

Tests, treatments and procedures at risk of inappropriateness in Italy
that Physicians and Patients should talk about.

Five Recommendations from the Italian Society of Andrology and Sexuality Medicine (SIAMS)

1	<p>Do not measure serum free testosterone in the suspicion of male hypogonadism.</p> <p>Available immunoassays seem to underestimate testosterone levels and, they are not reliable for free testosterone measurement. The mass spectrometry and equilibrium dialysis are more accurate methodologies. However, they are laboriously, relatively expensive, time-consuming and available only in few laboratories. In symptomatic men with normal total testosterone or in those in whom is suspected a sex hormone-binding globulin (SHBG) abnormality, leading to an over- or underestimation of total testosterone, free-testosterone may be calculated through specific algorithms (e.g. Vermeulen equation) based on the measurement of total testosterone, SHBG and serum albumin.</p>
2	<p>Do not prescribe nutraceuticals in all male patients with sperm abnormalities.</p> <p>Antioxidants and/or nutraceuticals are widely used in andrological clinical practice, as an empirical treatment for male infertility. There is no evidence of efficacy to treat infertility related to other disorders, whereas weak evidence of efficacy in the treatment of idiopathic male infertility has been provided. The supplementation with antioxidants and/or nutraceuticals must be proposed only to men with idiopathic infertility. There is no evidence that a specific antioxidant and/or nutraceutical is better than others. The optimal dosage for each single antioxidant and/or nutraceutical is not completely clear.</p>
3	<p>Do not prescribe phosphodiesterase-5 inhibitors (PDE5i) in men with erectile dysfunction (ED) without an adequate diagnostic work-up.</p> <p>Prescribing PDE5i without performing an appropriate diagnostic work-up to detect the ED-associated morbidities represents a missed opportunity. In fact, in ED patients the stratification of cardiovascular risk is simple, non-invasive and can reveal an asymptomatic condition, allowing a great opportunity for secondary prevention.</p> <p>Even in patients with psychogenic ED there is no indication to suggest PDE5i without performing a first-level diagnostic work-up: thus. In this setting, the inconstant PDE5i use can lead to a decreased confidence in the spontaneous capacity of erection and to a sort of pharmacological addiction, worsening performance anxiety and, eventually supporting the vicious circle at the basis of the disorder.</p>
4	<p>Do not perform genetic tests and assessment of sperm DNA fragmentation in all male patients with sperm abnormalities.</p> <p>Genetic testing in patients with impaired seminal parameters and history of couple infertility must be proposed in selected cases. A wide use of such tests represents an inappropriate clinical practice both from a clinical and an economic point of view. The analysis of karyotype and microdeletions of the Y chromosome are indicated in male patients with non-obstructive azoospermia or severe oligozoospermia (sperm concentration below 5-10 million/mL). The screening for mutations of cystic fibrosis gene (CFTR) should be restricted only to patients with congenital absence of the vas deferens. For patients with hypogonadotropic hypogonadism, the analysis of specific multi-gene panel (10-30 genes) is suggested. The search of mutations of androgen receptor gene, and DPY19L2 and AURKC genes should be considered only for selected patients.</p> <p>Available assays for evaluation of sperm DNA fragmentation are heterogeneous and differ each other for the type of damage they are able to detect, for the methodology, and for cut-offs, making them not comparable and not standardized. Data about the relationship between abnormal DNA integrity and reproductive outcomes are not strong enough to recommend the use of these tests in routine evaluation of infertile male.</p>
5	<p>Do not use phytoestrogens for menopausal-related sexual symptoms.</p> <p>There is no strong scientific evidence for the use of phytoestrogens in the treatment of menopausal-related sexual symptoms (e.g. hypoactive sexual desire disorder, excitement disorder, orgasmic disorder, dyspareunia, vaginismus) and/or hot flushes. Biological actions of these molecules can be affected by: multiple action sites, relative number of subtypes of receptors, different distribution among target tissues of functional co-activators and co-repressors, potential non-genomic action of estrogens even in cells without specific receptors. Phytoestrogens have the same general contraindications of on-label estrogen compounds.</p>

Please note that these items are provided only for information and are not intended as a substitute for consultation with a clinician. Patients with any specific questions about the items on this list or their individual situation should consult their clinician..

How this list was created

The Executive Council of the Italian Society of Andrology and Sexual Medicine (SIAMS), in collaboration with the Guidelines Committee of the same Society, has identified the 5 clinical practices at greater risk of inappropriateness from a first list of 20 proposals. Subsequently, the Guidelines Committee generated the text of recommendations, which have been debated by the President, the General Secretary and two delegates appointed by the Executive Council, one of whom is the Elected President.

The final version of these recommendations has been submitted to the Executive Council and finally approved on 23/10/2017.

