

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

**Five Recommendations from the Italian Association of Medical Endocrinologists (AME)**

<b>1</b>	<p><b>Thyroid US screening is not recommended in patients without thyroid disease's signs or symptoms and without thyroid carcinoma family history.</b></p> <p>Thyroid ultrasound is a powerful investigation for the diagnosis of thyroid disorders, but its use must be guided by the proper clinical context. Small thyroid nodules are highly prevalent in the general population, and, in most cases, their clinical significance is limited. Over the last few decades, there has been a significant increase in the diagnosis of thyroid cancer. Most of these new cases, however, regard small well-differentiated tumors, whose detection has failed to produce a concomitant decrease in mortality, raising the issue of over-diagnosis. The indiscriminate use of thyroid ultrasound may lead to detection of tumors which, while not affecting individual prognosis, can cause anxiety and harm to the patient, promote unnecessary diagnostic and surgical interventions, and add to the costs for the taxpayer.</p>
<b>2</b>	<p><b>Avoid excess bone density testing: intervals less than two years are rarely necessary.</b></p> <p>DXA bone scan is the procedure of choice in the evaluation of bone density. Periodic standardized assessment is useful to monitor response to treatment, particularly in individuals at major risk of bone loss (e.g. patients on chronic steroid treatment). It is important to keep in mind that a) annual bone loss in postmenopausal women averages 0.5-2.0-% b) most available treatments increase bone density about 1-6% c) minimal detectable variation from baseline examination is 2-4%. Based on these considerations, and allowing for rare exceptions, a repeat DXA scan is justified only after 16-24 months from the beginning or change of treatment.</p>
<b>3</b>	<p><b>Use of free testosterone testing is not recommended for hypogonadism or hyperandrogenism diagnosis.</b></p> <p>Testosterone is the most important androgen hormone, and its evaluation is recommended in several clinical situations, both in males and females. It must be taken into account, however, that the measurement methods used in most labs are not immune to analytic problems which may interfere with diagnostic accuracy. The gold standard, equilibrium dialysis, is not widely available. It is recommended that clinicians continue to request serum total testosterone concentration.</p>
<b>4</b>	<p><b>FT3 testing is not necessary in most thyroid diseases patients.</b></p> <p>Measurement of serum concentration of thyroid hormones helps confirm the clinical suspicion of thyroid dysfunction and evaluate response to treatment. In daily practice, it is quite common that symptoms be non specific (anxiety, depression, abnormal serum lipids, obesity, palpitations ...) and that the pre-test probability of a thyroid disorder be low. In these cases, it is recommended to measure the TSH only, reserving measurement of FT4 and FT3 to the situations where the TSH results suppressed. The measurement of FT3 is not useful in adjusting dosage in patients on regular replacement with levothyroxine.</p>
<b>5</b>	<p><b>Thyroid nodules patients should not be treated with L-thyroxine except in selected cases.</b></p> <p>Treatment with levothyroxine at TSH-suppressive dosage may modestly reduce the growth of a pre-existent thyroid nodule, prevent the development of new nodules and reduce the size of the thyroid. A significant reduction of the volume of the thyroid is however limited to a minority of cases treated for protracted periods (usually small, newly detected nodules with presence of colloid on FNA). The growth of a nodule is indeed not only due to TSH stimulation, as other growth factors may also be involved. TSH suppressive doses of Levothyroxine may induce subclinical thyrotoxicosis, which is particularly risky in postmenopausal women (worsening of osteoporosis) and in the elderly (worsening of pre-existent cardiac disease). This treatment should be considered only in highly selected cases.</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 Association of Medical Endocrinologists (AME) has created a 4-member working group («AME for sustainable medicine») charged with evaluating the literature and reach a preliminary consensus on 5 low values medical interventions. These results have been approved by the AME Central Committee before being released on line to all members of the society. Interest on the topic is widespread and it will be the subject of a dedicated session in the upcoming national AME congress. The working group is currently focusing on a second list and cooperating in other initiatives promoted by the slow medicine movement.

