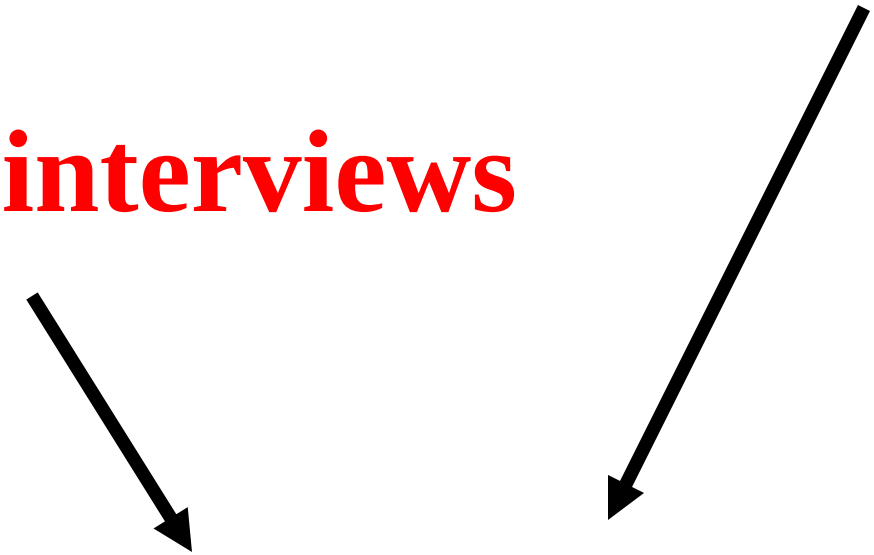


Self-report questionnaires

Interruption of physician-patient relationship

Self-report questionnaires

Structured interviews



Set of standardized, written probe questions requiring a finite number of responses

But…

Structured interviews

The question is red to respondents by the physician who can explain the technical terms used

reducing…

Structured interviews

…risk of

Misunderstandings

Embarrassing questions

Structured interviews

The question is red to respondents by the physician who can explain the technical terms used

facilitating…

Structured interviews

A virtuous, intimate physician-patient relationship

Structured interviews

The question is red to respondents by the physician who can explain the technical terms used

providing…

Structured interviews

information concerning pathogenetic components involved in sexual problem

Male sexual inventories

- **Self-report questionnaires on sexual function**
- **Self-report questionnaires on quality of life in ED patients**
- **Self-report questionnaires on satisfaction with ED treatments**
- **Structured interviews on ED**
- **Self-report questionnaires on premature ejaculation**

Outline

- **Erectile dysfunction**
- **Premature ejaculation**

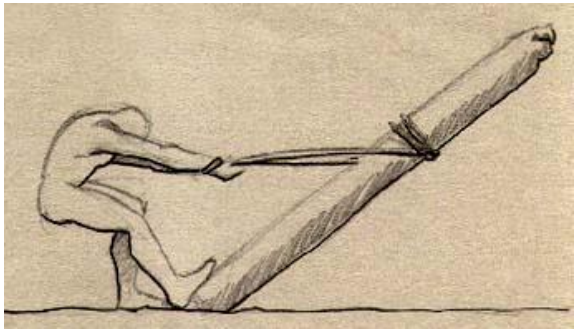
Male sexual inventories

- **Self-report questionnaires on sexual function**
- Self-report questionnaires on quality of life in ED patients
- Self-report questionnaires on satisfaction with ED treatments
- Structured interviews on ED
- Self-report questionnaires on premature ejaculation

IIEF International Index of Erectile Function

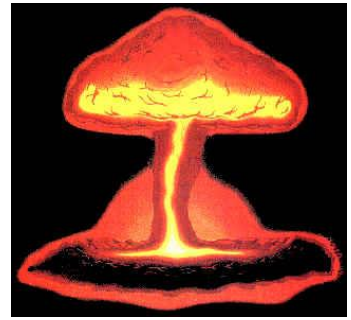
15 items, 5 domains:

Erectile function
6 items



Sexual desire
2 items

Orgasmic function
2 items



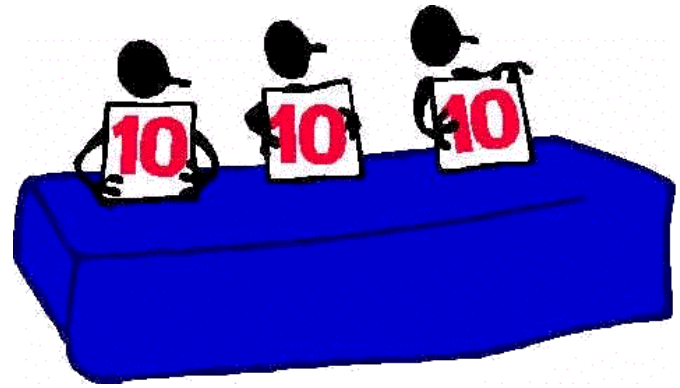
Intercourse satisfaction
3 items

Overall satisfaction
2 items

Rosen et al Urology. 1997;49:822

IIEF International Index of Erectile Function

Score



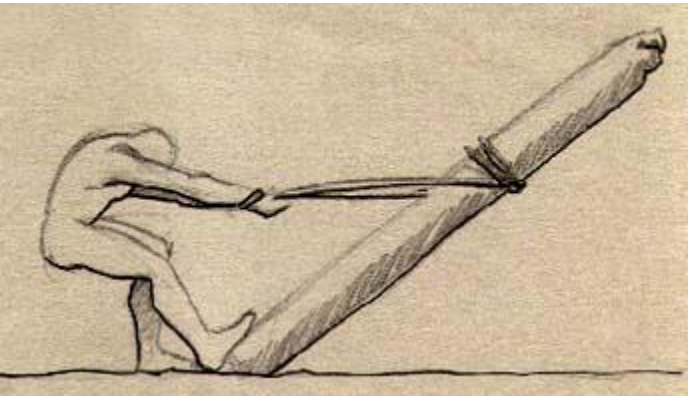
5 _____ 75

Worse sexual problem

Rosen et al Urology. 1997;49:822

Erectile function domain of IIEF-15 (IIEF-6)

6 items



Erection frequency (IIEF-15, item 1)

Erection firmness (IIEF-15, item 2)

Penetration ability (IIEF-15, item 3)

Maintenance frequency (IIEF-15, item 4)

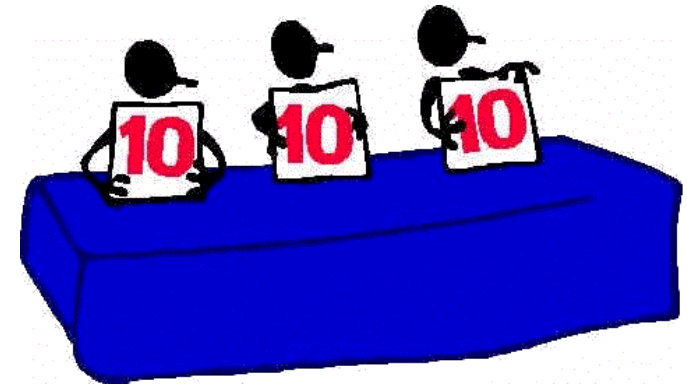
Maintenance ability (IIEF-15, item 5)

Erection confidence (IIEF-15, item 15)

Cappelleri et al Urology. 1999;54:346

Erectile function domain of IIEF-15 (IIEF-6)

Score



26-30 no ED

22-25 mild ED

17-21 mild to moderate ED

11-16 moderate ED

6-10 severe ED

Cappelleri et al Urology. 1999;54:346

Sexual Health Inventory for Men (SHIM)

5 items

Erection confidence (IIEF-15, item 15)

Erection firmness (IIEF-15, item 2)

Maintenance frequency (IIEF-15, item 4)

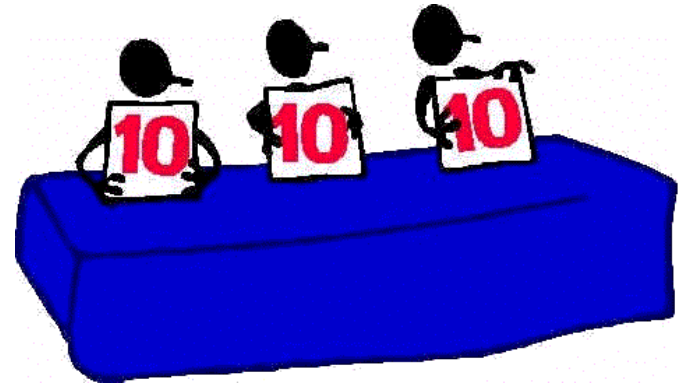
Maintenance ability (IIEF-15, item 5)

Intercourse satisfaction (IIEF-15, item 7)

Rosen et al., Int J Impot Res. 1999;11:319

Sexual Health Inventory for Men (SHIM)

Score



22-25 no ED

17-21 mild ED

12-16 mild to moderate ED

8-11 moderate ED

7-1 severe ED

Rosen et al., Int J Impot Res. 1999;11:319

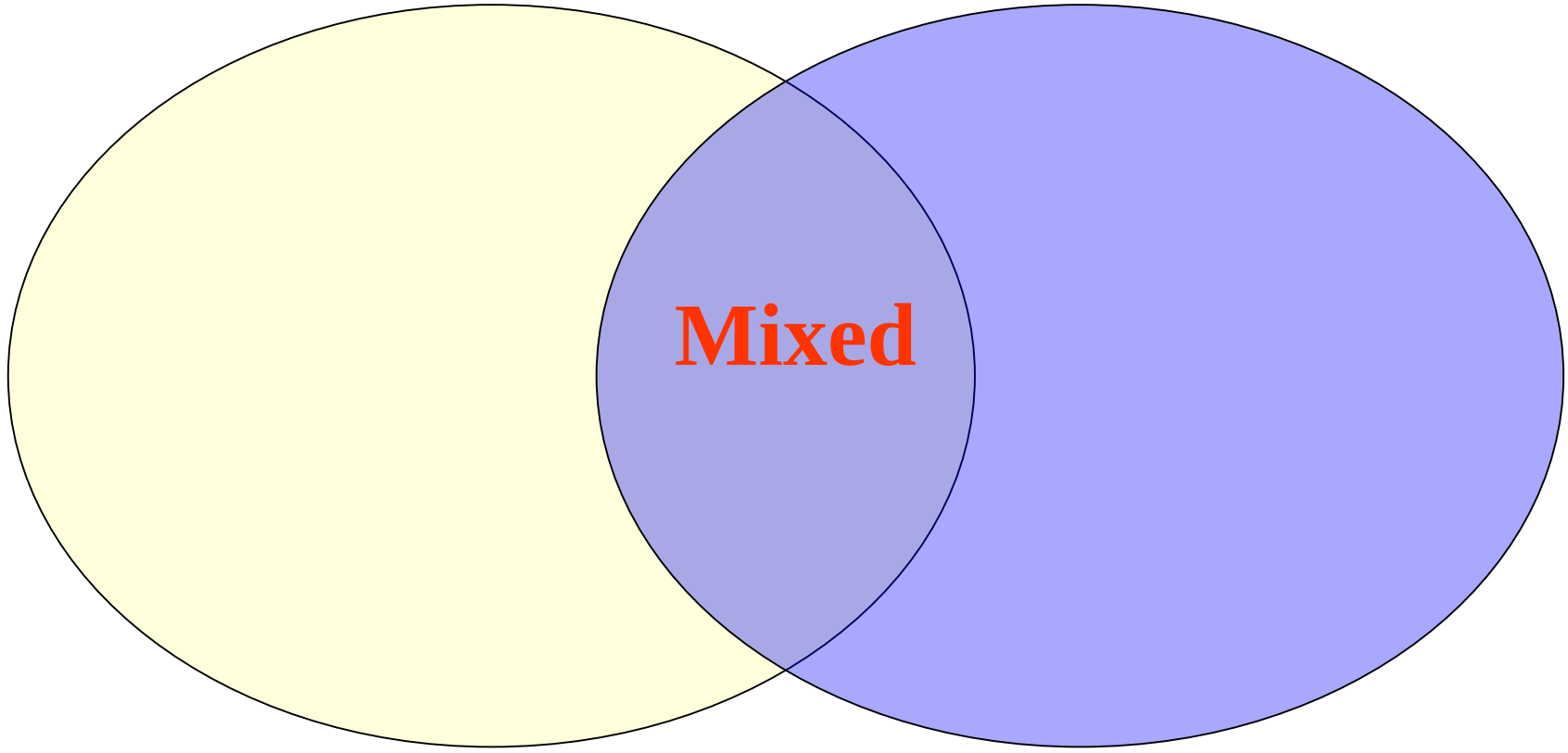
Erectile dysfunction

- **IIEF-15/IIEF-EFD/ IIEF-5 most frequently used self-reported questionnaires for ED**

Male sexual inventories

- Self-report questionnaires on sexual function
- Self-report questionnaires on quality of life in ED patients
- Self-report questionnaires on satisfaction with ED treatments
- **Structured interviews on ED**
- Self-report questionnaires on premature ejaculation

Erectile dysfunction causes



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Controversies in Sexual Medicine

Organic vs. Psychogenic? The Manichean Diagnosis in Sexual Medicine

Emmanuele A. Jannini, MD,* Marita P. McCabe, PhD, FAPS,† Andrea Salonia, MD,‡ Francesco Montorsi, MD,‡ and Benjamin D. Sachs, PhD§

Conclusions. The reader of the Journal will judge if there is still a room for the Manichean diagnosis of different sexual dysfunctions or if it is time to completely change our perspective on this essential aspect of clinical sexual medicine. **Jannini EA, McCabe MP, Salonia A, Montorsi F, and Sachs BD. Organic vs. psychogenic? The manichean diagnosis in sexual medicine. J Sex Med 2010;7:1726–1733.**

International Journal of Impotence Research (2003) 15, 210–220
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Structured interview on erectile dysfunction (SIEDY©): a new, multidimensional instrument for quantification of pathogenetic issues on erectile dysfunction

L Petrone[1], E Mannucci[2], G Corona[1], M Bartolini[3], G Forti[1], R Giommi[4] and M Maggi[1]*

[1]*Andrology Unit,* [2]*Endocrinology Unit,* [3]*Radiology Units; and* [4]*Department of Clinical Physiopathology, University of Florence and International Institute of Sexuology, Florence, Italy*

- **Scale 1 = organic component**
- **Scale 2 = relational component**
- **Scale 3 = intrapsychic component**

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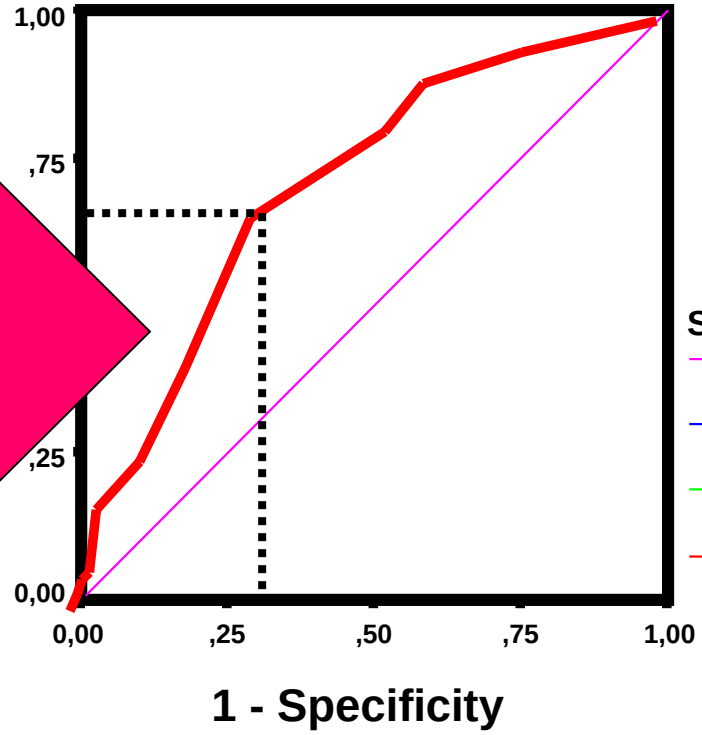
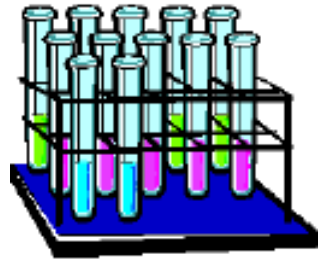
[1]*Andrology Unit,* [2]*Endocrinology Unit,* [3]*Radiology Units; and* [4]*Department of Clinical Physiopathology, University of Florence and International Institute of Sexuology, Florence, Italy*

- **Scale 1 = organic component**
- **Diabetes/hypertension/dyslipidemia**
- **Neurological diseases**
- **Reduced nocturnal erection or ejaculate volume**

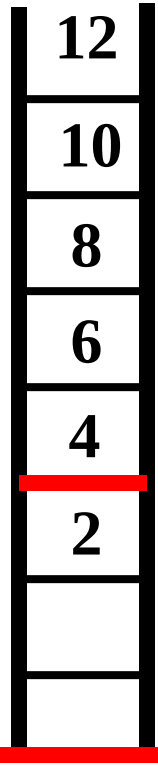
Scale 1

ROC curve
Scale 1 vs. PDU





Scale 1



Sensibility = 68%
Specificity = 68%

≥4.0

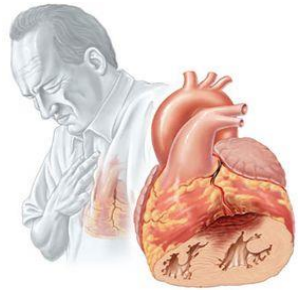
Cross-sectional & observational prospective studies of ED at the University of Florence

- SIEDY©

- ANDROTEST©

- Physical examination, hormonal parameters, psychiatric symptoms (MHQ)

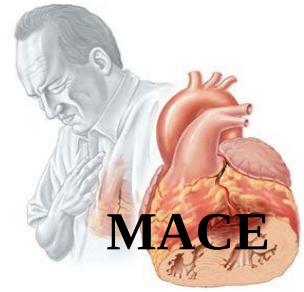
- Basal and dynamic penile color Doppler ultrasound



Corona et al., J. Sex. Med. 2010; 7:1918

Observational prospective study (2000-2007) of ED subjects at the University of Florence

- **SIEDY©**
- **ANDROTEST©**
- **Physical examination, hormonal parameters, psychiatric symptoms (MHQ)**
- **Basal and dynamic penile color Doppler ultrasound**



1687 Male subjects with sexual dysfunction

Mean follow up 4.3±2.6 years

City of Florence Registry Office:
major adverse cardiac events (MACE)

- **ischemic heart disease (ICD 410-4)**
- **other heart diseases (ICD 420-9)**
- **sudden death for cardiac d. (ICD 798-799)**
- **cerebrovascular diseases (ICD 430-4, 436-8)**
- **peripheral arterial diseseas (ICD 440)**

Corona et al., J. Sex. Med. 2010; 7:1918

Observational prospective study (2000-2007) of ED subjects at the University of Florence

