

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)

1	<p>Do not routinely request / perform thyroid ultrasound in subjects without signs and / or symptoms of thyroid disease and not belonging to risk groups for thyroid cancer and limit the indication and execution of fine needle aspirations on low-risk nodules.</p> <p>Thyroid ultrasound is a fundamental test in the diagnosis of thyroid pathologies; its use, however, must take place in an appropriate clinical setting. Small thyroid nodules are very common in the general population and, in most cases, benign. Furthermore, in the last decades, there has been a notable increase in the diagnosis of thyroid carcinoma (often differentiated and small in size), not associated with an increase in mortality, thus highlighting a condition of overdiagnosis. The indiscriminate execution of ultrasound not only identifies a large number of thyroid nodules devoid of "pathological weight" but can cause anxiety in the patient and an increase in diagnostic procedures and surgical interventions (possible overtreatment), with consequent unjustified costs for the community, as well as possible harm to the patient. It is therefore recommended 1) to avoid ultrasound screening on populations not at risk for thyroid cancer; 2) avoid frequent ultrasound checks in subjects with chronic autoimmune thyroiditis and without nodules; 3) limit the indication and execution of fine needle aspirations on nodules which, based on the stratification of the risk of malignancy on ultrasound, belong to the low-risk classes.rischio.</p>
2	<p>Avoid excess bone density testing: intervals less than two years are rarely necessary.</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 post-menopausal 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>
3	<p>Use of free testosterone testing is not recommended for hypogonadism or hyperandrogenism diagnosis.</p> <p>Testosterone is the body's most important androgen. The measure of its concentration is indicated in numerous clinical conditions in both males and females. However, there are analytical problems such as to make the interpretation and use of the free quota dosage not always transparent; the reference method, equilibrium dialysis, is not feasible on a large scale. It is therefore preferable not to propose this type of evaluation but to rely on total testosterone</p>
4	<p>Do not prescribe the dosage of FT3 (free triiodothyronine) for the initial evaluation of the functional state of the thyroid and in the periodic control of hypothyroidism in therapy.</p> <p>Hormonal dosages are useful biochemical confirmation of thyroid dysfunction in the presence of manifest signs and symptoms and indispensable reference for subsequent checks during therapy. However, it is quite common for people who have only nonspecific disorders (anxiety, depression, dyslipidemia, obesity, heart rhythm disturbances ...) to go to the doctor and in whom the probability of pathology is very low. In these cases it is correct to measure only the TSH and to complete the evaluation by measuring the thyroid hormones (FT4 and rarely FT3) only if pathological TSH values are found. In monitoring hypothyroidism replacement therapy with L-thyroxine, the FT3 dosage is not useful for assessing the adequacy of the posology.</p>
5	<p>Thyroid nodules patients should not be treated with L-thyroxine except in selected cases.</p> <p>The growth of thyroid nodules, the appearance of other nodules and the increase in thyroid volume can be partially prevented by treatment with levo-thyroxine for TSH-suppressive purposes. However, a clinically significant volume reduction is achieved only with long-term therapies and in a minority of patients (small, recently diagnosed colloid nodules). The growth of the nodules is in fact influenced not only by TSH but also by other growth factors. Furthermore, suppressive therapy with L-thyroxine creates a condition of subclinical thyrotoxicosis which can be risky especially for women in menopause (favoring osteoporosis) and for the elderly (for the possible worsening of pre-existing heart disease or the onset of atrial fibrillation). This therapy can therefore be considered only in young subjects, in selected cases, while, if already in progress, it must be suspended in the case of menopausal women and elderly subjects, re-evaluating the thyroid function over time.</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. The recommendations were revised in November 2021.

Sources

1	<ol style="list-style-type: none"> 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. 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. Haugen BR, Alexander EK, Bible KC, Doherty GM, Mandel SJ, Nikiforov YE, Pacini F, Randolph GW, Sawka AM, Schlumberger M, Schuff KG, Sherman SI, Sosa JA, Steward DL, Tuttle RM, Wartofsky L. 2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer: The American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer. Thyroid. 2016 Jan;26(1):1-133. doi: 10.1089/thy.2015.0020. PMID: 26462967; PMCID: PMC4739132. Brito JP, Morris JC, Montori VM. Thyroid cancer: zealous imaging has increased detection and treatment of low risk tumours BMJ 2013; 347:f4706. Davies L, Welch HG. Current thyroid cancer trends in the United States. JAMA Otolaryngol Head Neck Surg. 2014 Apr;140(4):317-22.
2	<ol style="list-style-type: none"> 2013 ISCD Officials Positions-adult http://www.iscd.org/official positions 2013. 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. http://www.siomms.it/downup/LINEE-GUIDA-DIAGNOSI-PREVENZIONE-TERAPIA-OSTEOPOROSI-2012.pdf
3	<ol style="list-style-type: none"> 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. Position Statement dell'Endocrine Society. J Clin Endocrinol Metab 2010;95(6):2536-59. 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. Caputo M, Monti S. Gonadi femminili: le valutazioni ormonali. In ENDOWIKI, Lo stato dell'arte in Endocrinologia. www.endowiki.it
4	<ol style="list-style-type: none"> Maestri E, Ciardullo AV, Magrini N. Raccomandazioni per la diagnostica delle malattie tiroidee. Piano Nazionale Linee Guida, Istituto Superiore di Sanità, 2003 http://www.pnlg.it/lgn_diagnosi_malattie_tiroidee NACB-ATA Guidelines "Laboratory Support for the Diagnosis and Monitoring of Thyroid Disease", 2002. http://www.aacc.org/AACC/members/nacb/LMPG/OnlineGuide/PublishedGuidelines/ThyroidDisease/ UK Guidelines for the Use of Thyroid Function Tests (ACB-BTA-BTF), 2006. http://www.acb.org.uk/ AACE Medical Guidelines for Clinical Practice for the Evaluation and treatment of Hyperthyroidism and Hypothyroidism. Endocr Pract 2002;8:457-69. AACE/AME Medical Guidelines for Clinical Practice for the Diagnosis and Management of Thyroid Nodules. Endocr Pract 2006; 12: 63-102. 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.
5	<ol style="list-style-type: none"> Gharib H, Mazzaferri EL. Thyroxine suppressive therapy in patients with nodular thyroid disease. Ann Intern Med. 1998;128:386-94. 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. 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. Durante C, Costante G, Lucisano G, et Al.. The natural history of benign thyroid nodules. JAMA. 2015 Mar 3;313(9):926-35. Gharib H, Papini E, Paschke R, Duick DS, Valcavi R, Hegedus L, Vitti P, and the AACE /AME/ETA Task Force on Thyroid Nodules. American Association of Clinical Endocrinologists (AACE), Associazione Medici Endocrinologi (AME), and European Thyroid Association (ETA) medical guidelines for clinical practice for the diagnosis and management of thyroid nodules. J Endocrinol Invest executive summary 2010, 33: 287..

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, Zedig.

www.choosingwiselyitaly.org; 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.

www.assoziazionemediciendocrinologi.it