

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

**Five Recommendations from the Italian Association of Hospital Cardiologists (ANMCO)**

<b>1</b>	<p><b>Don't perform routine echocardiography as part of routine follow-up in patients with mild to moderate valvular heart disease or with left ventricular dysfunction, in the absence of new symptoms, signs or clinical events.</b></p> <p>Due to the slow evolution of mild to moderate valvular disease and the clinical uselessness of reevaluating left ventricular function in clinically stable patients, an echocardiogram is not recommended unless there is a change in clinical status</p>
<b>2</b>	<p><b>Don't perform exercise stress test as part of routine follow-up in asymptomatic patients after surgical or percutaneous revascularization.</b></p> <p>Since there are no RCT showing events' reduction with stress test procedure after revascularization, stress test should only be performed to evaluate incomplete revascularizations or changes in clinical status.</p>
<b>3</b>	<p><b>Don't perform 24 hour Holter monitoring in patients with effort chest pain who can perform exercise stress test, unless arrhythmias should be investigated.</b></p> <p>Since during Holter monitoring the amount of stress could not be calibrated, sensitivity and specificity for detecting ischemia in patients with chest pain are low. In these conditions stress test is superior.</p>
<b>4</b>	<p><b>Don't routinely perform stress cardiac imaging test during the initial evaluation of suspected ischemic heart disease.</b></p> <p>Stress cardiac imaging test should be performed only when relevant risk factors are present: diabetes in patient older than 40 - years-old, peripheral arterial disease, greater than 20% Framingham risk, or in the presence of EKG modification affecting the interpretation of the stress test</p>
<b>5</b>	<p><b>Don't perform exercise stress test as screening of ischemic heart disease in asymptomatic patients at low cardiovascular risk</b></p> <p>In asymptomatic patients without risk factors, the likelihood of coronary heart disease is very low. The stress test increases risk of false positives and induces further diagnostic tests to rule out the doubts raised by the test.</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.

released: 1 June 2014 - last updated: 1 June 2017

## How this list was created

A working group defined 17 tests, treatments and procedures at high risk of inappropriateness in Italy. To choose the top 5, it was decided to exclude those already considered inappropriate in the international guidelines, those with high technical characteristics (e.g., coronary angioplasty for FFR > 0,80, CRT for QRS < 0.12 sec), those occasionally prescribed in Italy, focusing on the grey areas of frequent performed procedures, though at low risk for patients.

## Sources

<b>1</b>	<p>1. Douglas PS, Garcia MJ, Haines DE, Lai WW, Manning WJ, Patel AR, Picard MH, Polk DM, Ragosta M, Ward RP, Weiner RB. ACCF/AHA/ASA/ASNC/HFSA/HRS/SCAI/SCCM/SCCT/SCMR 2011 Appropriate Use Criteria for Echocardiography. A Report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, American Society of Echocardiography, American Heart Association, American Society of Nuclear Cardiology, Heart Failure Society of America, Heart Rhythm Society, Society for Cardiovascular Angiography and Interventions, Society of Critical Care Medicine, Society of Cardiovascular Computed Tomography, and Society for Cardiovascular Magnetic Resonance Endorsed by the American College of Chest Physicians. <i>J Am Coll Cardiol</i>. 2011 Mar 1;57(9):1126-66.</p>
<b>2</b>	<p>1. Fleisher LA, Beckman JA, Brown KA, Calkins H, Chaihof EL, Fleischmann KE, Freeman WK, Froehlich JB, Kasper EK, Kersten JR, Riegel B, Robb JF. ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery: a report of the American College of Cardiology/American Heart Association Task force on Practice Guidelines (Writing Committee to Revise the 2002 Guidelines on Perioperative Cardiovascular Evaluation for Noncardiac Surgery). <i>J Am Coll Cardiol</i> 2007;50:e159-24.</p> <p>2. Wijns W, Kolh P, Danchin N, Di Mario C, Falk V, Folliguet T, Garg S, Huber K, James S, Knuuti J, Lopez-Sendon J, Marco J, Menicanti L, Ostojic M, Piepoli MF, Pirllet C, Pomar JL, Reifart N, Ribichini FL, Schlij MJ, Sergeant P, Serruys PW, Silber S, Sousa Uva M, Taggart D. Guidelines on myocardial revascularization The Task Force on Myocardial Revascularization of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS)-ESC/EACTS Guidelines on myocardial revascularization. <i>Eur Heart J</i> 2010;31:2501-2555.</p>
<b>3</b>	<p>1. Crawford MH, Bernstein SJ, Deedwania PC, DiMarco JP, Ferrick KJ, Garson A Jr, Green LA, Greene HL, Silka MJ, Stone PH, Tracy CM, Gibbons RJ, Alpert JS, Eagle KA, Gardner TJ, Gregoratos G, Russell R, Ryan TH, Smith SC. ACC/AHA Guidelines for ambulatory electrocardiography. A report of the American College of Cardiology/American Heart Association task force on practice guidelines (Committee to revise the guidelines for ambulatory electrocardiography) Developed in collaboration with the North American Society for pacing and Electrophysiology. <i>J Am Coll Cardiol</i>. 1999 Sep; 34(3):912-48.</p> <p>2. Zipes DP, Camm AJ, Borggrefe M, Buxton AE, Chaitman B, Fromer M, Gregoratos G, Klein G, Moss AJ, Myerburg RJ, Priori SG, Quinones MA, Roden DM, Silka MJ, Tracy C. ACC/AHA/ESC 2006 guidelines for management of patients with ventricular arrhythmias and the prevention of sudden cardiac death: a report of the American College of Cardiology/American Heart Association Task Force and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Develop Guidelines for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death). <i>Europace</i> 2006;8:746-837.</p>
<b>4</b>	<p>1. Hendel RC, Berman DS, Di Carli MF, Heidenreich PA, Henkin RE, Pellikka PA, Pohost GM, Williams KA. ACCF/ASNC/ACR/AHA/ASE/SCCT/SCMR/SNM 2009 appropriate use criteria for cardiac radionuclide imaging: a report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, the American Society of Nuclear Cardiology, the American College of Radiology, the American Heart Association, the American Society of Echocardiography, the Society of Cardiovascular Computed Tomography, the Society for Cardiovascular Magnetic Resonance, and the Society of Nuclear Medicine. <i>J Am Coll Cardiol</i> 2009;53:2201-29.</p>
<b>5</b>	<p>1. Greenland P, Alpert JS et al. 2010 ACCF/AHA Guideline for Assessment of Cardiovascular Risk in Asymptomatic Adults: Executive Summary : A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. <i>Circulation</i>. 2010;122:2748-2764.</p> <p>2. Fihn SD, Gardin JM, Abrams J et al. 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: executive summary. A report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. <i>Circulation</i> 2012; 126:3097-3137.</p>

**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)

**The National Hospital Cardiologists Association (ANMCO)** is a 5,000 member non-profit medical association of Italian cardiologists working in the National Health Service. Founded in 1963 the ANMCO promotes good clinical practice, prevention and rehabilitation of cardiovascular diseases through organizational proposals, vocational education and training, promotes and conducts clinical studies, and leads the formulation and development of practical guidelines. From 2006 ANMCO is ISO 9001 certificated.