- **SIEDY©**
- **ANDROTEST©**
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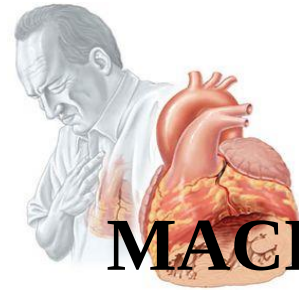
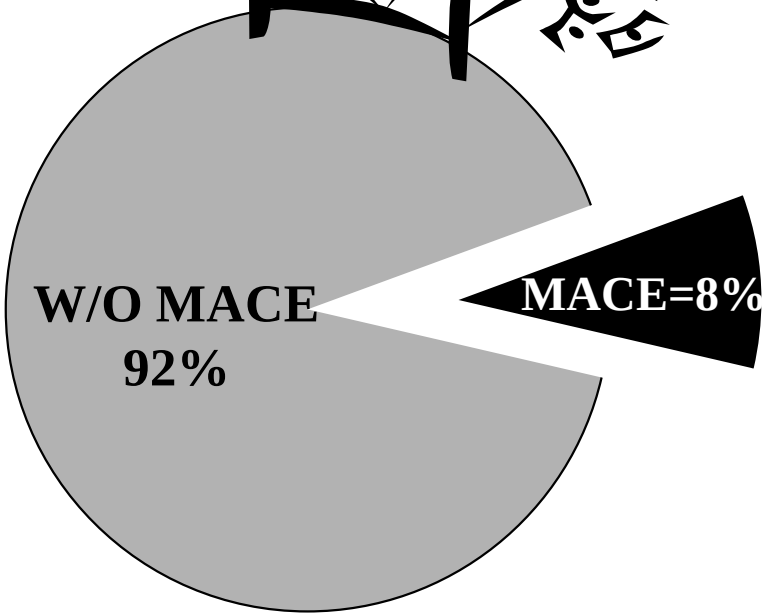
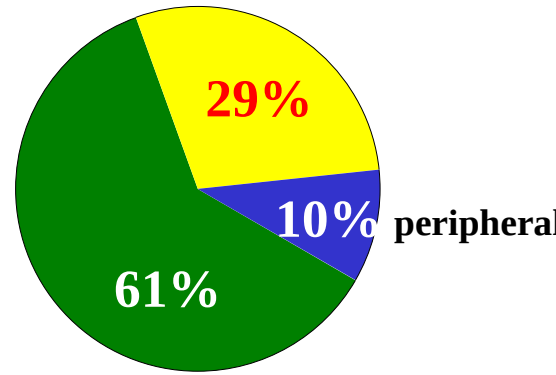
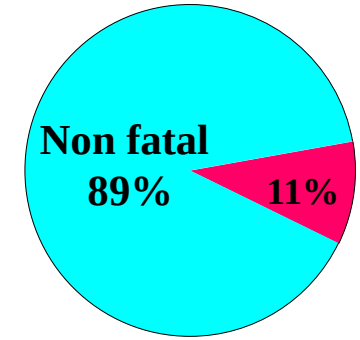


MACE

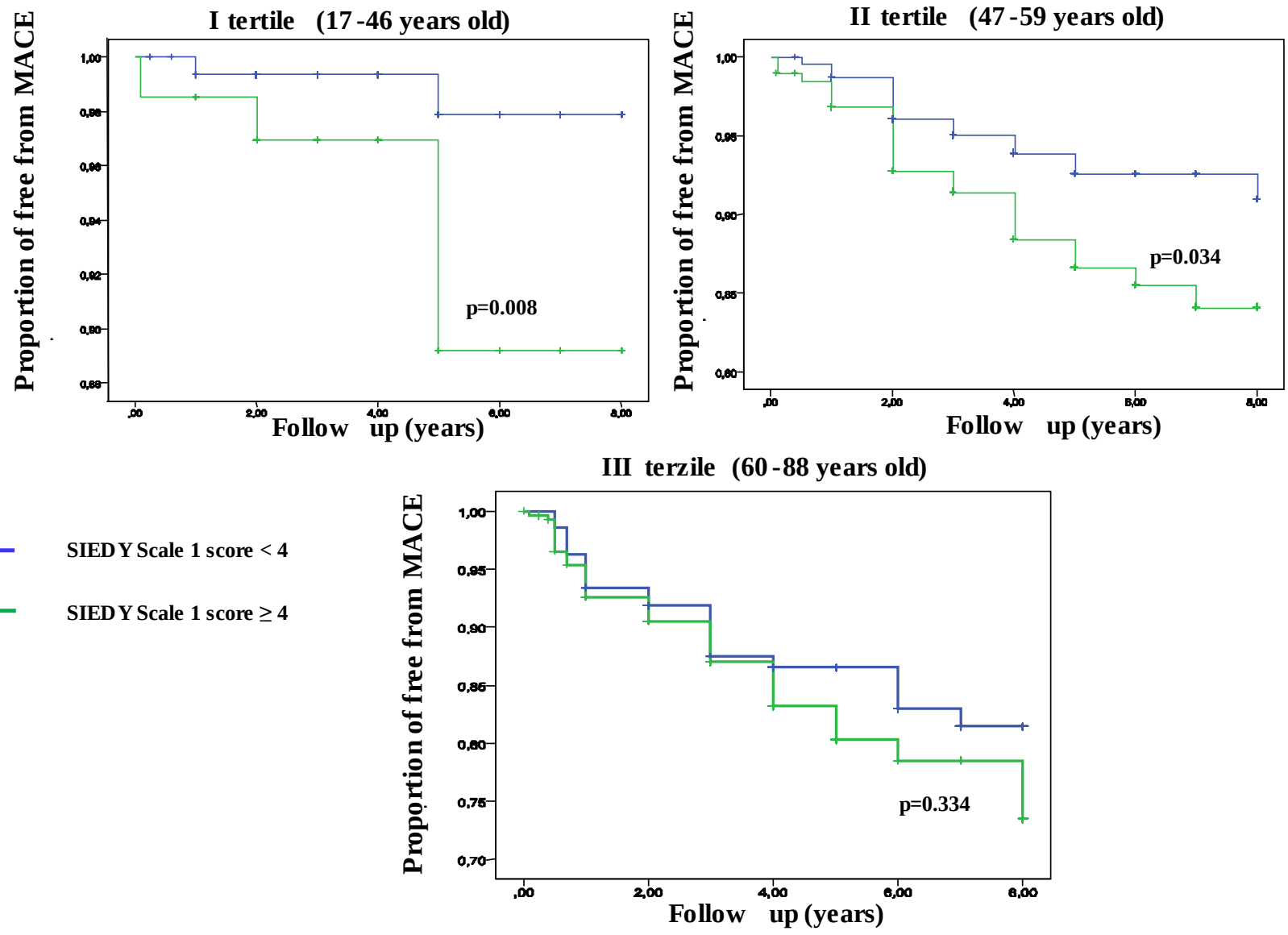






Corona et al., J. Sex. Med. 2010; 7:1918

Risk for incident major cardiovascular events (MACE) as derived from Kaplan Mayer curves in subjects with or without pathological SIEDY scale 1 in the different age tertiles



Corona et al., Best Pract Res Clin Endocrinol Metab. 2013;27:581

Erectile dysfunction

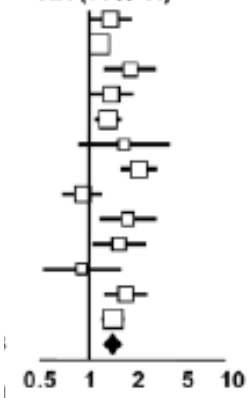
- **IIEF-15/IIEF-EFD/ IIEF-5 most frequently used self-reported questionnaires for ED**
- **Pathological SIEDY Scale 1 score predicts impaired penile blood flow and MACE**

ED is a risk facort for forthcoming CV diseases

A

Author	Population	RR	95% CI
Araujo 2010	GEN	1.40	1.04 - 1.88
Batty 2010	DM	1.19	1.08 - 1.32
Blumentals 2003, 2004	GEN	1.86	1.29 - 2.68
Böhm 2010	CVD	1.42	1.04 - 1.94
Chung 2011	GEN	1.35	1.13 - 1.61
Frantzen 2006	GEN	1.70	0.89 - 3.26
Gazzaruso 2008	DM	2.10	1.62 - 2.73
Hotaling 2012	GEN	0.93	0.70 - 1.23
Inman 2009	GEN	1.80	1.20 - 2.70
Ma 2008	DM	1.58	1.08 - 2.31
Ponholzer 2010	GEN	0.92	0.53 - 1.60
Schouten 2008	GEN	1.75	1.30 - 2.35
Thompson 2005	GEN	1.45	1.25 - 1.69

Total CV events

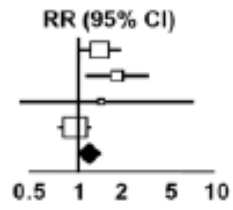


CV events 1.44[1.27;1.63]

B

Author	Population	RR	95% CI
Araujo 2009	GEN	1.43	1.00 - 2.05
Böhm 2010	CVD	1.93	1.13 - 3.29
Gazzaruso 2008	DM	1.47	0.30 - 7.14
Hotaling 2012	GEN	0.93	0.70 - 1.23

CV mortality

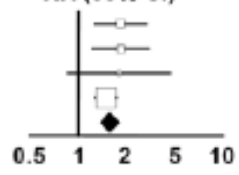


CV mortality 1.19[0.97;1.46]

C

Author	Population	RR	95% CI
Blumentals 2004	GEN	1.99	1.17 - 3.38
Böhm 2010	CVD	2.02	1.13 - 3.60
Gazzaruso 2008	DM	1.95	0.70 - 5.49
Thompson 2005	GEN	1.50	1.20 - 1.87

Myocardial infarction

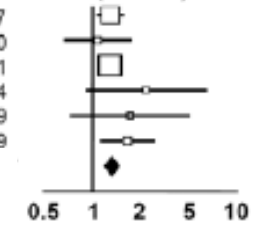


AMI 1.62[1.34;1.96]

D

Author	Population	RR	95% CI
Batty 2010	DM	1.36	1.11 - 1.67
Böhm 2010	CVD	1.10	0.64 - 1.90
Chung 2011	GEN	1.35	1.13 - 1.61
Gazzaruso 2008	DM	2.44	0.91 - 6.54
Ponholzer 2010	GEN	1.88	0.71 - 4.99
Thompson 2005	GEN	1.79	1.15 - 2.79

Cerebrovascular events

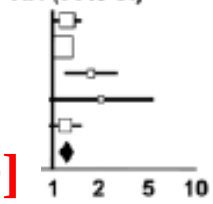


CE events 1.39[1.23;1.57]

E

Author	Population	RR	95% CI
Araujo 2009	GEN	1.26	1.01 - 1.57
Batty 2010	DM	1.16	0.99 - 1.35
Böhm 2010	CVD	1.84	1.21 - 2.80
Hebert 2009	HF	2.17	0.95 - 4.98
Thompson 2005	GEN	1.22	0.94 - 1.58

All-cause mortality



Overall mortality 1.25[1.12;1.39]

Vlachopoulos et al., Circ Cardiovasc Qual Outcomes. 2013;6:1

The Aging Male, December 2008; 11(4): 193–199

informa
healthcare

Why can patients with erectile dysfunction be considered lucky? The association with testosterone deficiency and metabolic syndrome

G. CORONA[1,2], G. FORTI[1], & M. MAGGI[1]

[1]*Department of Clinical Physiopathology, Andrology Unit, University of Florence, Florence, Italy, and* [2]*Endocrinology Unit, Maggiore-Bellaria Hospital, Bologna, Italy*

- ED subjects are "lucky" because they have a unique chance to :
  - -undergo medical examination
  - -improve not only their sexual life
  - -but, most importantly, their overall health

What can we say to Mario (54 ys old) and Rosina (51 ys old)?

What can we say to Mario (54 ys old) and Rosina (51 ys old)?

- **Pay attention Mario ED is a symptom of an underlying problem. Talk to your general physician or to an andrologist … Rosina please convince Mario to go to the doctor**

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Structured interview on erectile dysfunction (SIEDY©): a new, multidimensional instrument for quantification of pathogenetic issues on erectile dysfunction

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[1]*Andrology Unit,* [2]*Endocrinology Unit,* [3]*Radiology Units; and* [4]*Department of Clinical Physiopathology, University of Florence and International Institute of Sexuology, Florence, Italy*

- **Scale 2 = relational component**
- **Partner's diseases**
- **Partner's libido and climax**
- **Partner's menopausal symptoms**

"It Takes Two to Tango": The Relational Domain in a Cohort of Subjects with Erectile Dysfunction (ED)

Valentina Boddi, MD,* Giovanni Corona, MD,* Alessandra Daphne Fisher, MD,† Edoardo Mannucci, MD,‡ Valdo Ricca, MD,§ Alessandra Sforza, MD,¶ Gianni Forti, MD,† and Mario Maggi, MD†

*Department of Physiopathology, Andrology Unit, Florence, Italy; †Department of Clinical Physiopathology, Andrology Unit, University of Florence, Florence, Italy; ‡Department of Critical Care, Diabetes Section Geriatric Unit, University of Florence, Florence, Italy; §Psychiatric Unit, University of Florence, Florence, Italy; ¶Endocrinology Unit, Maggiore-Bellara Hospital, Bologna, Italy

Valentina Boddi and Giovanni Corona equally contributed to the manuscript.

DOI: 10.1111/j.1743-6109.2012.02948.x

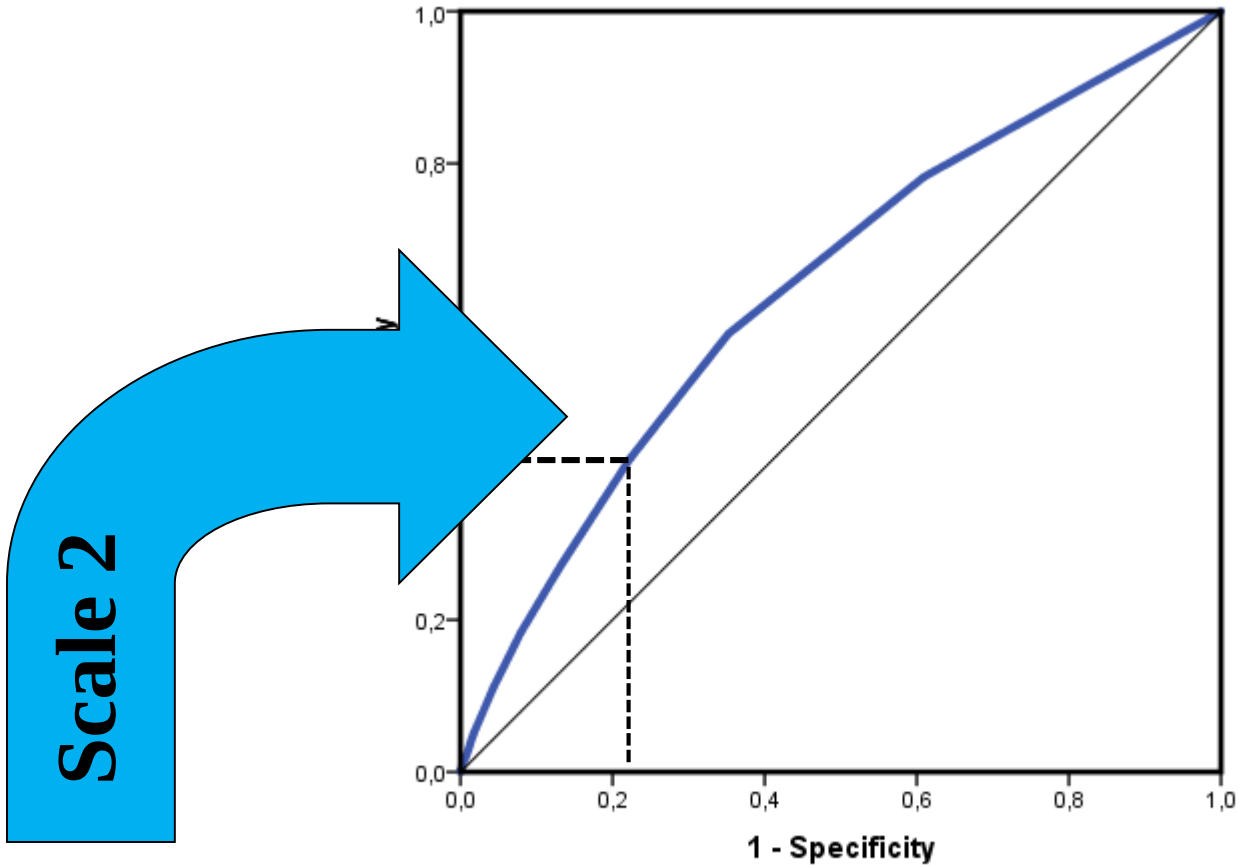
Presence of conflicts within the couple and/or
Reported extramarital affairs

↓

Assumed as reflected the presence of a dysfunctional relationship.

Boddi et al., J. Sex. Med. 2012; 9:3126

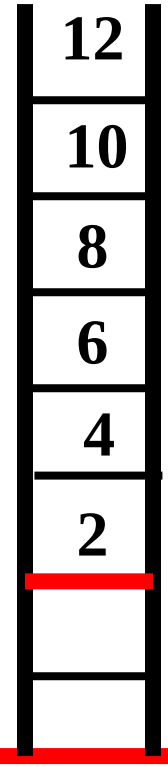
ROC curve
Scale 2 vs. impaired couple fitness



Scale 2

Sensibility = 59%
Specificity = 78%

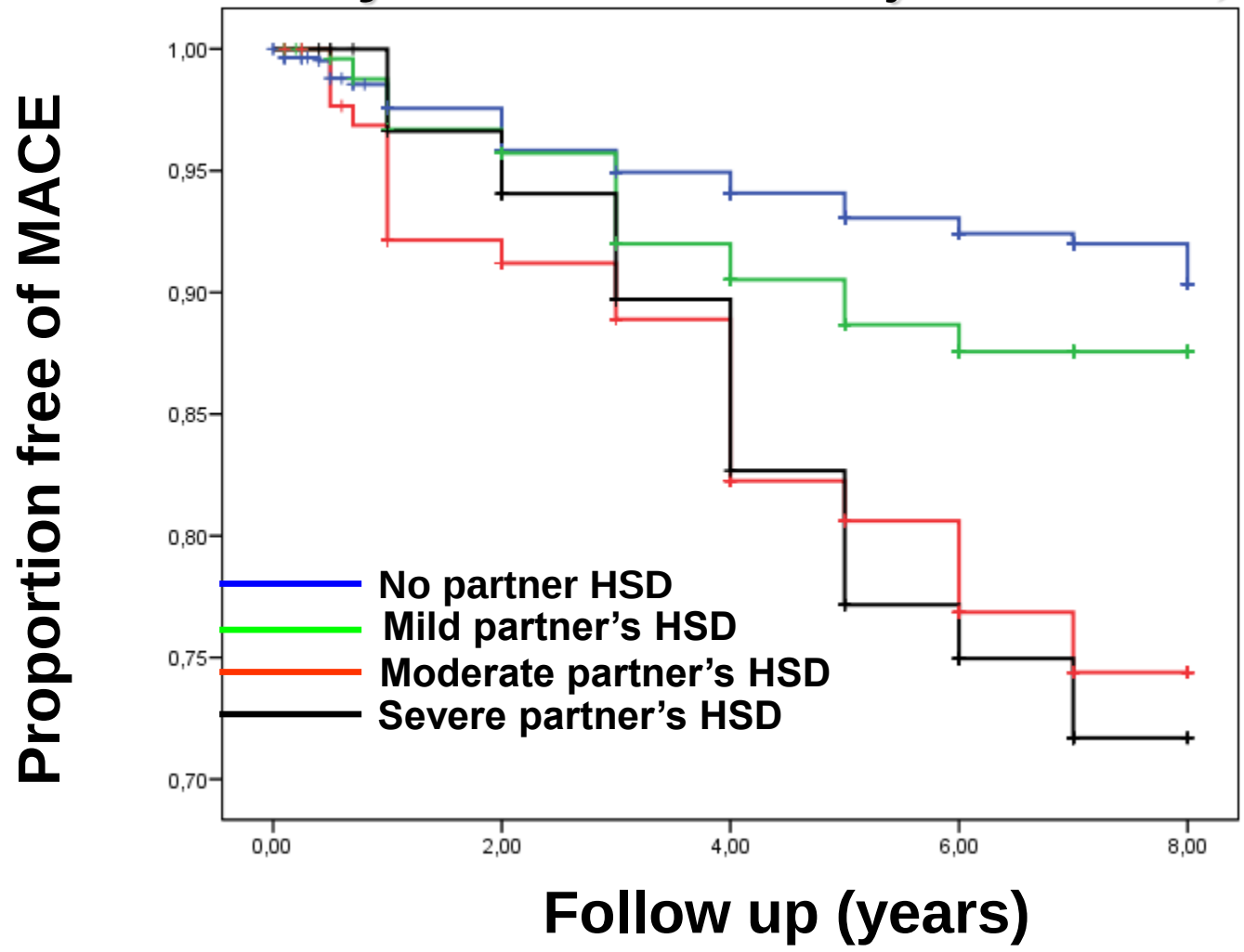
Scale 2



≥2.0

Boddi et al., J. Sex. Med. 2012; 9:3126

Proportion free of MACE (Kalplan-Meier curves) as a function of baseline reported partner's hypoactive sexual desire in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



