

Tests, treatments and procedures at risk of inappropriateness in Italy

that Physicians and Patients should talk about.

**Five Recommendations from SIPMeL
Italian Society of Clinical Pathology and Laboratory Medicine
Study Group on Autoimmune Diseases (SIPMeL GdS-AI)**

1	<p>Anti-TPO and anti-Tg antibodies should not be sought in the case of autoimmune thyrotoxicosis / hyperthyroidism; search instead for anti-TSHR antibodies (TRAb). The research of anti-TPO is useful only in case of negativity of TRAb (possible diagnosis of non-Graves thyrotoxicosis).</p> <p>In the diagnosis of hyperthyroidism, the research of anti-TPO and anti-Tg is widely requested as a first test, while the diagnostic antibody is the one directed towards the TSH receptor.</p>
2	<p>Do not request anti-TPO (anti-thyroid peroxidase) and anti-Tg (anti-thyroglobulin) antibody tests in the monitoring of autoimmune thyroid disease.</p> <p>The repetition over time of anti-TPO and anti-Tg antibodies for follow-up, in case of diagnosed autoimmune thyropathy, has no clinical utility.</p>
3	<p>Specific autoantibodies (AChR, MuSK, Lrp4) should not be required as a profile when myasthenia gravis is suspected, but the initial test is represented only by anti-AchR antibodies. The determination of anti-Musk antibodies should be reserved for anti-AChR negative patients, while that of anti-Lrp4 antibodies should be limited to anti-AChR and anti-MuSK negative patients.</p> <p>Since the three autoantibodies are mutually exclusive, it is not useful to simultaneously request the determination of all three antibodies, because about 80% of patients with myasthenia have only anti-AChR, 16% only anti-MuSK and the remaining 4% only anti-Lrp4 antibodies.</p>
4	<p>Invasive endoscopic investigation with multiple biopsies should not be performed in all patients suspected of autoimmune gastritis but only in those presenting with alteration of serum markers of gastric function (pepsinogen I and II, gastrin 17) and/or antibodies against gastric parietal cells (PCA) and anti-intrinsic factor (IFA). For the determination of PCA and IFA, the use of quantitative immunometric methods is preferable.</p> <p>In the presence of gastric function compatible with atrophy and autoantibody positivity the suspicion is substantial and it is necessary to proceed to gastric biopsy.</p>
5	<p>The search for anti-insular cell antibodies (ICA) and anti-insulin antibodies (IAA) should not be performed in the case of suspected late-onset autoimmune diabetes (LADA) or gestational diabetes mellitus. Search instead simultaneously for anti-GAD, anti-IA2 and anti-ZnT8 antibodies.</p> <p>The finding of even one antibody positivity among anti-GAD, anti-IA2 and anti-ZnT8 is a diagnostic criterion of LADA and suggests an autoimmune pathogenesis in gestational diabetes mellitus.</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.

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How this list was created

In November 2017, the SIPMeL Study Group in Autoimmunology (GdS-AI) organized a national conference in Santa Margherita Ligure to formulate and discuss some proposals regarding procedures at greater risk of inappropriateness in the field of autoimmune laboratory diagnostics. Of the 19 proposals presented by five working groups and submitted to the evaluation by televoting and discussion in the hall with the participants, five were chosen and approved. In the following months, additional comments and proposals were collected. The National Council has approved them.

Sources

1	<ol style="list-style-type: none"> 1. Tozzoli R, Bagnasco M, Giavarina D, Bizzaro N (2012) TSH receptor autoantibody immunoassay in patients with Graves' disease: improvement of diagnostic accuracy over different generations of methods. Systematic review and meta-analysis. <i>Autoimmun Rev</i> 12:107-113 2. Ross DS, Burch HB, Cooper DS, Greenlee MC, Laurberg P, Maia AL et al (2016) 2016 American Thyroid Association Guidelines for Diagnosis and Management of Hyperthyroidism and Other Causes of Thyrotoxicosis. <i>Thyroid</i> 26:1343-1421
2	<ol style="list-style-type: none"> 1. Schmidt M, Voell M, Rahlff I, Dietlein M, Kobe K, Faust M, et al. Long-term follow-up of antithyroid peroxidase antibodies in patients with chronic autoimmune thyroiditis (Hashimoto's thyroiditis) treated with levothyroxine. <i>Thyroid</i> 2008;18:755-60. 2. Akamizu T, Amino N. Hashimoto's Thyroiditis. In: De Groot LJ, Chrousos G, Dungan K, et al, eds. <i>Endotext</i> [Internet]. South Dartmouth (MA) 2017. Available from: https://www.ncbi.nlm.nih.gov/books/NBK285557
3	<ol style="list-style-type: none"> 1. Leite MI, Waters P, Vincent A (2010) Diagnostic use of autoantibodies in myasthenia gravis. <i>Autoimmunity</i> 43:371-379 2. Evoli A (2017) Myasthenia gravis: new developments in research and treatment. <i>Curr Opin Neurol</i> 30:464-470 3. Gilhus NE (2016) Myasthenia gravis. <i>N Engl J Med</i> 375:2570-2581 4. Zisimopoulou P, Evangelakou P, Tzartos J, Lazaridis K, Zouvelou V, Mantegazza R et al (2014) A comprehensive analysis of the epidemiology and clinical characteristics of anti-LRP4 in myasthenia gravis. <i>J Autoimmun</i> 52:139-145
4	<ol style="list-style-type: none"> 1. Toh BH (2017) Pathophysiology and laboratory diagnosis of pernicious anemia. <i>Immunol Res</i> 65:326-330 2. Bizzaro N, Antico A (2014) Diagnosis and classification of pernicious anemia. <i>Autoimmunity Reviews</i> 13:565-568 3. Rusak E, Chobot A, Krzywicka A, Wenzlau J (2016) Anti-parietal cell antibodies – diagnostic significance. <i>Adv Med Sci</i> 61:175-179
5	<ol style="list-style-type: none"> 1. American Diabetes Association (2009) Diagnosis and classification of diabetes mellitus (Position Statement). <i>Diabetes Care</i> 32(Suppl. 1):S62–S67 2. Buzzetti R, Zampetti S, Maddaloni E (2017) Adult-onset autoimmune diabetes: current knowledge and implications for management. <i>Nat Rev Endocrinol</i> 13:674-686 3. de Leiva A, Mauricio D, Corcoy R (2007) Diabetes-Related Autoantibodies and Gestational Diabetes. <i>Diabetes Care</i> 30 (Suppl 2):S127-33

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

The Italian Society of Clinical Pathology and Laboratory Medicine (SIPMeL) is a national medical/scientific association of professionals working in clinical laboratories. The SIPMeL was established in 2014 after the re-union of SIMeL (Italian Society of Laboratory Medicine), founded in 1986, and AIPaCMeM (Italian Association of Clinical Pathology and Molecular Medicine). The structure of society with 2000 members is federal and includes three professional components: medical doctors, graduates in scientific disciplines (DSLb) and biomedical laboratory technicians (STLb). The aim of the society is to develop and disseminate the professional standards on which the laboratory "good practice" is based. The participants to the education activities of the society receive training credits in accordance with the Ministry of Health's Continuing Medical Education Program. The scientific research and training activities are promoted and maintained by 22 study groups. www.sipmel.it/it/