Sources

1	<ol style="list-style-type: none"> 1. Isidori AM, Buvat J, Corona G, Goldstein I, Jannini EA, Lenzi A, Porst H, Salonia A, Traish AM, Maggi M. A critical analysis of the role of testosterone in erectile function: from pathophysiology to treatment-a systematic review. <i>Eur Urol</i>. 2014;65:99-112. 2. Isidori AM, Balercia G, Calogero AE, Corona G, Ferlin A, Francavilla S, Santi D, Maggi M. Outcomes of androgen replacement therapy in adult male hypogonadism: recommendations from the Italian society of endocrinology. <i>J Endocrinol Invest</i>. 2015;38:103-12. 3. Rosner W, Auchus RJ, Azziz R, Sluss PM, Raff H. Position statement: Utility, limitations, and pitfalls in measuring testosterone: an Endocrine Society position statement. <i>Clin Endocrinol Metab</i>. 2007; 92:405-13.
2	<ol style="list-style-type: none"> 1. Calogero AE, Condorelli RA, Russo GI, La Vignera S. Conservative Nonhormonal Options for the Treatment of Male Infertility: Antibiotics, Anti-Inflammatory Drugs, and Antioxidants. <i>Biomed Res Int</i>. 2017;2017:4650182. 2. Calogero AE, Aversa A, La Vignera S, Corona G, Ferlin A. The use of nutraceuticals in male sexual and reproductive disturbances: position statement from the Italian Society of Andrology and Sexual Medicine (SIAMS). <i>J Endocrinol Invest</i>. 2017;40:1389-1397. 3. Showell MG, Mackenzie-Proctor R, Brown J, Yazdani A, Stankiewicz MT, Hart RJ. Antioxidants for male subfertility. <i>Cochrane Database Syst Rev</i>. 2014;(12):CD007411.
3	<ol style="list-style-type: none"> 1. Corona G, Forti G, Maggi M. Why can patients with erectile dysfunction be considered lucky? The association with testosterone deficiency and metabolic syndrome. <i>Aging Male</i>. 2008;11:193-9. 2. Foresta C, Ferlin A, Lenzi A, Montorsi P and Italian Study Group on Cardiometabolic Andrology. The great opportunity of the andrological patient: cardiovascular and metabolic risk assessment and prevention. <i>Andrology</i> 2017; 5:408-413. 3. Nehra A, Jackson G, Miner M, Billups KL, Burnett AL, Buvat J, Carson CC, Cunningham GR, Ganz P, Goldstein I, Guay AT, Hackett G, Kloner RA, Kostis J, Montorsi P, Ramsey M, Rosen R, Sadovsky R, Seftel AD, Shabsigh R, Vlachopoulos C, Wu FC. The Princeton III Consensus recommendations for the management of erectile dysfunction and cardiovascular disease. <i>Mayo Clin Proc</i> 2012; 87:766-78.
4	<ol style="list-style-type: none"> 1. Ferlin A. Sperm DNA fragmentation testing as a diagnostic and prognostic parameter of couple infertility. <i>Transl Androl Urol</i>. 2017 Sep;6(Suppl 4):S618-S620. 2. Jungwirth A, Giwercman A, Tournaye H, Diemer T, Kopa Z, Dohle G, Krausz C; European Association of Urology Working Group on Male Infertility. European Association of Urology guidelines on Male Infertility: the 2012 update. <i>Eur Urol</i>. 2012;62:324-32. 3. Krausz C, Hoefsloot L, Simoni M, Tüttelmann F; European Academy of Andrology; European Molecular Genetics Quality Network. EAA/EMQN best practice guidelines for molecular diagnosis of Y-chromosomal microdeletions: state-of-the-art 2013. <i>Andrology</i> 2014; 2: 5-19.
5	<ol style="list-style-type: none"> 1. Worsley R, Santoro N, Miller KK, Parish SJ, Davis SR. Hormones and Female Sexual Dysfunction: Beyond Estrogens and Androgens--Findings from the Fourth International Consultation on Sexual Medicine. <i>J Sex Med</i>. 2016;13:283-90 2. Stuenkel CA, Davis SR, Gompel A, Lumsden MA, Murad MH, Pinkerton JV, Santen RJ. Treatment of Symptoms of the Menopause: An Endocrine Society Clinical Practice Guideline. <i>J Clin Endocrinol Metab</i>. 2015;100:3975-4011. 3. Wierman ME, Ait W, Basson R, Davis SR, Miller KK, Murad MH, Rosner W, Santoro N. Androgen therapy in women: a reappraisal: an Endocrine Society clinical practice guideline. <i>J Clin Endocrinol Metab</i>. 2014;99:3489-510.

Slow Medicine, an Italian movement of health professionals, patients and citizens promoting a Measured, Respectful and Equitable Medicine, launched the campaign "**Doing more does not mean doing better-Choosing Wisely Italy**" in Italy at the end of 2012, similar to Choosing Wisely in the USA. The campaign aims to help physicians, other health professionals, patients and citizens engage in conversations about tests, treatments and procedures at risk of inappropriateness in Italy, for informed and shared choices. The campaign is part of the Choosing Wisely International movement. Partners of the campaign are the National Federation of Medical Doctors' and Dentists' Orders (FNOMCeO), that of Registered Nurses' Orders (FNOPI), the Academy of Nursing Sciences (ASI), National Union of Radiologists (SNR), Tuscany regional health agency, PartecipaSalute, Altroconsumo, the Federation for Social Services and Healthcare of Aut. Prov. of Bolzano, Zadig. www.choosingwiselyitaly.org; www.slowmedicine.it

SIAMS (Italian Society of Andrology and Sexual Medicine) is a no profit association with more than 400 members, including physicians, endocrinologists, urologists, internists, biologists, and psychologists operating on the entire Italian nation. The endpoints of SIAMS are to promote information, formation, and basic, translational, and clinical research in the field of andrological sciences and sexual medicine with particular attention to pathophysiological, clinical, endocrine, neuroendocrine, and psychological aspects during the entire period of life of a person and of the couple, having both reproductive and sexual issue as main fields of interest.

www.siams.info