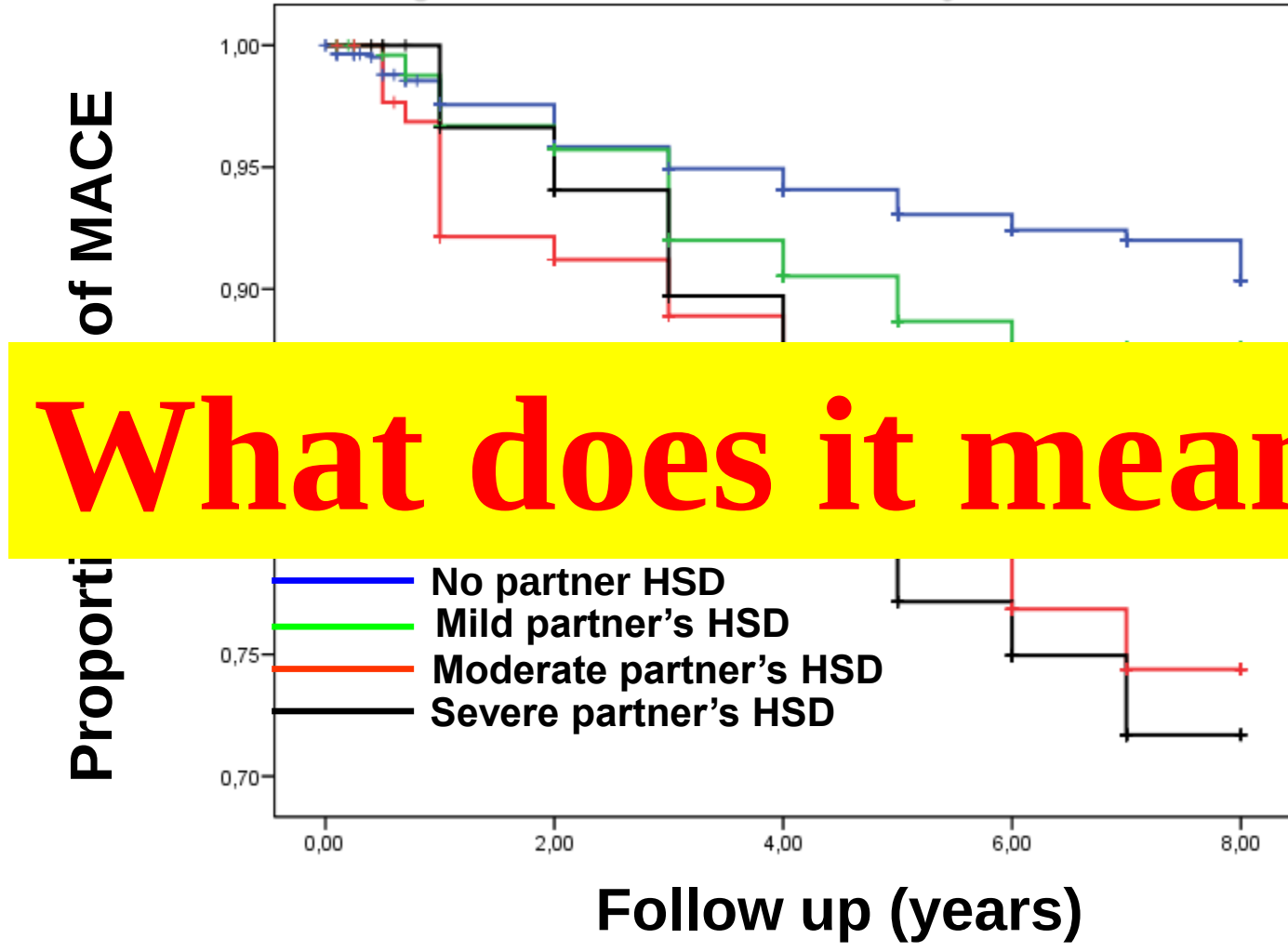
p<0.0001 vs. no HSD

p<0.0001 vs. no HSD

Having a partner who love you is not only fun,

…but it also protects from MACE (Cox regression HR=2.01 [1.34-3.02])

Proportion free of MACE (Kalplan-Meier curves) as a function of baseline reported partner's hypoactive sexual desire in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



What does it mean?

Having a partner who love you is not only fun,

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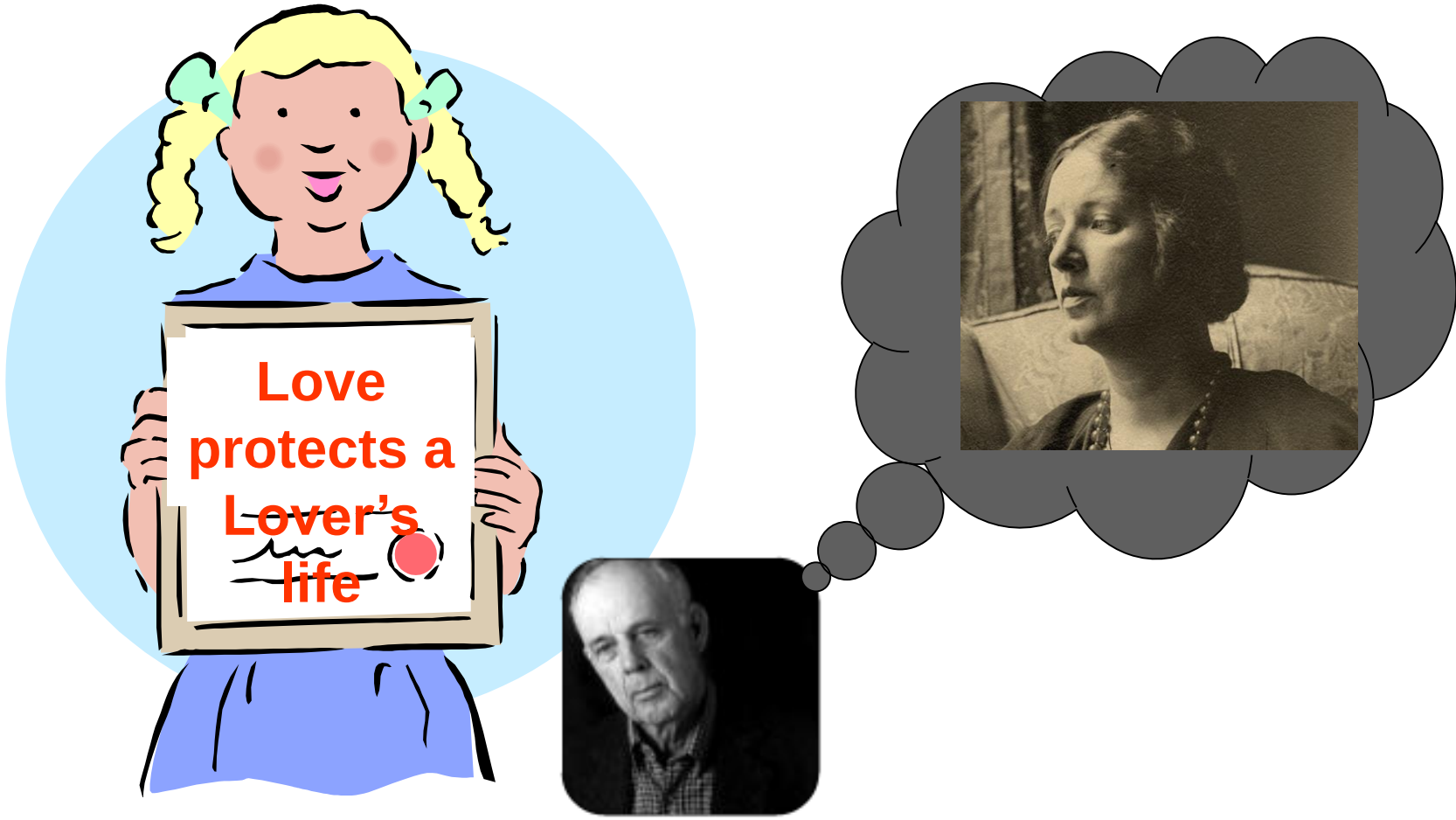
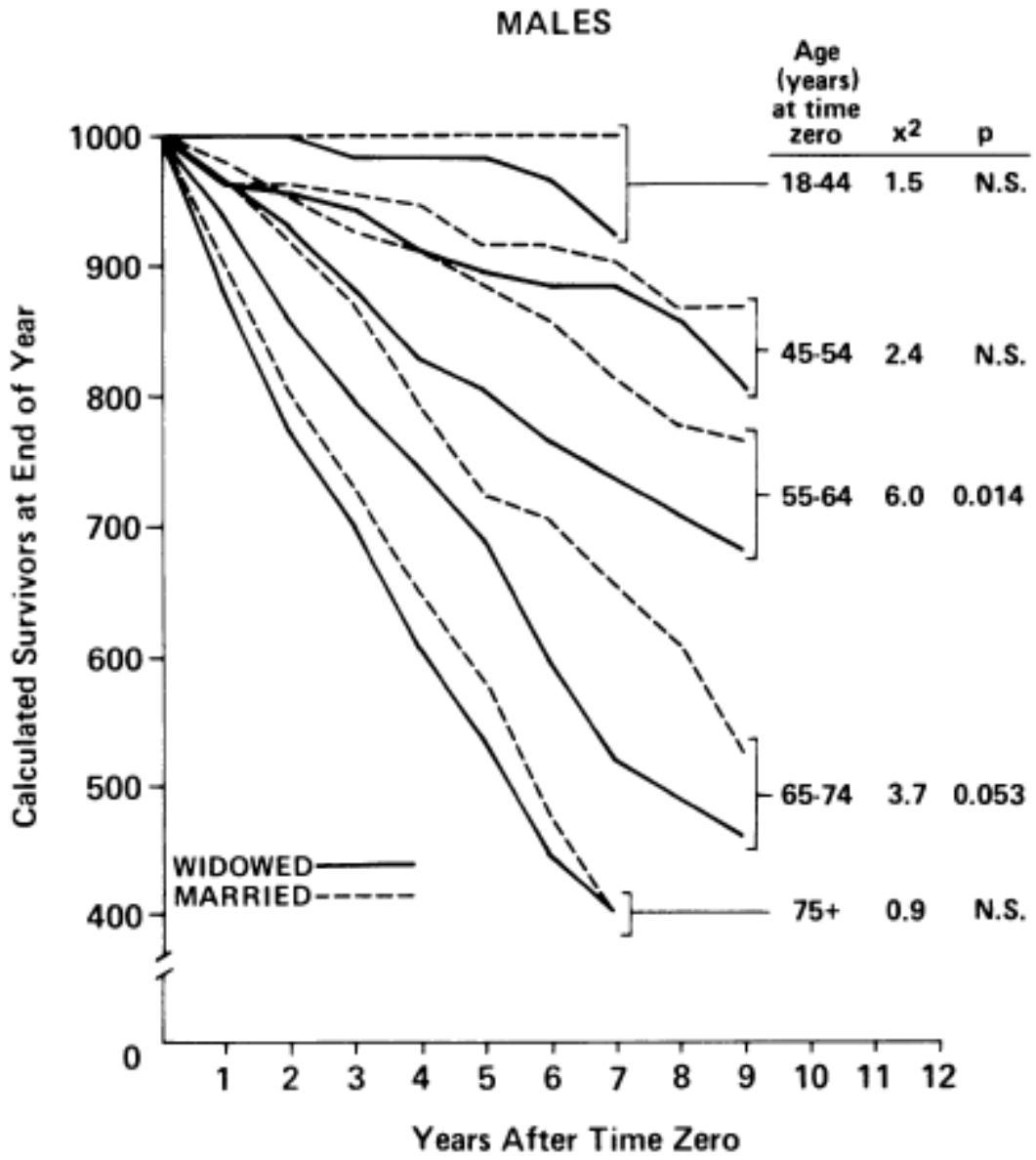


"Widowhood effect": decreased male survival following the death of a spouse

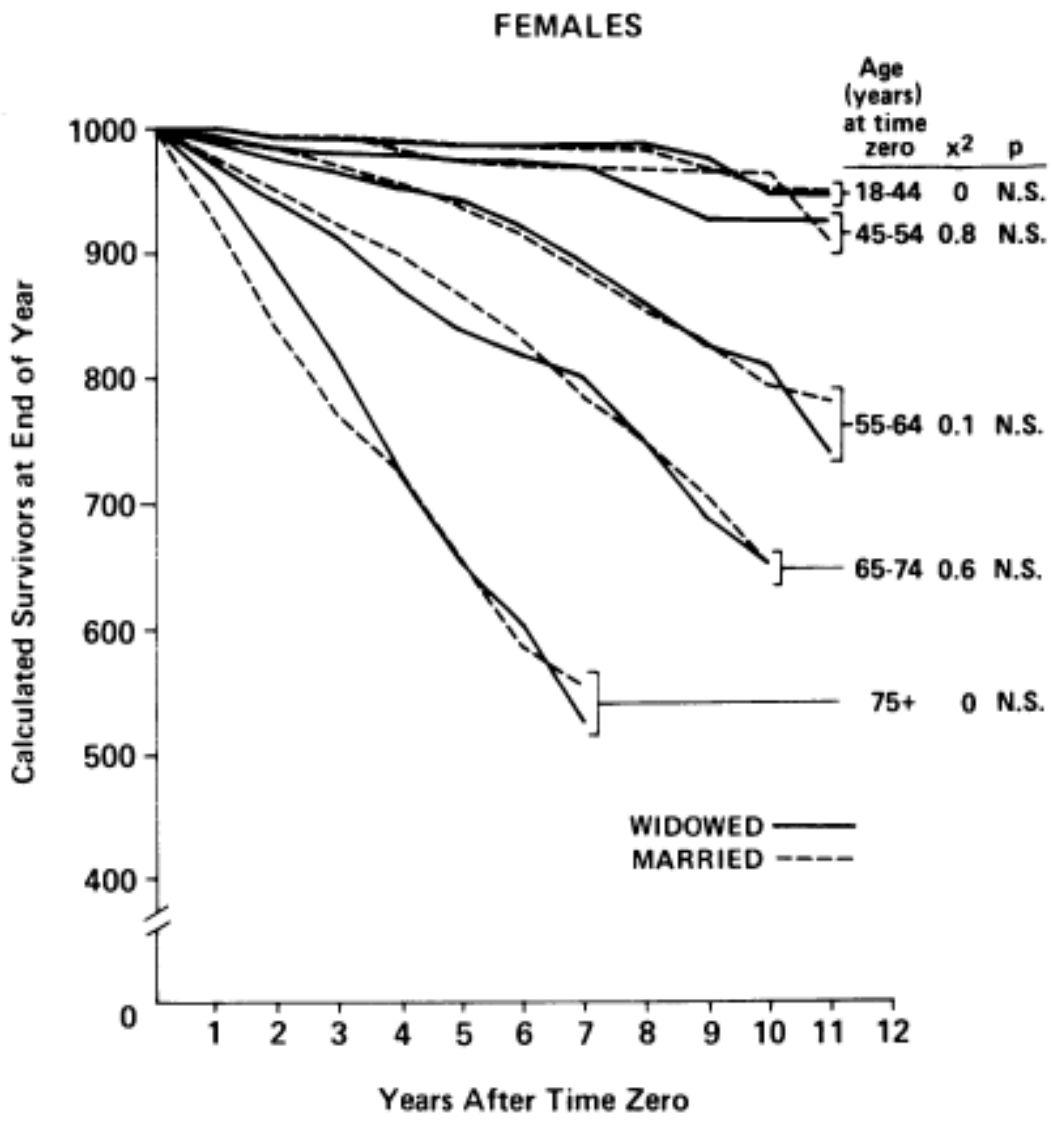
Waite LJ. Does marriage matter? Demography. 1995;32:483–507.
Umberson D. Family status and health behaviors: social control as a dimension of social integration. J Health Soc Behav. 1987;28:306–319.
Dupre ME, Beck A, Meadows SO. Marital trajectories and mortality among US adults. Am J Epidemiol. 2009;170:546-55.

Widowhood effect:



Helsing *et al.*, Am J Public Health. 1981; 71 :802

Widowhood effect:



Helsing *et al.*, Am J Public Health. 1981; 71 :802

The partner pushes the other to:

↓ **risky behaviors**

↑ **healthy behaviors**

↑ **use healthcare services**

Erectile dysfunction

- **IIEF-15/IIEF-EFD/ IIEF-5 most frequently used self-reported questionnaires for ED**
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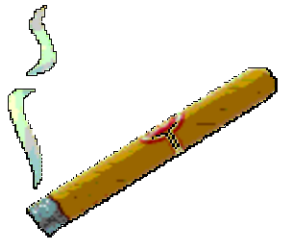
- **Pay attention Mario ED is a symptom of an underlying problem. Talk to your general physician or to an andrologist … Rosina please convince Mario to go to the doctor**
- **The lack of love represents an independent CV risk factor**

Psychobiological Correlates of Women's Sexual Interest as Perceived by Patients with Erectile Dysfunction

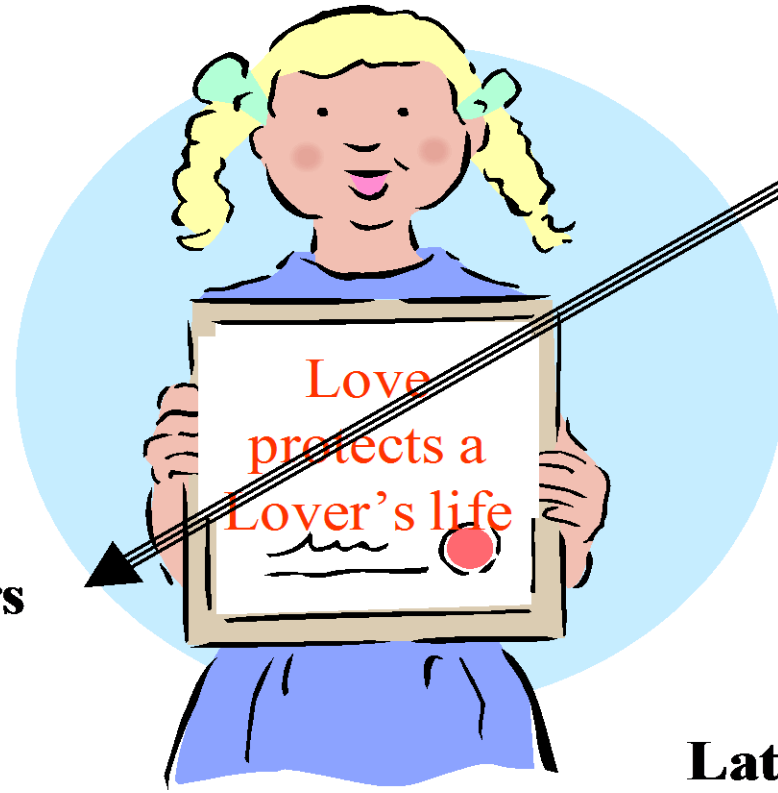
Giovanni Corona, MD,*‡ Elisa Bandini, MD,* Alessandra Fisher, MD,* Maseroli Elisa, MD,* Valentina Boddi, MD,* Giancarlo Balercia, MD,† Alessandra Sforza, MD,‡ Gianni Forti, MD,* Edoardo Mannucci, MD,§ and Mario Maggi, MD*