## Sources

1	<ol style="list-style-type: none"> <li>Gharib H and the AACE /AME/ETA Task Force on Thyroid Nodules. AACE, AME, and ETA medical guidelines for clinical practice for the diagnosis and management of thyroid nodules. J Endocrinol Invest executive summary 2010, 33: 287.</li> <li>Huang TW, et al. Systematic review of clinical practice guidelines in the diagnosis and management of thyroid nodules and cancer. BMC Medicine 2013, 11: 191.</li> <li>Cooper DS, Doherty GM, Haugen BR et Al. Revised American Thyroid Association Management Guidelines for Patients with Thyroid Nodules and Differentiated Thyroid Cancer. Thyroid 2009, 19: 1-48.</li> <li>Brito JP, Morris JC, Montori VM. Thyroid cancer: zealous imaging has increased detection and treatment of low risk tumours BMJ 2013; 347:f4706.</li> <li>Davies L, Welch HG. Current thyroid cancer trends in the United States. JAMA Otolaryngol Head Neck Surg. 2014 Apr;140(4):317-22.</li> </ol>
2	<ol style="list-style-type: none"> <li>2013 ISCD Officials Positions-adult <a href="http://www.iscd.org/official%20positions">http://www.iscd.org/official positions</a> 2013.</li> <li>Watts NB, Bilezikian JP, Camacho PM et al American Association of Clinical Endocrinologist. Medical guidelines for Clinical Practice for the diagnosis and treatment of postmenopausal. Osteoporosis Endocr Pract 2010;16 suppl 3:1.</li> <li><a href="http://www.siomms.it/downup/LINEE-GUIDA-DIAGNOSI-PREVENZIONE-TERAPIA-OSTEOPOROSI-2012.pdf">http://www.siomms.it/downup/LINEE-GUIDA-DIAGNOSI-PREVENZIONE-TERAPIA-OSTEOPOROSI-2012.pdf</a></li> </ol>
3	<ol style="list-style-type: none"> <li>Miller KK, Rosner W, Lee H, Hier J, Sesmilo G, Schoenfeld D, Neubauer G, Klibanski A. Measurement of free testosterone in normal women and women with androgen deficiency: comparison of methods. J Clin Endocrinol Metab. 2004 Feb;89(2):525-33.</li> <li>Position Statement dell'Endocrine Society. J Clin Endocrinol Metab 2010;95(6):2536-59.</li> <li>Fritz KS, McKean AJS, Nelson JS et al. Analog based free testosterone methods linked to total testosterone concentrations, not free testosterone concentrations. Clin Chem 2008, 54 (3): 512-6.</li> <li>Caputo M, Monti S. Gonadi femminili: le valutazioni ormonali. In ENDOWIKI, Lo stato dell'arte in Endocrinologia. <a href="http://www.endowiki.it">www.endowiki.it</a></li> </ol>
4	<ol style="list-style-type: none"> <li>UK Guidelines for the Use of Thyroid Function Tests (ACB-BTA-BTF), 2006. <a href="http://www.acb.org.uk/">http://www.acb.org.uk/</a></li> <li>AACE Medical Guidelines for Clinical Practice for the Evaluation and treatment of Hyperthyroidism and Hypothyroidism. Endocr Pract 2002;8:457-69.</li> <li>AACE/AME Medical Guidelines for Clinical Practice for the Diagnosis and Management of Thyroid Nodules. Endocr Pract 2006; 12: 63-102.</li> <li>Demers LM, Spencer CA. Laboratory medicine practice guidelines: laboratory support for the diagnosis and monitoring of thyroid disease. Clin Endocrinol (Oxf) 2003, 58: 138-40.</li> </ol>
5	<ol style="list-style-type: none"> <li>Papini E, Petrucci L, Guglielmi R, et Al. Long-term changes in nodular goiter: a 5-year prospective randomized trial of levothyroxine suppressive therapy for benign cold thyroid nodules. J Clin Endocrinol Metab. 1998;83:780-83.</li> <li>La Rosa GL, Ippolito AM, Lupo L, Cercabene G, Santonocito MG, Vigneri R, Belfiore A. Cold thyroid nodule reduction with L-thyroxine can be predicted by initial nodule volume and cytological characteristics. Clin Endocrinol Metab. 1996;81:4385-7.</li> <li>Durante C, Costante G, Lucisano G, et Al.. The natural history of benign thyroid nodules. JAMA. 2015 Mar 3;313(9):926-35.</li> <li>Gharib H and the AACE /AME/ETA Task Force on Thyroid Nodules. AACE, AME and ETA medical guidelines for clinical practice for the diagnosis and management of thyroid nodules. J Endocrinol Invest executive summary 2010, 33: 287.</li> </ol>

**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](http://www.choosingwiselyitaly.org); [www.slowmedicine.it](http://www.slowmedicine.it)

**AME** stems from the need to reunite all Italian clinical endocrinologists, and its mission is the improvement of patient care and the definition of Endocrinology as a specialty. Among the other goals of our non profit organization, there are : promotion of the figure of the Clinical Endocrinologist; promotion of continuing medical evaluation in Endocrinology; coordination of research and scientific growth in this field. In regard to professional development and continuing medical evaluation, AME arranges periodic meetings, courses and workshops with a special focus on subjects affecting daily medical practice. The development of clinical guidelines, data bank and other tools is a subject of particular attention and open to all members.

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