*Andrology Unit, Department of Clinical Physiopathology, University of Florence, Florence Italy; †Endocrinology Unit, Polytechnic University of Marche, Ancona, Italy; ‡Endocrinology Unit, Medical Department, Azienda Usl, Maggiore-Bellaria Hospital, Bologna, Italy; §Diabetes Section Geriatric Unit, Department of Critical Care, University of Florence, Florence, Italy

DOI: 10.1111/j.1743-6109.2010.01812.x



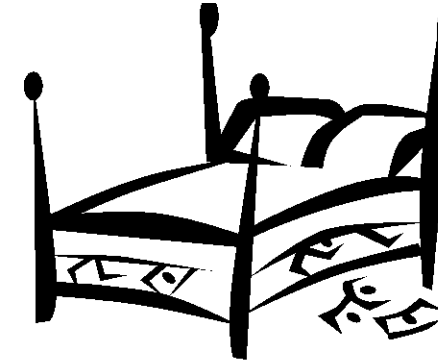
Risky behaviours



Erectile dysfunction

+

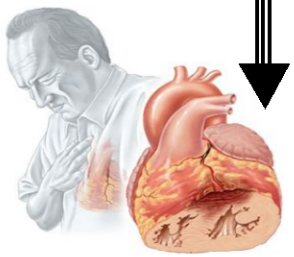
Perceived reduced partner's sexual interest



Later referral to Andrology Clinic

Later checking for ED comorbidities

More MACE



Corona et al., J Sex Med. 2010;7:2174

International Journal of Impotence Research (2003) 15, 210–220
© 2003 Nature Publishing Group All rights reserved
0955-9930/03 $25.00
www.nature.com/ijir

Structured interview on erectile dysfunction (SIEDY©): a new, multidimensional instrument for quantification of pathogenetic issues on erectile dysfunction

L Petrone[1], E Mannucci[2], G Corona[1], M Bartolini[3], G Forti[1], R Giommi[4] and M Maggi[1]*

[1]*Andrology Unit,* [2]*Endocrinology Unit,* [3]*Radiology Units; and* [4]*Department of Clinical Physiopathology, University of Florence and International Institute of Sexuology, Florence, Italy*

- **Scale 3 = intrapsychic component**
- **Job satisfaction/stress**
- **Conflicts within couple and family**
- **Extramarital affairs, patient's libido**

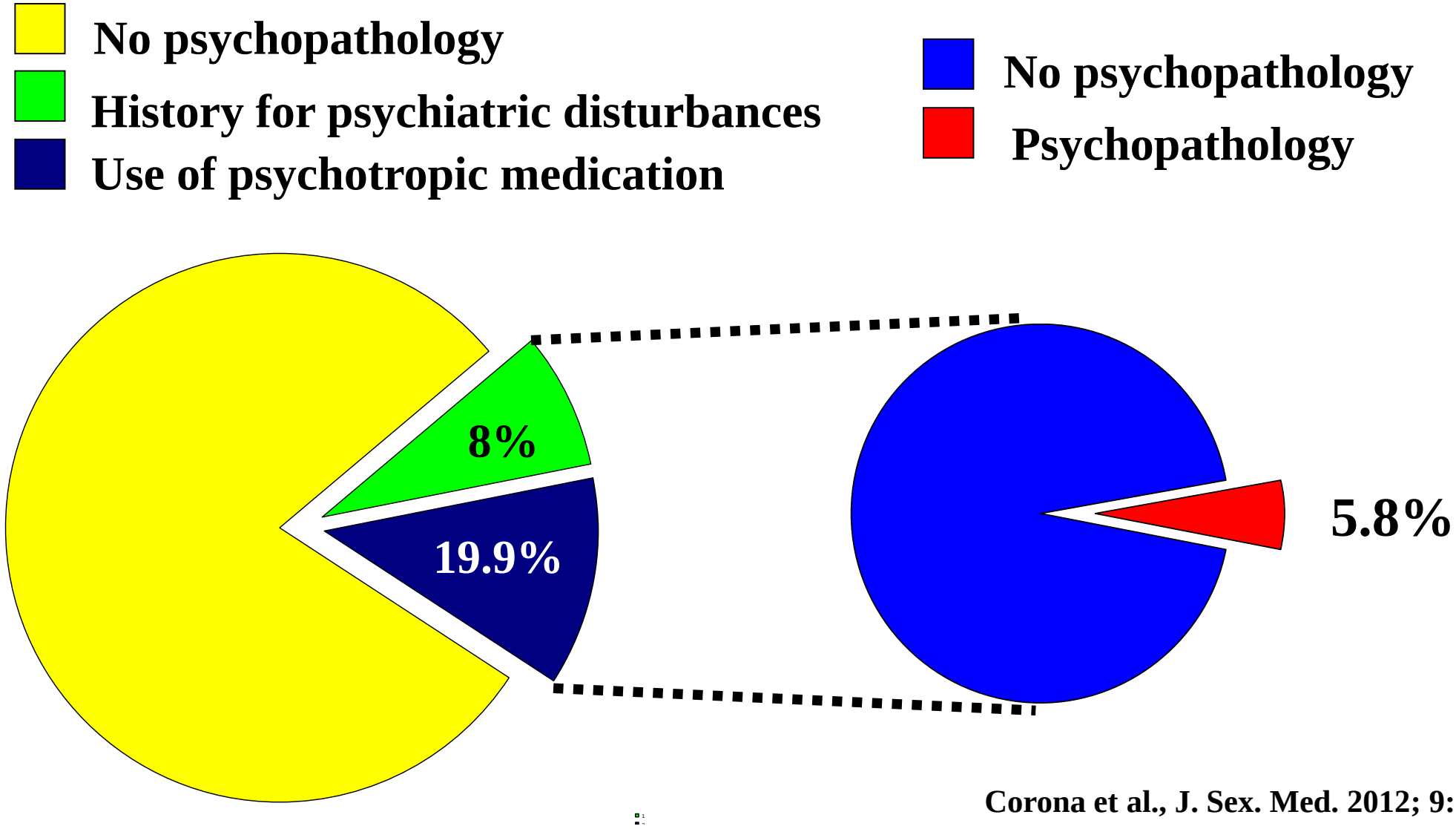
SIEDY Scale 3, a New Instrument to Detect Psychological Component in Subjects with Erectile Dysfunction

Giovanni Corona, MD, PhD,*§ Valdo Ricca, MD,† Elisa Bandini, MD,* Giulia Rastrelli, MD,* Helen Casale, MD,* Emmanuele A. Jannini, MD,‡ Alessandra Sforza, MD,§ Gianni Forti, MD,¶ Edoardo Mannucci, MD,** and Mario Maggi, MD*

*Andrology and Sexual Medicine Unit, Department of Clinical Physiopathology, University of Florence, Florence Italy; †Psychiatry Unit, Department of Neurological and Psychiatric Sciences, University of Florence, Florence Italy; ‡School of Sexology, Department of Experimental Medicine, University of L'Aquila, L'Aquila, Italy; §Endocrinology Unit, Medical Department, Azienda Usl, Maggiore-Bellaria Hospital, Bologna, Italy; ¶Endocrinology Unit, Department of Clinical Physiopathology, University of Florence, Florence Italy; **Diabetes Section Geriatric Unit, Department of Critical Care, University of Florence, Italy

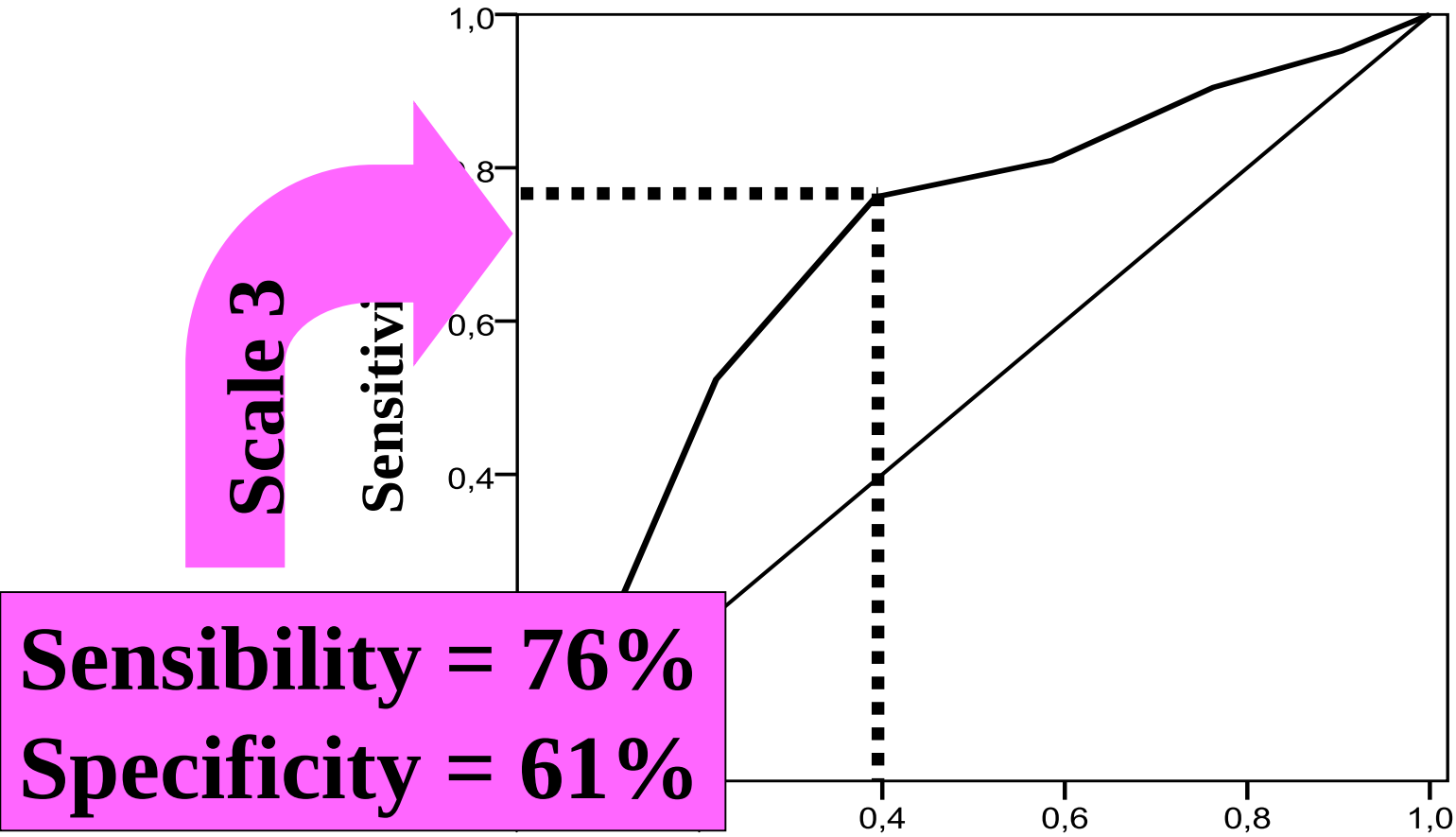
DOI: 10.1111/j.1743-6109.2012.02762.x

Prevalence of psychopatology in a subset of 484 heterosexual ED subjects at the University of Florence, Florence, Italy



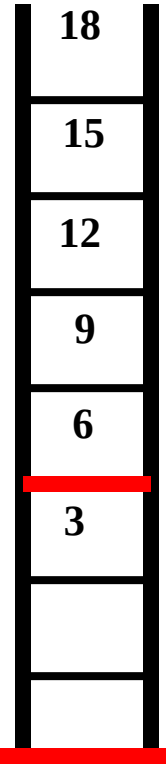
Corona et al., J. Sex. Med. 2012; 9:2017

ROC curve for SIEDY scale 3 score in detecting psychopathology (medical history of psychiatric disturbances and the use of psychotropic medication).



Sensibility = 76%
Specificity = 61%

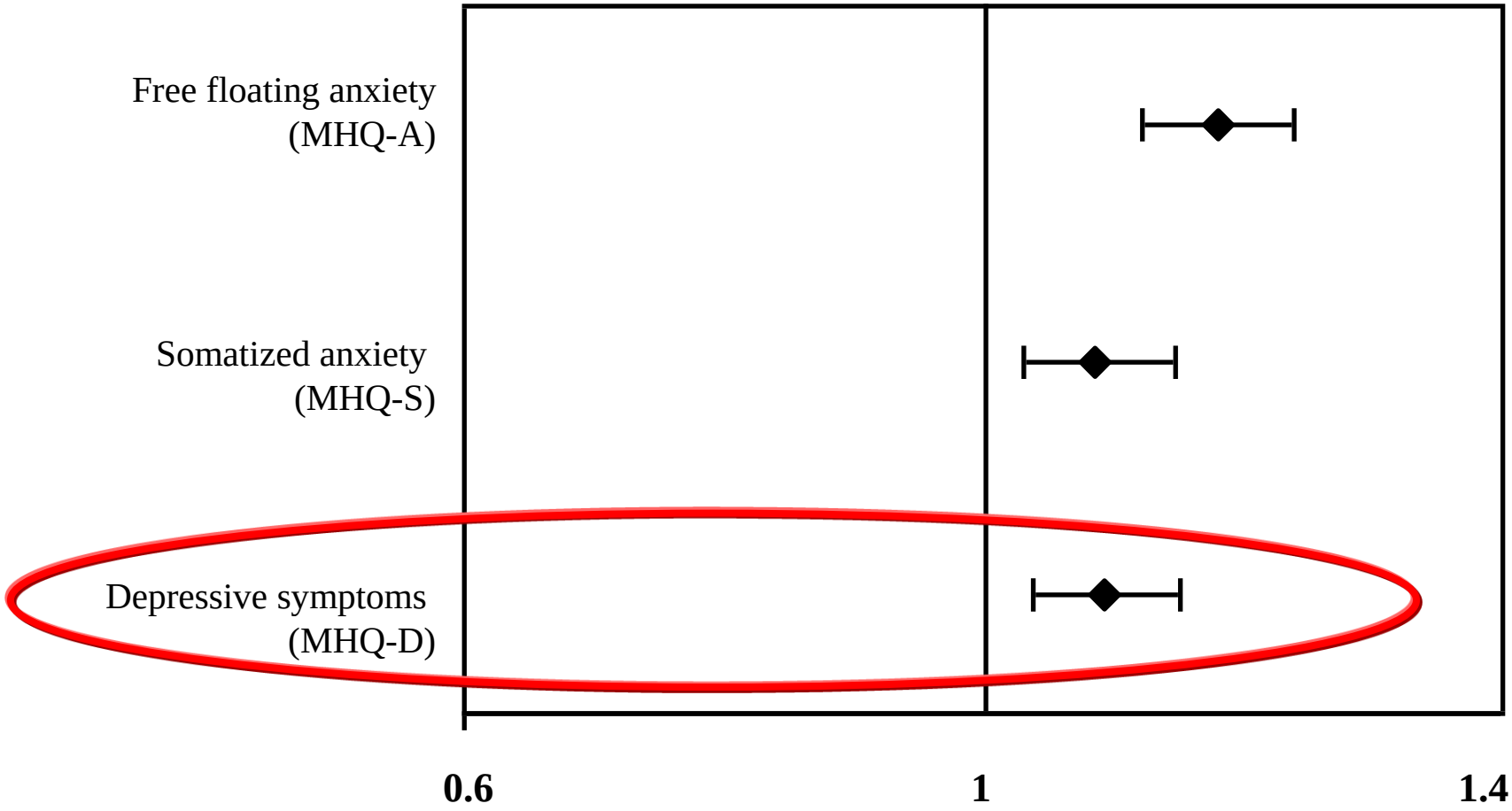
Scale 3



≥3.0

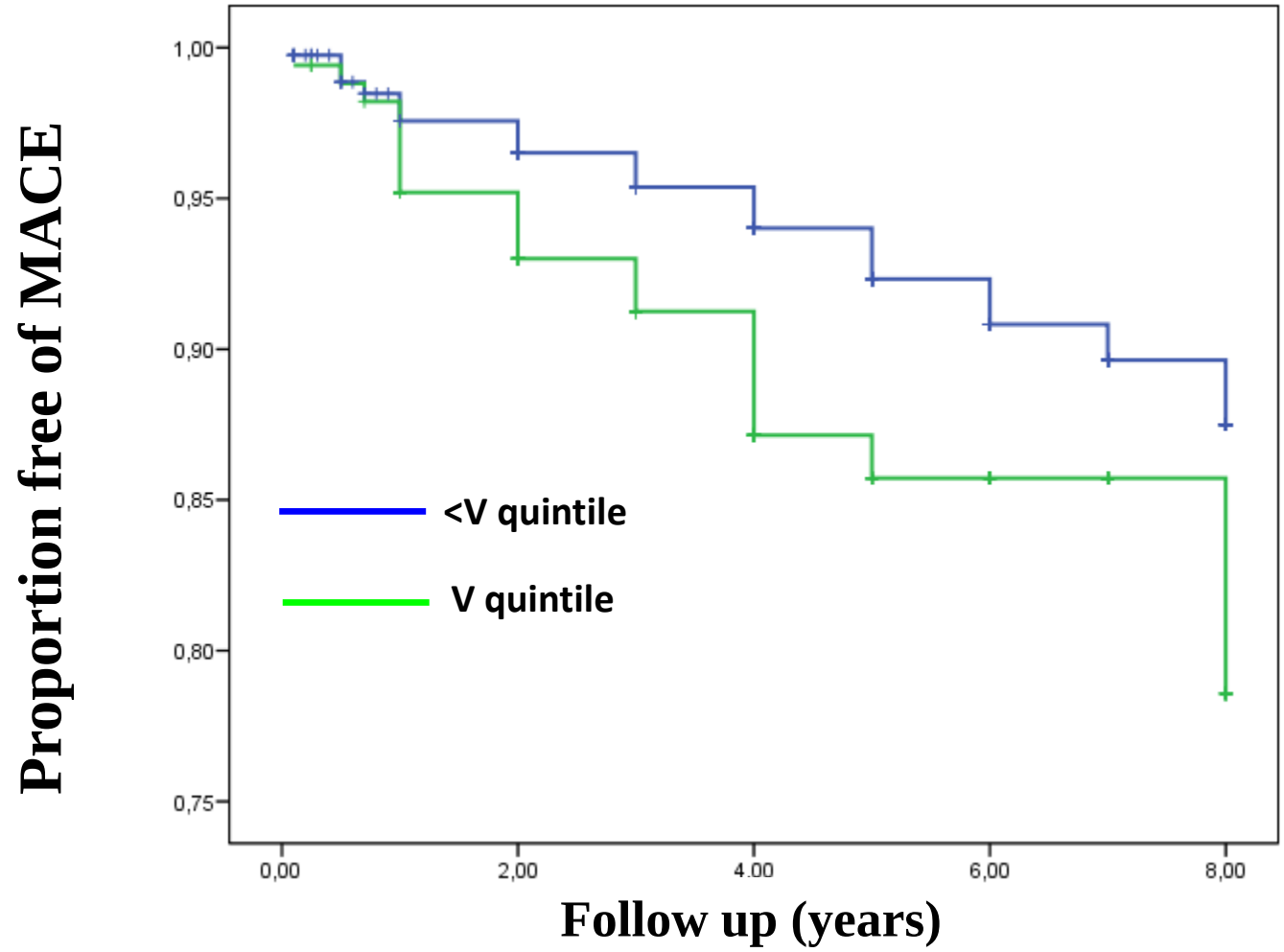
Corona et al., J. Sex. Med. 2012; 9:2017

Adjusted (age and Σ-MHQ-score) risk for pathological SIEDY scale 3 score in the validation sample



Corona et al., J. Sex. Med. 2012; 9:2017

Proportion free of MACE (Kalplan-Meier curves) as a function of baseline depressive symptoms (MHQ-D quintiles) in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



p<0.05 vs. <V quintile

Having a MHQ-D score in the highest quintile is associated with an increase risk of MACE (Cox regression HR= 2.097 [1.11-3.96])

INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY
Int J Geriatr Psychiatry 2007; **22**: 613–626.
Published online 19 January 2007 in Wiley InterScience
(www.interscience.wiley.com) **DOI**: 10.1002/gps.1723

Depression and the risk for cardiovascular diseases: systematic review and meta analysis

Koen Van der Kooy[1], Hein van Hout[1]*, Harm Marwijk[1], Haan Marten[1], Coen Stehouwer[2] and Aartjan Beekman[3]

[1]*VU University Medical Center, Amsterdam, The Netherlands*
[2]*Department of Internal Medicine, University Hospital Maastricht, Maastricht, The Netherlands*
[3]*Psychiatry, GGZ Buitenamstel, Amsterdam, The Netherlands*

Higher risk of MI	**1.60 [1.34-1.92]**
Higher risk of CHD	**1.48 [1.29-1.79]**
Higher risk of stroke	**1.43 [1.17-1.79]**
Higher risk of CVD	**1.63 [1-26-2.12]**

Perceived Partner's HSD

➢ **Relational domain of ED**

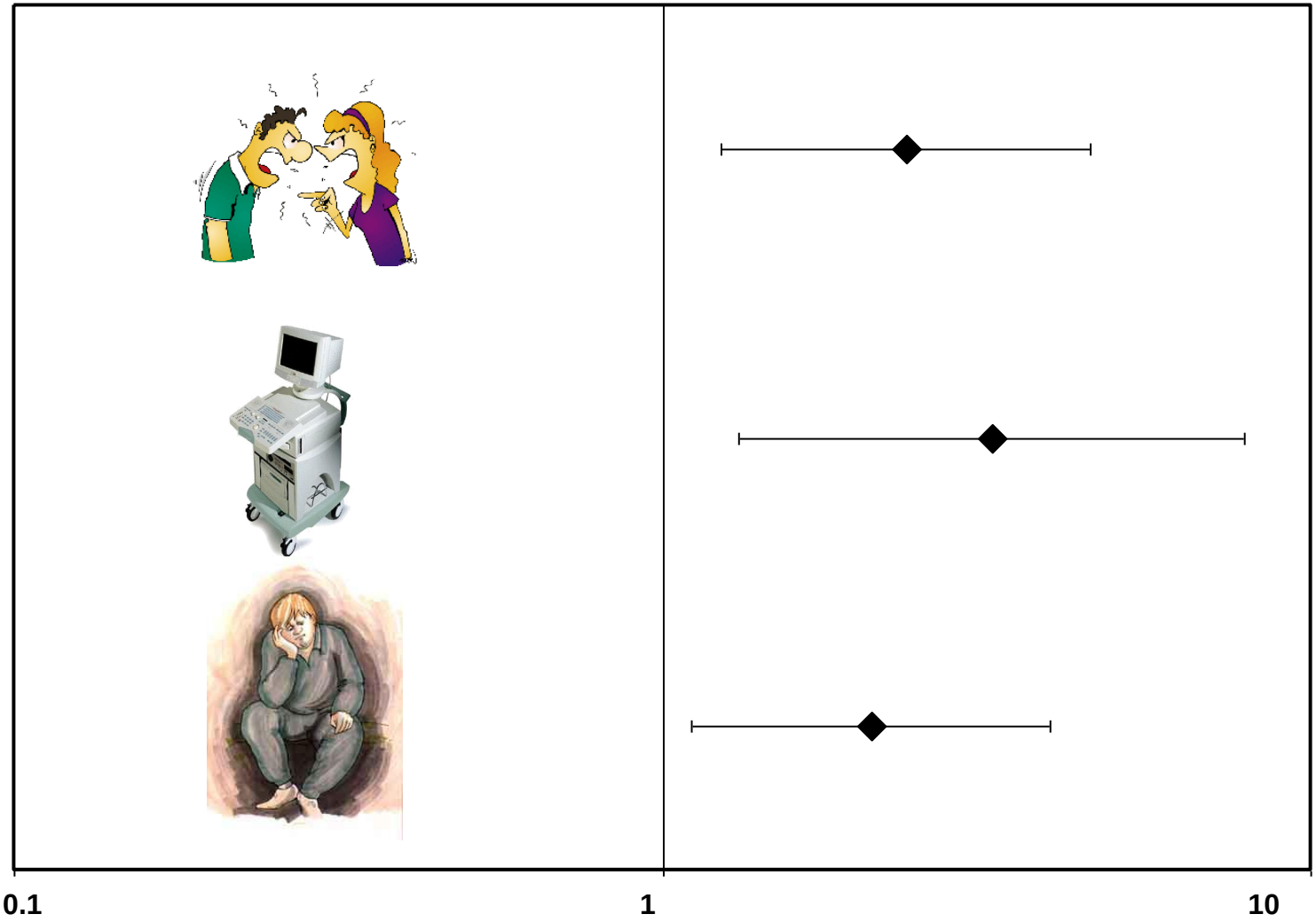
PSV < 25 cm/sec

➢ **Organic domain of ED**

MHQ-D score 5° quintile

➢ **Intra-psychic domain of ED**

Adjusted hazard ratio for MACE (Cox regression analysis) as a function of parner'd HSD, PSV at PCDU and MHQD in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



Adjusted for

- Age
- morbility index (# drugs)
- ΣMHQ

Relational, organic & intra-psychic ED determinants independently increases the risk of incident MACE

Erectile dysfunction

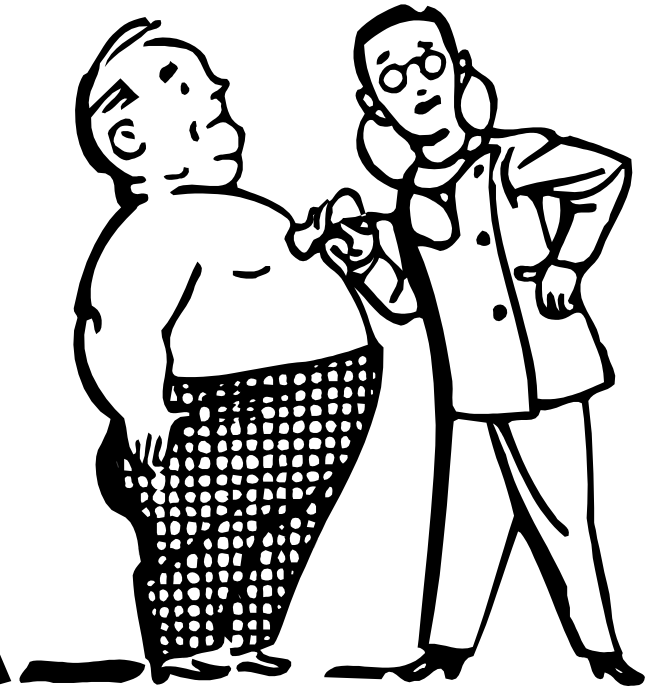
- **IIEF-15/IIEF-EFD/ IIEF-5 most frequently used self-reported questionnaires for ED**
- **Pathological SIEDY Scale 1 score predicts impaired penile blood flow and MACE**
- **Pathological SIEDY Scale 2 predicts impaired couple fitness and reduced partner love predicts MACE**
- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**

What can we say to Mario (54 ys old) and Rosina (51 ys old)?

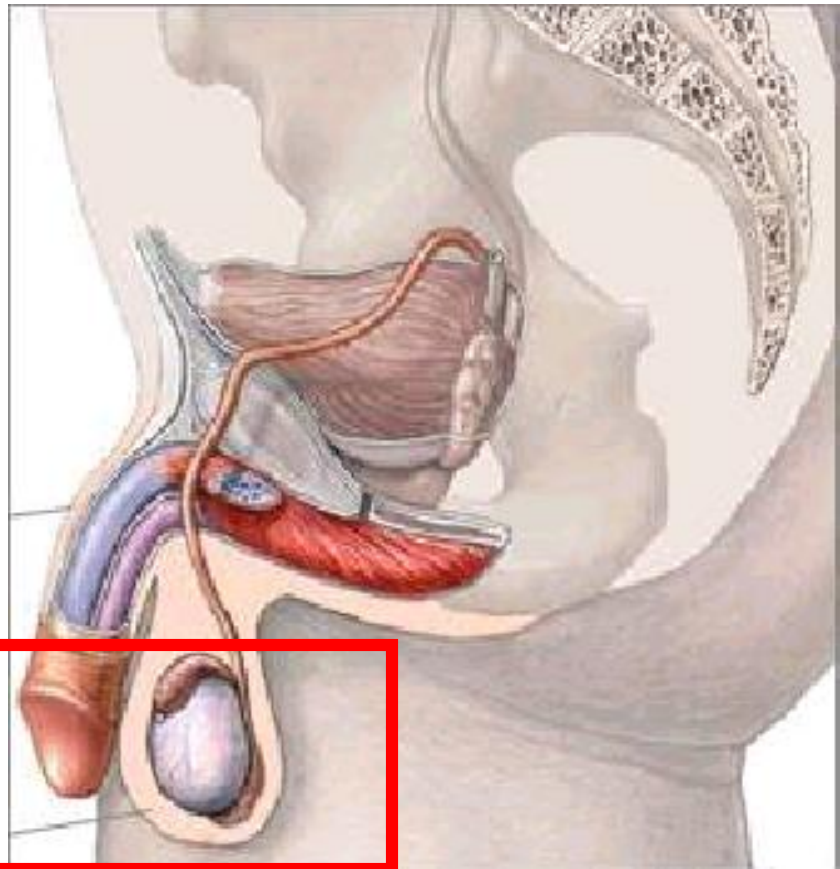
- **Pay attention Mario ED is a symptom of an underlying problem. Talk to your general physician or to an andrologist … Rosina please convince Mario to go to the doctor**
- **The lack of love represents an independent CV risk factor**
- **Mario, please listen to Rosina**
- **Your problem cause should be indentified within the couple carefully evaluating all risk factors**

Clinical examination

As complete as possible!

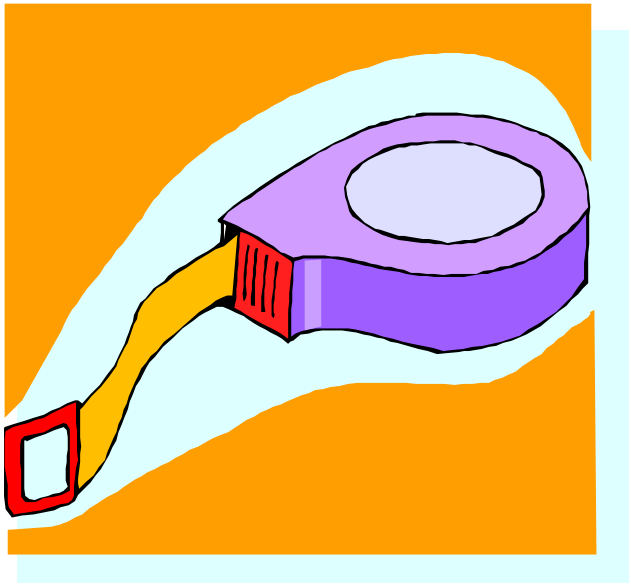


Androlological examination

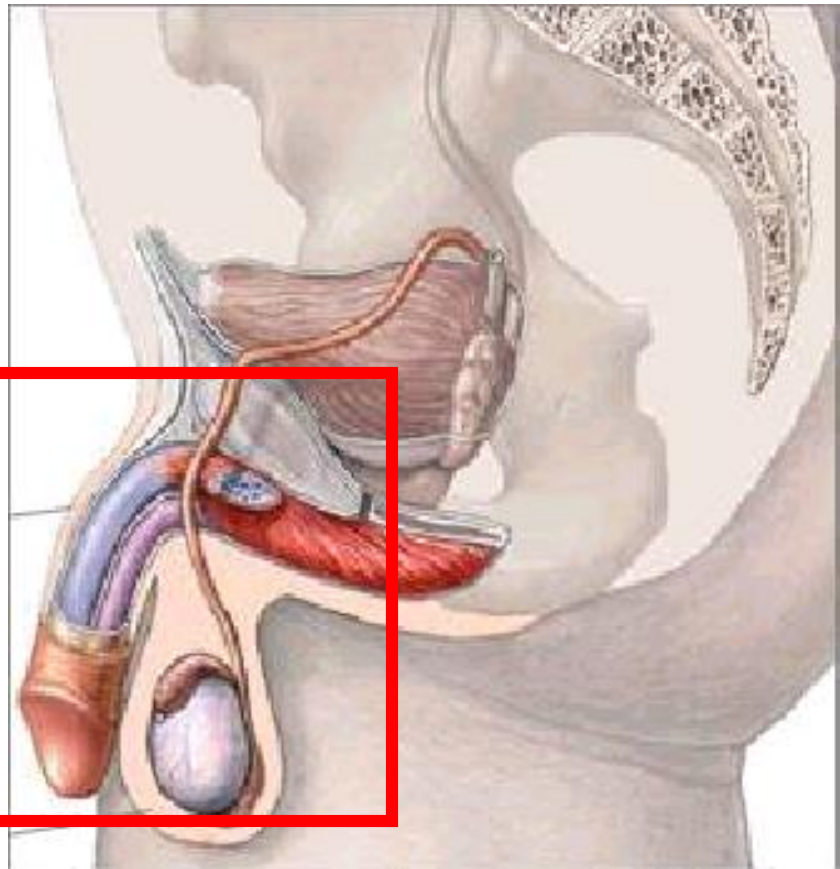


Testis

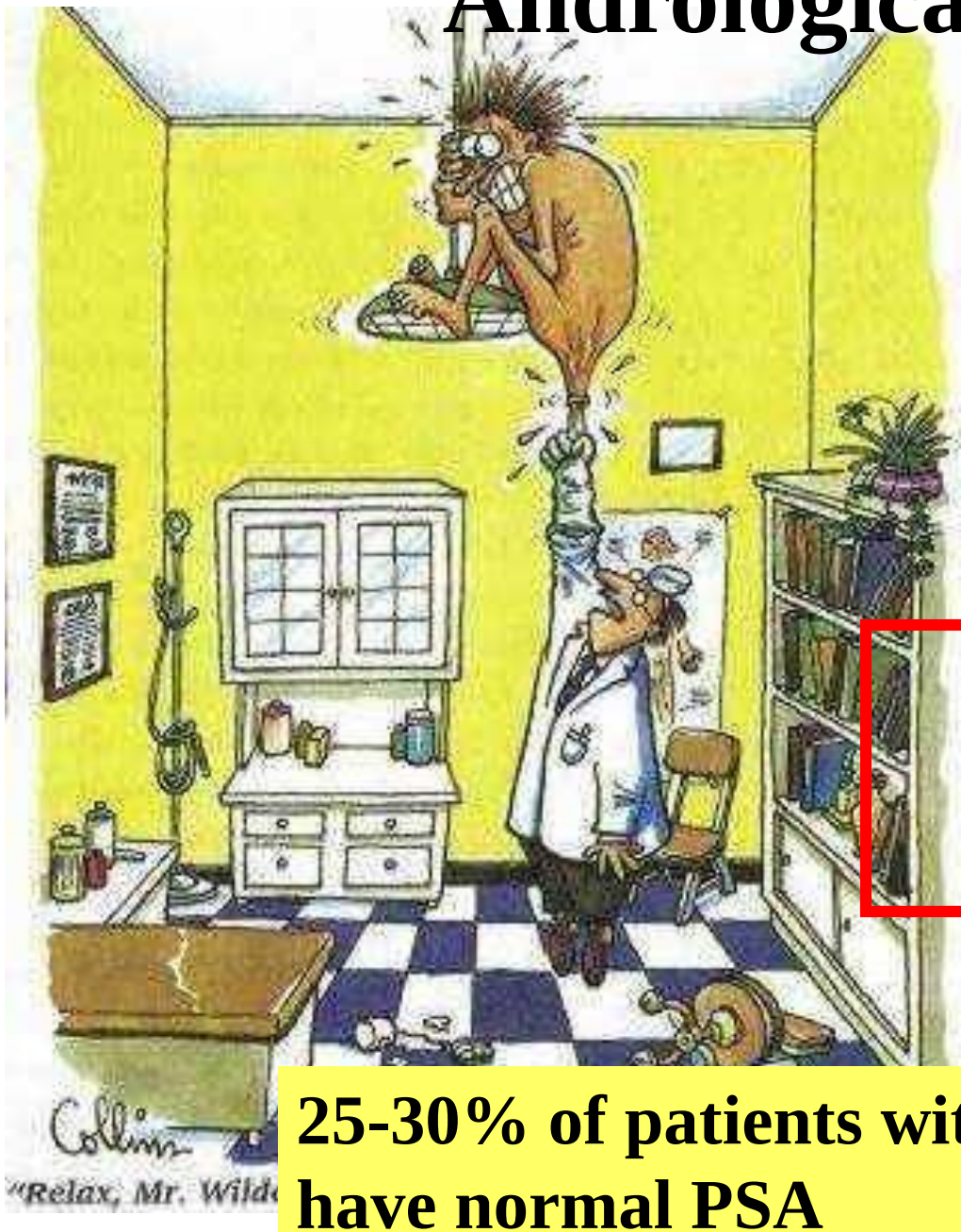
Andrological examination

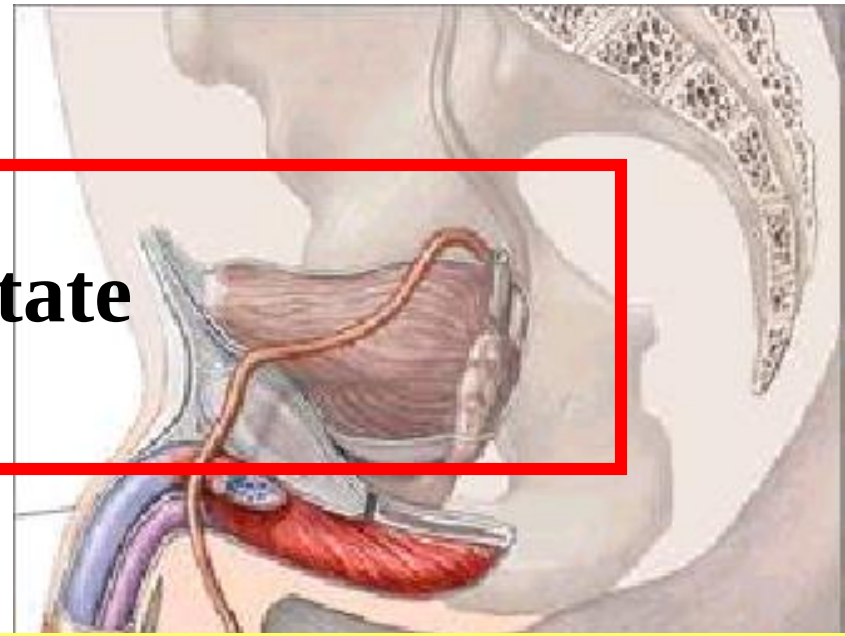


Penis



Andrological examination





Prostate

25-30% of patients with locally confined prostate cancer have normal PSA

Erectile dysfunction

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- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**
- **Clinical and andrological evaluation as complete as possible**

EAU Guidelines on

Erectile Dysfunction, Premature Ejaculation, Penile Curvature and Priapism

http://uroweb.org/guideline/male-sexual-dysfunction/.

K. Hatzimouratidis (Chair), F. Giuliano, I. Moncada,
A. Muneer, A. Salonia (Vice-chair), P. Verze

THE JOURNAL OF
SEXUAL MEDICINE

REVIEW

British Society for Sexual Medicine Guidelines on the Management of Erectile Dysfunction in Men—2017

Check for updates

Geoff Hackett, MD,[1] Mike Kirby, MD,[2] Kevan Wylie, MD,[3] Adrian Heald, MD,[4] Nick Ossei-Gerning, MD,[5]
David Edwards, MD,[6] and Asif Muneer, MD, FRCS(Urol)[7]

Hackett et al., J Sex Med. 2018; 15:430

International Journal of Impotence Research (2003) 15, 210–220
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0955-9930/03 $25.00
www.nature.com/ijir

Structured interview on erectile dysfunction (SIEDY©): a new, multidimensional instrument for quantification of pathogenetic issues on erectile dysfunction

L Petrone[1], E Mannucci[2], G Corona[1], M Bartolini[3], G Forti[1], R Giommi[4] and M Maggi[1]*

[1]*Andrology Unit,* [2]*Endocrinology Unit,* [3]*Radiology Units; and* [4]*Department of Clinical Physiopathology, University of Florence and International Institute of Sexuology, Florence, Italy*

- **Scale 1 = organic component**
- ***Diabetes/hypertension/dyslipidemia***
- **Neurological diseases**
- ***Reduced nocturnal erection or ejaculate volume***

Biochemical evaluation of ED: Summary

	Fasting glucose	Lipid profile	Total testosterone	SHBG	cFree T
EAU	+	+	+	+	+
BSSM	+	+	+	+	+

Erectile dysfunction

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- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**
- **Clinical and andrological evaluation as complete as possible**
- **First line biochemical evaluation: fasting glucose, lipid profile and total testosterone**

Instrumental evaluation of ED: Summary

	Penile doppler ultrasound	NPT
EAU	**Rare cases**	**Rare Cases**
BSSM	**Rare cases**	**Rare Cases**

Erectile dysfunction

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- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**
- **Clinical and andrological evaluation as complete as possible**
- **First line biochemical evaluation: fasting glucose, lipid profile and total testosterone**
- **Instrumental test are suggested only in rare cases**

Primary ED (not caused by organic disease or psychogenic disorder).
Young patients with a history of pelvic or perineal trauma, who could benefit from potentially curative vascular surgery.
Patients with penile deformities which might require surgical correction (e.g., Peyronie's disease, congenital curvature).
Patients with complex psychiatric or psychosexual disorders.
Patients with complex endocrine disorders.
Specific tests may be indicated at the request of the patient or his partner.
Medico-legal reasons (e.g., implantation of penile prosthesis to document end stage ED, sexual abuse).

http://uroweb.org/guideline/male-sexual-dysfunction/.

Standardization of Vascular Assessment of Erectile Dysfunction

Standard Operating Procedures for Duplex Ultrasound

Suresh C. Sikka, PhD, HCLD,* Wayne J.G. Hellstrom, MD, FACS,* Gerald Brock, MD, FRCSC,† and Antonio Martin Morales, MD‡

*Tulane University Health Sciences Center, New Orleans, LA, USA; †University of Western Ontario, London, ON, Canada; ‡Carlos Haya University Hospital, Malaga, Spain

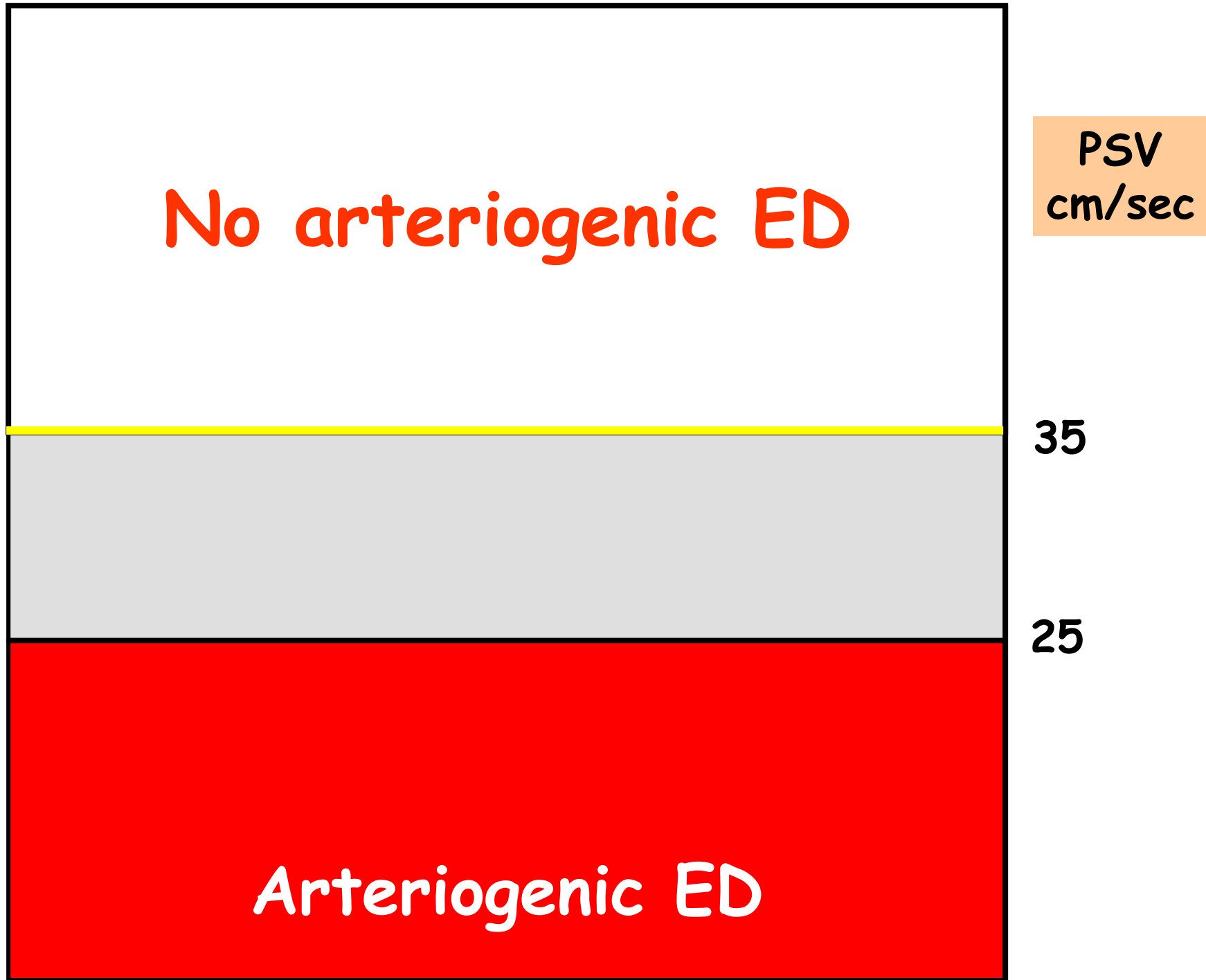
DOI: 10.1111/j.1743-6109.2012.02825.x

- **Although recent studies claim a good predictive value of PSV measurement in this flaccid state, the universal consensus is to perform the study under pharmacologically induced erection**

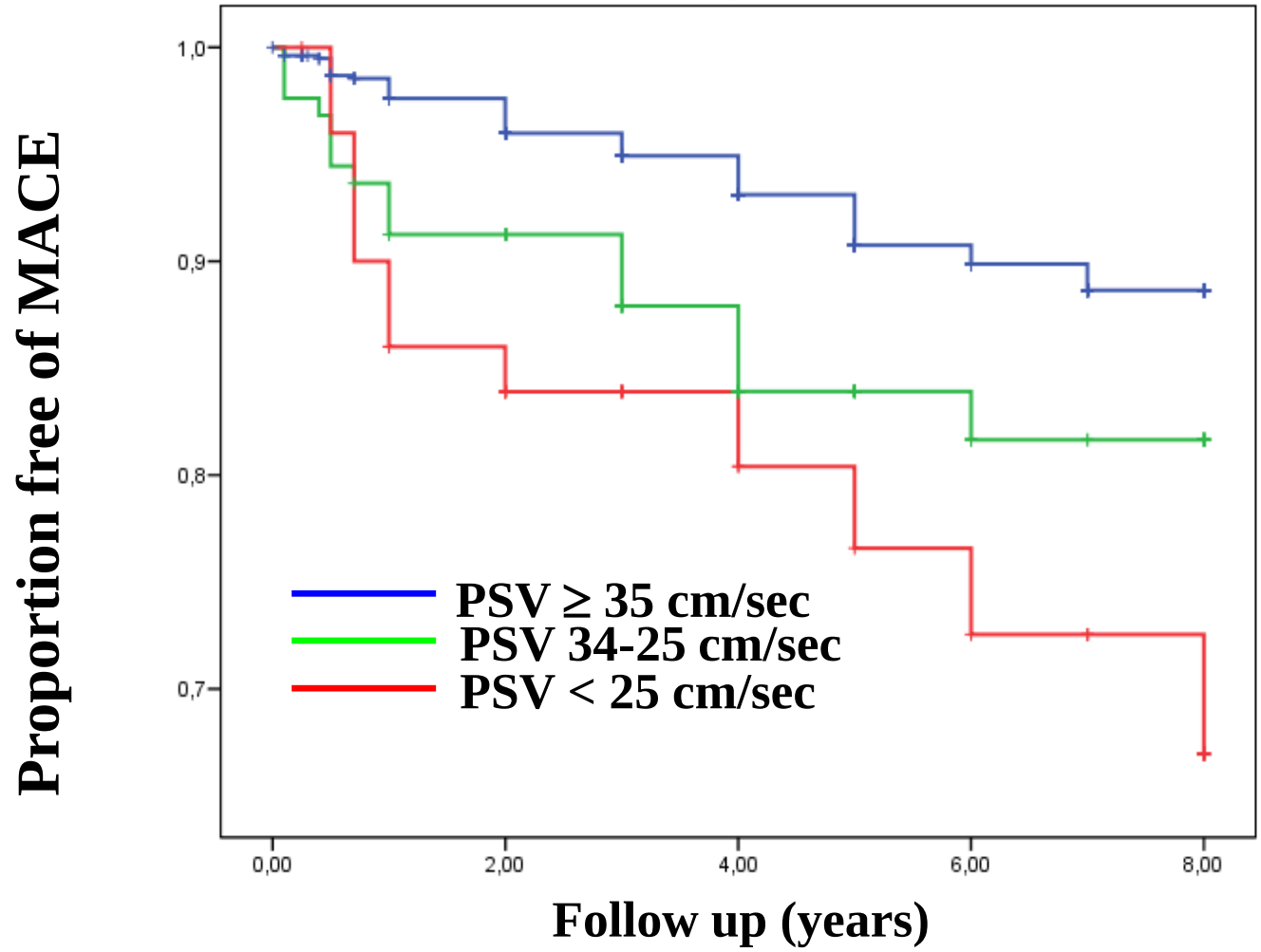
- **With regard to the drug for pharmacological induced erections, ICI with 10 mg PGE1 has been considered as a reasonable initial injection dose to be used but there is no consensus**

- **Redosing with trimix (alprostadil 10 mg + phentolamine 1 mg + papaverine 30 mg) has been suggested in confirming arterial insufficiency**

Sikka et al., J Sex Med 2013:10:120


No arteriogenic ED
PSV
cm/sec
35
25
Arteriogenic ED

Proportion free of MACE (Kalplan-Meier curves) as a function of baseline dynamic PDU (PGE1 10 μg) in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



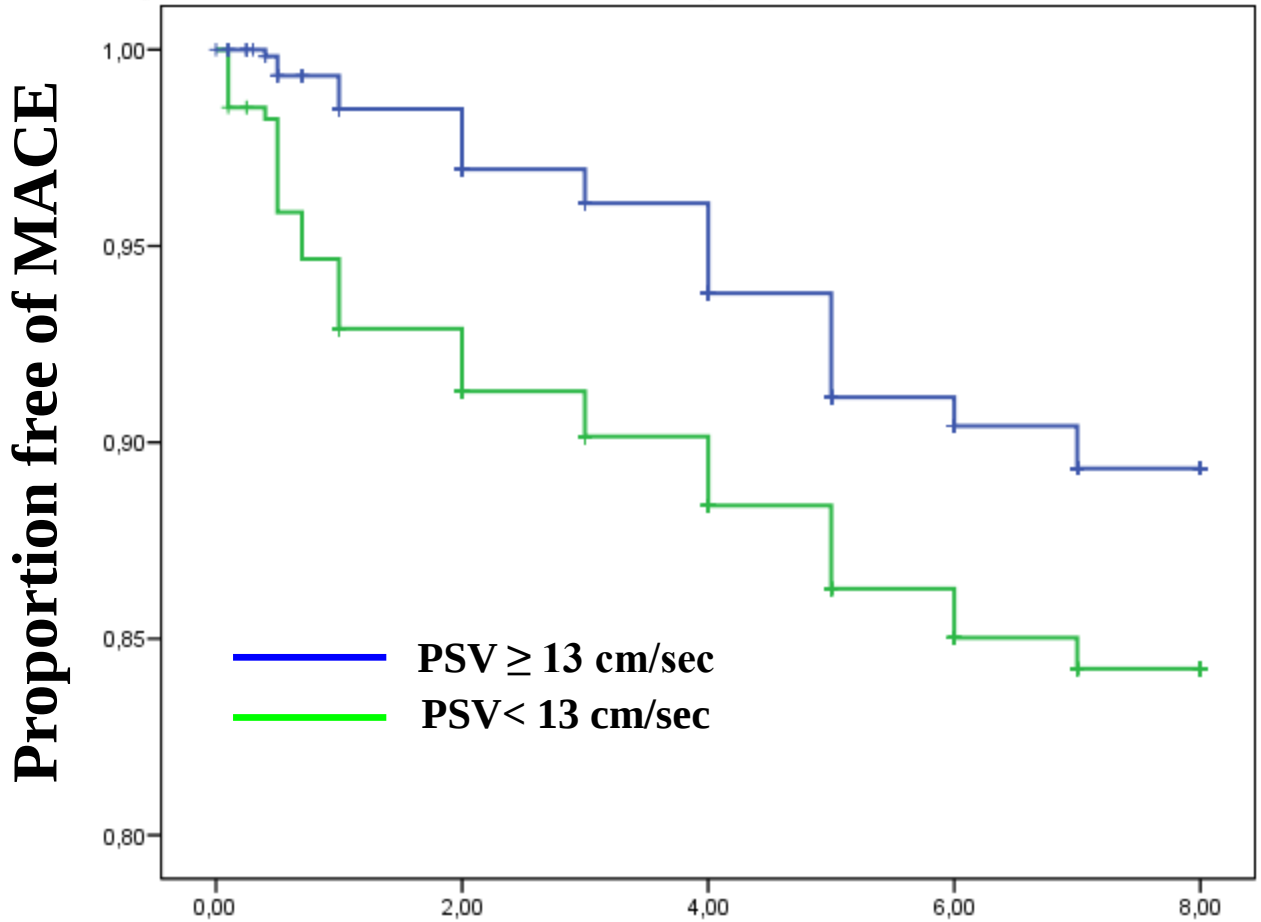
p<0.01 vs. ≥ 35 cm/sec

p<0.0001 vs. ≥ 35 cm/sec

Corona et al., J. Sex. Med.2010; 7:1918

Having a dynamic PSV < 25 cm/sec is associated with an increased risk of MACE (Cox regression HR=2.67 [1.42-5.04])

Proportion free of MACE (Kalplan-Meier curves) as a function of baseline flaccid PSV at PCDU in a consecutive series of 1687 ED subjects at the University of Florence, Florence, Italy



p<0.0001 vs. ≥ 13 cm/sec

Adjusted for

- Age
- Morbidity index (# drugs)

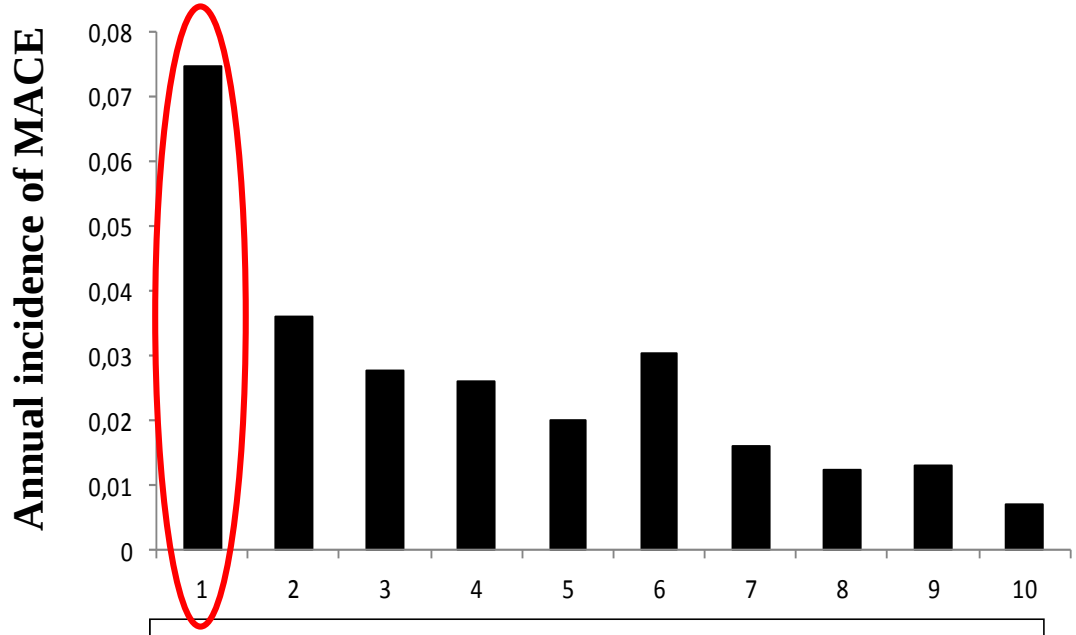
Having flaccid PSV < 13 cm/sec is associated with an increased risk of MACE (Cox regression HR=1.69 [1.00-2.86])

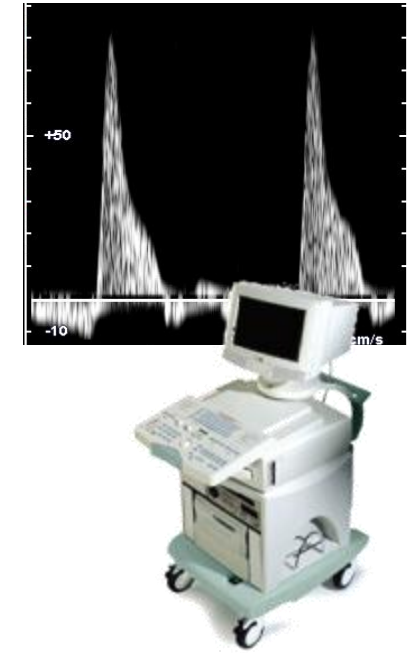
Flaccid Penile Acceleration as a Marker of Cardiovascular Risk in Men without Classical Risk Factors

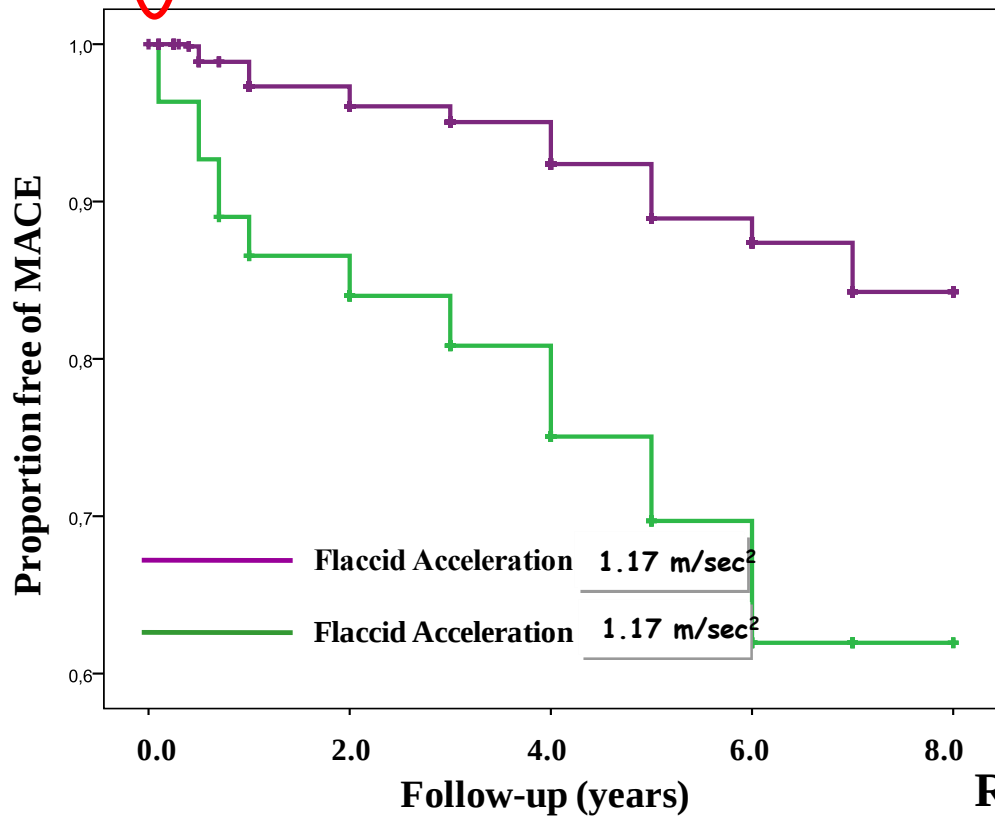
Giulia Rastrelli, MD, PhD,* Giovanni Corona, MD, PhD,*† Francesco Lotti, MD,* Antonio Aversa, MD, PhD,‡ Marco Bartolini, MD,§ Mario Mancini, MD,¶ Edoardo Mannucci, MD,** and Mario Maggi, MD*

*Sexual Medicine and Andrology Unit, Department of Experimental and Clinical Biomedical Sciences, University of Florence, Florence, Italy; †Endocrinology Section, Maggiore Hospital, Bologna, Italy; ‡Department of Experimental Medicine, University of Rome "La Sapienza", Rome, Italy; §Diagnostic Imaging Department, Azienda Ospedaliera Univarsitaria Careggi, Florence, Italy; ¶Urology Unit, San Paolo Hospital, Milan, Italy; **Diabetes Section Geriatric Unit, Department of Critical Care, University of Florence, Florence, Italy

DOI: 10.1111/jsm.12342

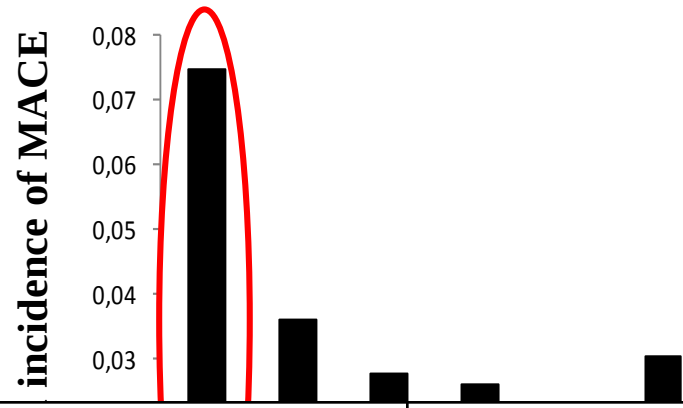


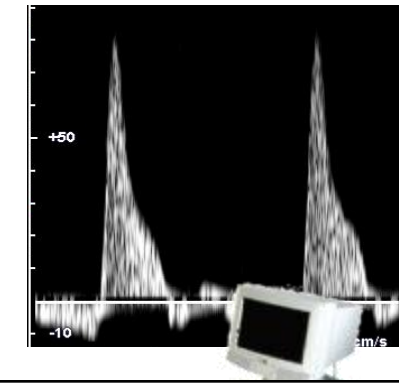




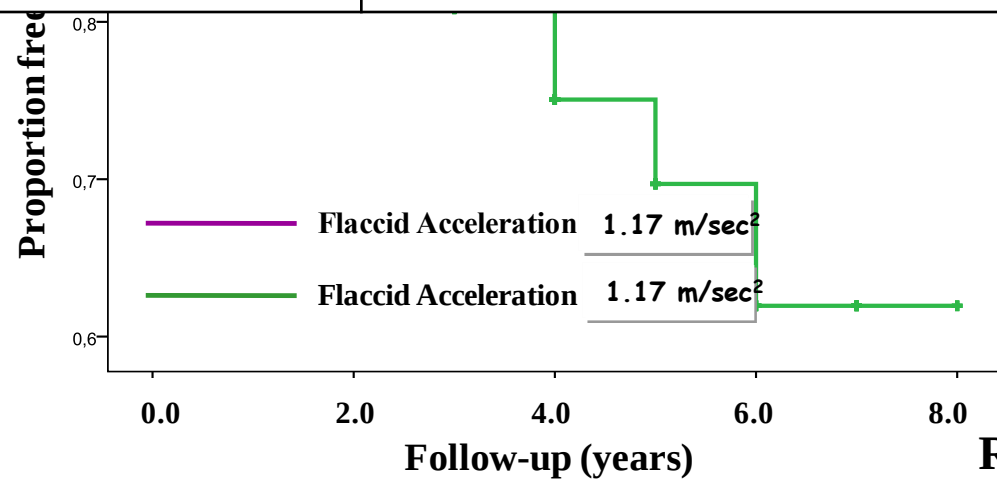
p<0.0001
vs. Flaccid Acceleration ≥ 1.17 m/sec²

Rastrelli et al., J Sex Med 2014;11:173





	NO	YES
Hypertension	2.791 [1.382-5.634]; p=0.004	NS
Diabetes	3.297 [1.617-6.722]; p=0.001	NS
Body Mass Index ≥35 kg/m²	2.445 [1.296-4.615]; p=0.006	NS
Age ≥55 years	3.094 [1.000-9.756]; p=0.05	NS



Adjusted for: Age, BMI, Lifestyle, CDS, D-PSV<25 cm/s

p<0.0001
vs. Flaccid Acceleration ≥ 1.17 m/sec²

Rastrelli et al., J Sex Med 2014;11:173

Erectile dysfunction

- **IIEF-15/IIEF-EFD/ IIEF-5 most frequently used self-reported questionnaires for ED**
- **Pathological SIEDY Scale 1 score predicts impaired penile blood flow and MACE**
- **Pathological SIEDY Scale 2 predicts impaired couple fitness and reduced partner love predicts MACE**
- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**
- **Clinical and andrological evaluation as complete as possible**
- **First line biochemical evaluation: fasting glucose, lipid profile and total testosterone**
- **Flaccid PSV < 13 cm/sec and flaccid acceleration < 1.17 m/sec2 predict CV events**

Outline

- Erectile dysfunction
- **Premature ejaculation**

Standard Operating Procedures in the Disorders of Orgasm and Ejaculation

Chris G. McMahon, MBBS, FAChSHM,* Emmanuele Jannini, MD,† Marcel Waldinger, MD, PhD,‡ and David Rowland, PhD§

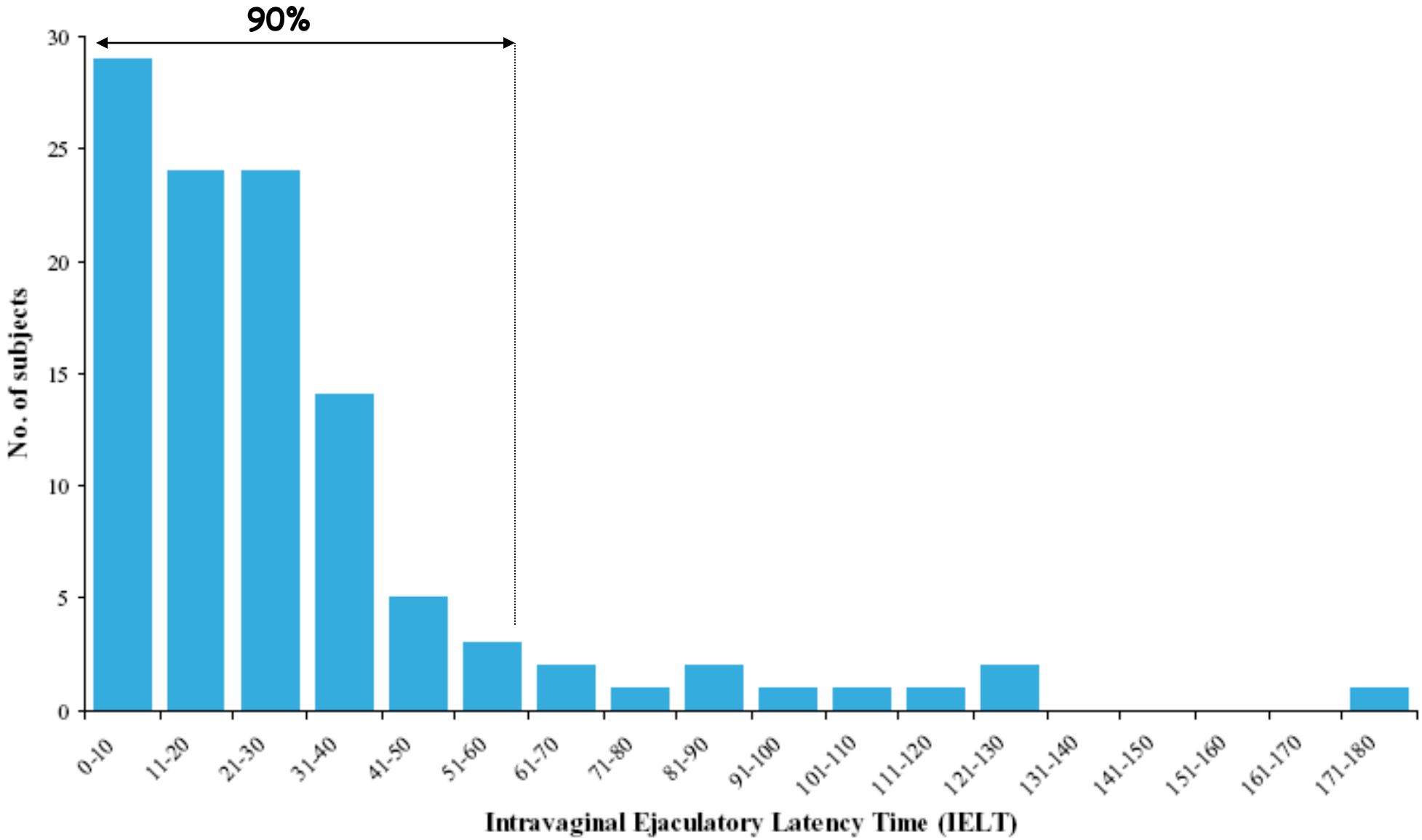
*Australian Centre for Sexual Health, Sydney, Australia; †University of L'Aquila, Endocrinology and Medical Sexology, Experimental Medicine, L'Aquila, Italy; ‡Leyenburg Hospital, Psychiatry and Neurosexology, The Hague, The Netherlands; §Valparaiso University, Psychology, Valparaiso, IN, USA

DOI: 10.1111/j.1743-6109.2012.02824.x

". . . ejaculation which always or nearly always occurs prior to or within about one minute of vaginal penetration, the inability to delay ejaculation on all or nearly all vaginal penetrations, and the presence of negative personal consequences, such as distress, bother, frustration and/or the avoidance of sexual intimacy"

McMahon et al., J Sex Med. 2013;10:204.

Intravaginal ejaculation latency time measured with stopwatch in 110 men with lifelong premature ejaculation



Waldinger et al., Int J Psychiatry Clin Pract 1998;2:287

An Evidence-Based Unified Definition of Lifelong and Acquired Premature Ejaculation: Report of the Second International Society for Sexual Medicine Ad Hoc Committee for the Definition of Premature Ejaculation

Ege Can Serefoglu, MD,* Chris G. McMahon, MD,† Marcel D. Waldinger, MD, PhD,‡ Stanley E. Althof, PhD,§ Alan Shindel, MD,¶ Ganesh Adaikan, PhD,** Edgardo F. Becher, MD,†† John Dean, MD,‡‡ Francois Giuliano, MD, PhD,§§ Wayne J.G. Hellstrom, MD,¶¶ Annamaria Giraldi, MD, PhD,*** Sidney Glina, MD, PhD,††† Luca Incrocci, MD, PhD,‡‡‡ Emmanuele Jannini, MD,§§§ Marita McCabe, PhD,¶¶¶ Sharon Parish, MD,**** David Rowland, PhD,†††† R. Taylor Segraves, MD, PhD,‡‡‡‡ Ira Sharlip, MD,§§§§ and Luiz Otavio Torres, MD¶¶¶¶

1. **Ejaculation that always or nearly always occurs prior to or within about 1 minute of vaginal penetration (lifelong PE) or a clinically significant and bothersome reduction in latency time, often to about 3 minutes or less (acquired PE).**

2. **The inability to delay ejaculation on all or nearly all vaginal penetrations.**

3. **Negative personal consequences, such as distress, bother, frustration, and/or the avoidance of sexual intimacy.**

Serefoglu et al., J Sex Med. 2014;11:1423

Premature ejaculation

- **IELT best method for PE evaluation in clinical trials**

Male sexual inventories

- Self-report questionnaires on sexual function
- Self-report questionnaires on quality of life in ED patients
- Self-report questionnaires on satisfaction with ED treatments
- Structured interviews on ED
- **Self-report questionnaires on premature ejaculation**

EUROPEAN UROLOGY 52 (2007) 565–573

available at www.sciencedirect.com
journal homepage: www.europeanurology.com

European Association of Urology

Sexual Medicine

Development and Validation of a Premature Ejaculation Diagnostic Tool

Tara Symonds [a,*], *Michael A. Perelman* [b], *Stanley Althof* [c], *François Giuliano* [d], *Mona Martin* [e], *Kathryn May* [a], *Lucy Abraham* [a], *Anna Crossland* [a], *Mark Morris* [a]

PEDT

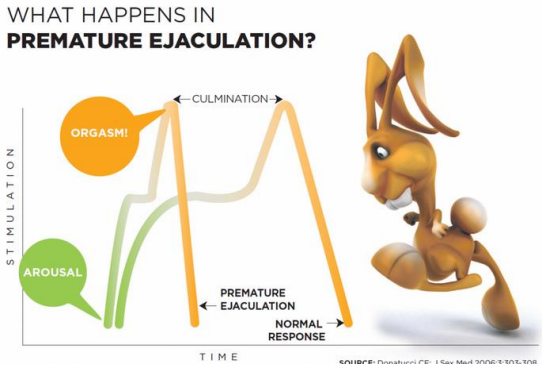
5 items:

Difficulty in delaying ejaculation

Ejaculation before patient need

Frustration related to PE

Ejaculation after minimal stimulation

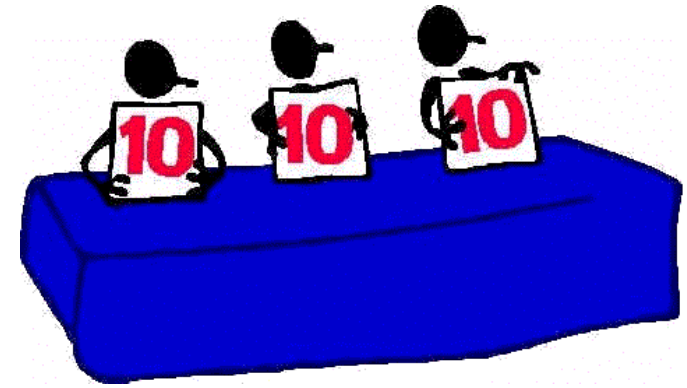


Leave partner sexually unfulfilled

Rosen et al., Eur Urol. 2007;52:565

PEDT

Score



≤ 8 no PE

9-10 probable PE

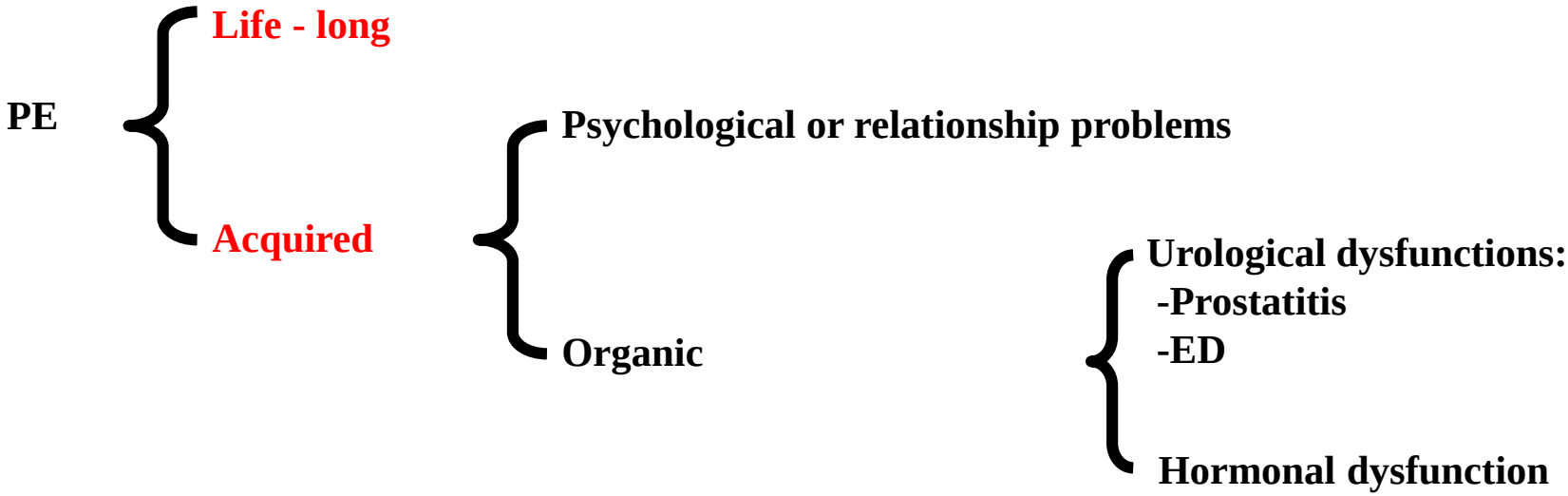
≥ 11 PE

Rosen et al., Eur Urol. 2007;52:565

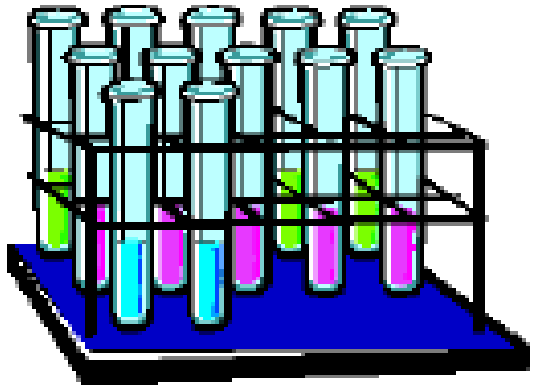
Premature ejaculation

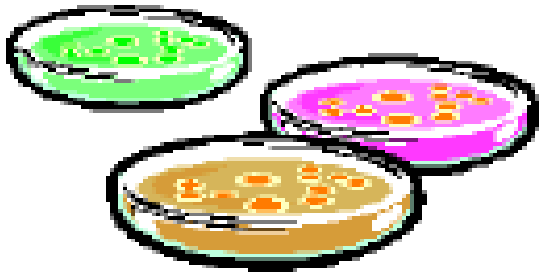
- **IELT best method for PE evaluation in clinical trials**
- **PEDT most frequently self reported questionnaire PE**

Aetiology

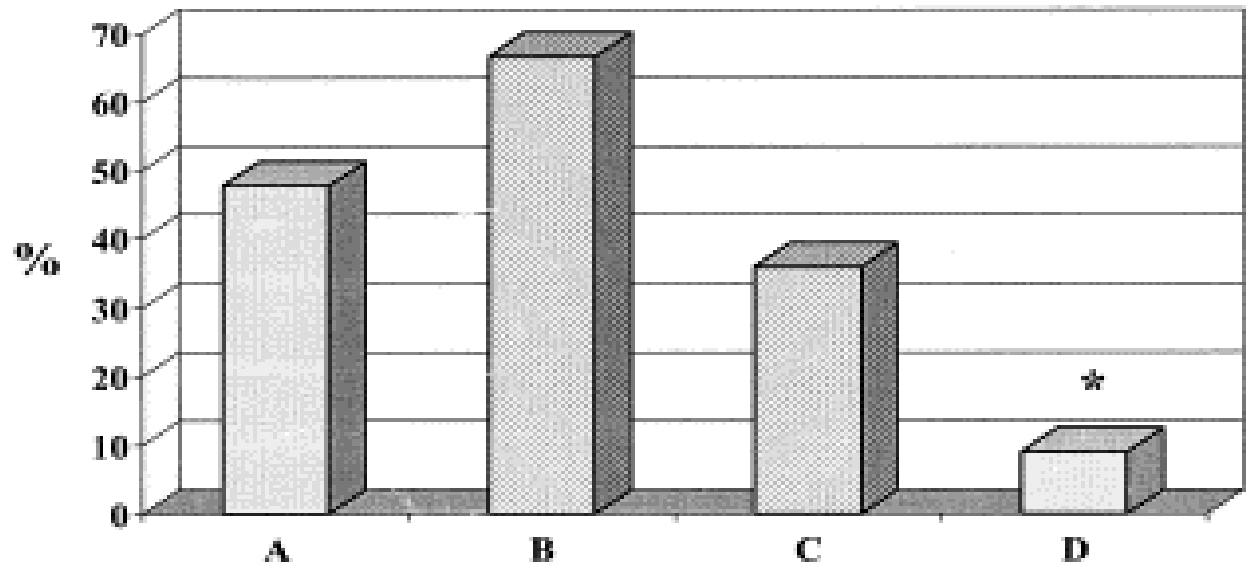


Serefoglu et al., J Sex Med. 2014;11:1423





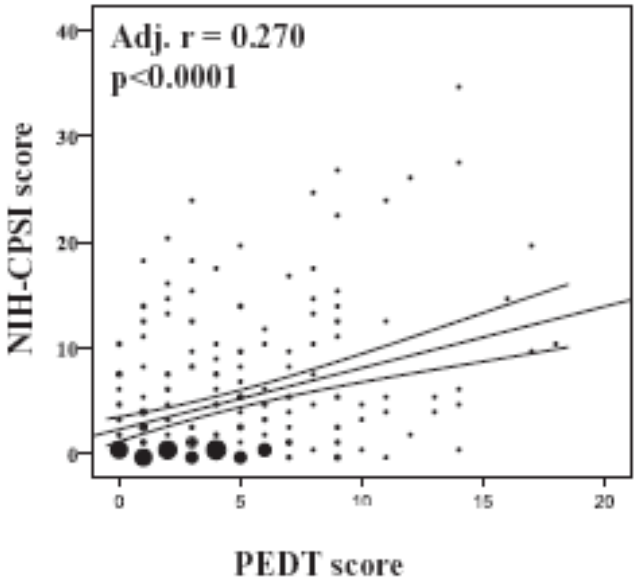
Prostatitis

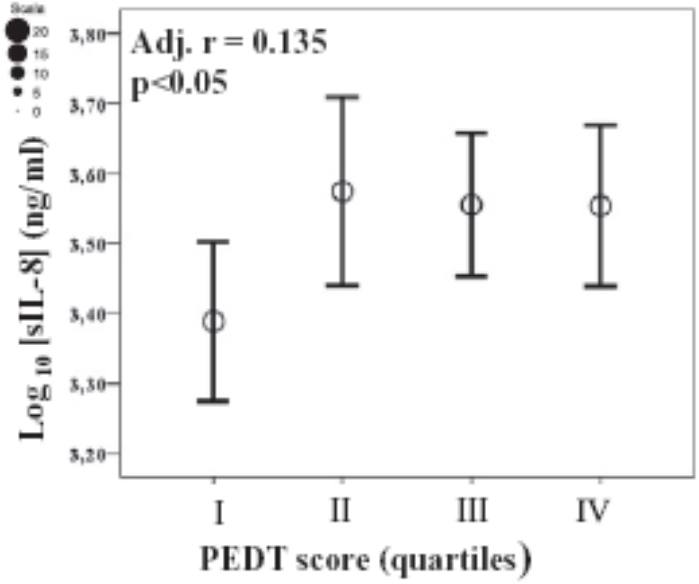


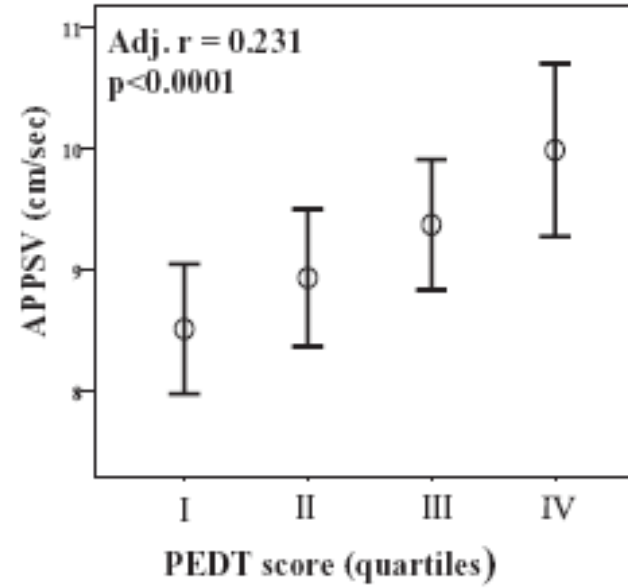
EP Totali n=46	EP Prim. n=21	EP Second. n=25	Controlli sani n=30

Screponi et al., Urology 2001;58:198

Consecutive series of 244 men (mean age 35.2 ± 7.8) with couple infertility





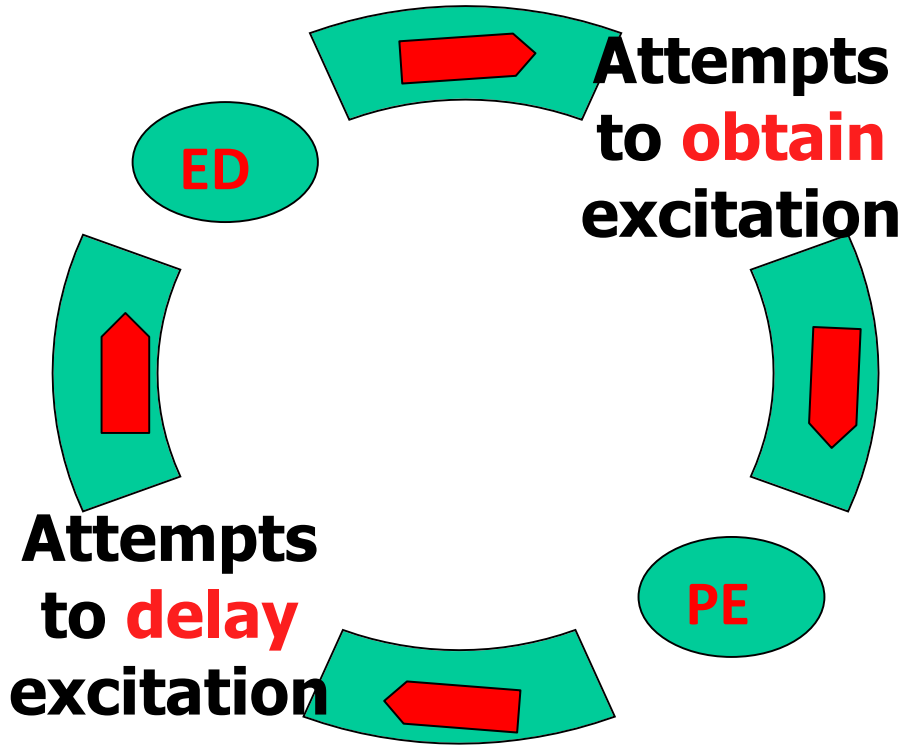


Lotti et al., J Sex Med. 2012;9:2698.

Correlation between ejaculatory and erectile dysfunction

E. A. JANNINI,* F. LOMBARDO† and A. LENZI†

international journal of andrology, 28 (Suppl. 2): 40–45 (2005)



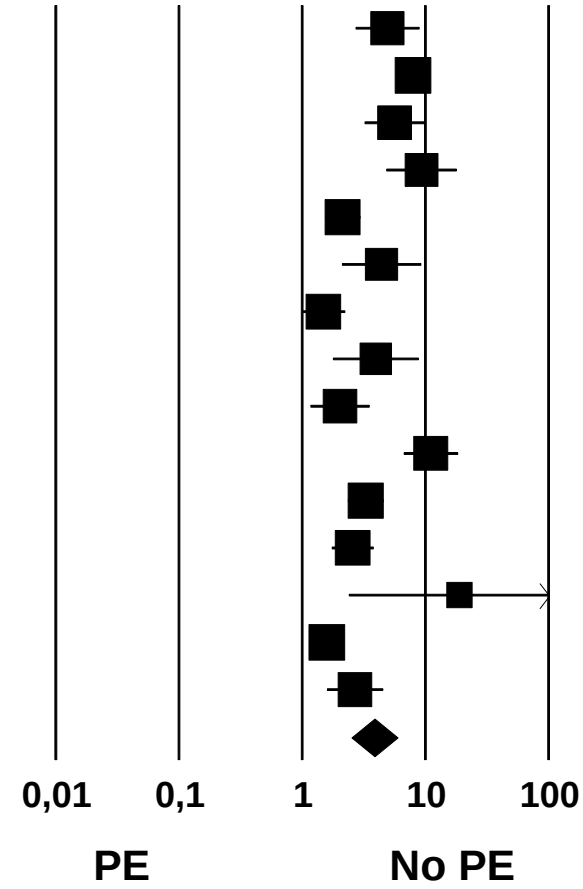
Possible relationship between ED and PE

Risk of ED in subjects with or without PE

Study name	Odds ratio	Lower limit	Upper limit	p-Value
El-Sakka et al., 2003	4,919	2,677	9,040	0,000
Basile_fasolo et al., 2005	7,933	6,987	9,008	0,000
Laumann et al., 2005	5,621	3,174	9,955	0,000
Porst et al., 2006	9,303	4,764	18,165	0,000
El-Sakka et al., 2008	2,132	1,519	2,994	0,000
Malavige et al., 2008	4,410	2,076	9,370	0,000
Son et al., 2010	1,491	0,984	2,258	0,059
Vakalopoulus et al., 2011	3,963	1,756	8,943	0,001
Wei et al., 2011	2,026	1,153	3,559	0,014
Lee et al., 2012	11,063	6,590	18,573	0,000
McMahon et al., 2012	3,280	2,322	4,634	0,000
Shaeer et al., 2012	2,573	1,721	3,848	0,000
Shaeer et al., 2013	18,940	2,367	151,550	0,006
Gao et al., 2013	1,586	1,289	1,951	0,000
Corona et al., 2014.	2,686	1,573	4,585	0,000
Overall	3,826	2,488	5,885	0,000

Statistics for each study

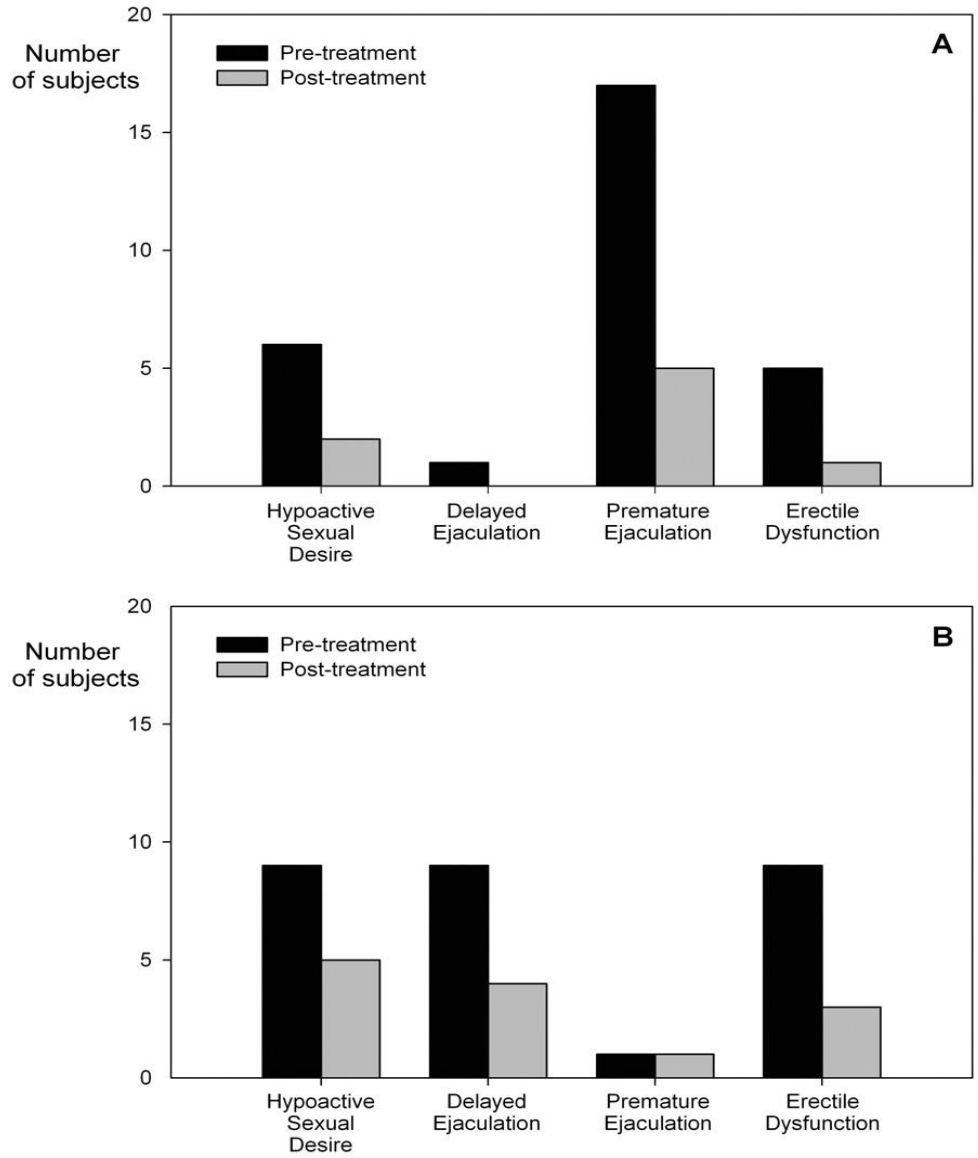
Odds ratio and 95% CI



Meta Analysis

Corona et al., J Sex Med. 2015;12:2291

Prevalence of sexual dysfunction before and after recovery from hyperthyroidism (A) and hypothyroidism (B)



Carani et al., J Clin Endocrinol and Metab 2005;90:6472

Premature ejaculation

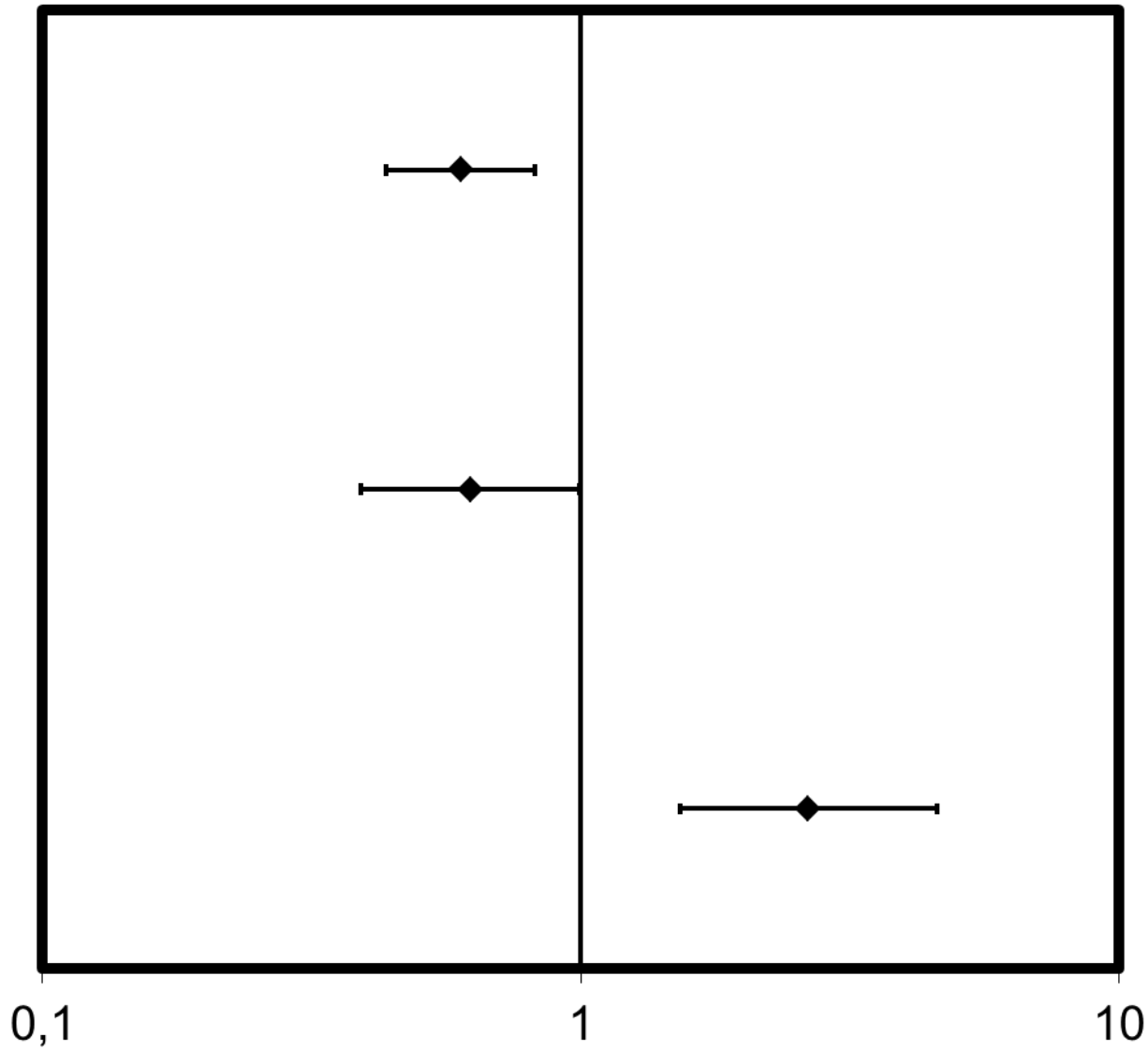
- **IELT best method for PE evaluation in clinical trials**
- **PEDT most frequently self reported questionnaire PE**
- **Prostatitis, ED and hyperthyroidism possible causes of acquired PE**

Hazard ratio for premature ejaculation according to the hormonal milieu in 1962 subjects with sexual dysfunction (w/o hyperprolactinemia and medication) at the University of Florence, Italy

Log_{10} [TSH] mU/L

Log_{10} [PRL] mU/L

Log_{10} [Total testosterone] nM



Adjusted for:

- Age
- Smooking and drinking behaviours
- ED severity
- Anxiety and depressive symptoms
- Psychiatric disease

Corona et al., Nat Rev Urol. 2012;9:508

CONCLUSIONS

- **Organic, relational and intraspychic factors mutually interact in the pathogenesis of ED and its associated CV risk**

- **Prostatitis, hyperthyroidism and ED should be ruled out in PE subjects**

Acknowledgements

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