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## **Bibliografía**

1. Rodríguez-Artalejo F, Benegas J, Guallar-Castillón P. Epidemiología de la Insuficiencia cardiaca. *Rev Esp cardiol* 2004; 57(2):163-70.
2. McCullough P, Philbin E, Spertus J, Kaatz S, Sandberg K, Weaver D. Confirmation of a heart failure epidemic: findings from the Resource Utilisation Among Congestive Heart Failure (REACH) Study. *J Am Coll Cardiol* 2002;39(1):60-9.
3. T. Parajón, J. Lupón, B. González, A. Urrutia, S. Altimir, R. Coll, M. Prats, V. Valle. Use of the <Minnesota Living With Heart Failure> Quality of Life Questionnaire in Spain. *Rev. Esp. Cardiol.* 2004; 57(2):155-160.
4. McMurray JJ, Stewart S. Epidemiology, aetiology, and prognosis of heart failure. *Heart* 2000; 83(5):596-602.
5. Morales J.M, Sarriá A. Modelos alternativos de atención para pacientes con insuficiencia cardiaca: revisión sistemática. *Rev. Calidad Asistencial.* 2006; 21(1):51-60.
6. Leite-Moreira, AF. Current perspectives in diastolic dysfunction and diastolic heart failure. *Heart* 2006; 92(5):712-718.
7. Zile MR, Brutsaert DL. New concepts in diastolic dysfunction and diastolic heart failure. Part I: diagnosis, prognosis and measurements of diastolic function. *Circulation* 2002; 105 (11):1387-93.
8. Senni M, Redfield M. Heart failure with preserved systolic function. A different natural history? *JACC* 2001; 38(5):1277-82.
9. Banerjee P, Maberjee T, Khand A, Clark AL, Cleland JG F. Diastolic Heart failure: neglected or misdiagnosed?. *JACC* 2002; 39(1):138-41.
10. Vasan RS, Levy D. Defining diastolic heart failure: a call for standardized diagnostic criteria. *Circulation* 2000;101(17): 2118-21.
11. Angeja BG, Grossman W. Evaluation and management of diastolic heart failure. *Circulation* 2003; 107(5):659-63 .
12. Owan TE, Redfield MM. Epidemiology of diastolic heart failure. *Prog Cardiovasc Dis* 2005; 47(5):320-32.
13. Bayes-Genis A, Vázquez R, Puig T, Fernandez-Palomeque C, Fabregat J, Bardají A, Pascual-Figal D, Ordoñez-Llanos J, Valdes M, Gabarrús A, Pavon R, Pastor L, Gonzalez Juanatey JR, Almendral J, Fiol M, Nieto V, Macaya C, Cinca J, Bayes de Luna A; for the MUSIC Study Group. Left atrial enlargement and NT-proBNP as predictors of sudden cardiac death in patients with heart failure. *Eur J Heart Fail* 2007 Aug; 9(8):802-7.
14. Vázquez R, Bayes-Genis A, Cygankiewicz I, Pascual-Figal D, Grigorian-Shamagian L, Pavon R, Gonzalez-Juanatey JR, Cubero JM, Pastor L, Ordonez-Llanos J, Cinca J, de Luna AB; MUSIC Investigators. The MUSIC Risk score: a simple method for predicting mortality in ambulatory patients with chronic heart failure. *European Heart Journal* 2009 May; 30(9):1088-96.
15. Jessup M, Abraham WT, Casey DE, Feldman AM, Francis GS, Ganiats TG, Konstam MA, Mancini DM, Rahko PS, Silver MA, Stevenson LW, Yancy CW. 2009 Focused Update: ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines: Developed in Collaboration With the International Society for Heart and Lung Transplantation. *Circulation.* 2009 Apr 14; 119(14):1977-2016.
16. McMurray JJ, Adamopoulos S, Anker SD, Auricchio A, Böhm M, Dickstein K, Falk V, et al. ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012: The Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2012 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association (HFA) of the ESC. *Eur Heart J.* 2012 May 19.
17. Kjekshus J. Arrhythmias and mortality in congestive heart failure. *Am J Cardiol* 1990; 65(19): 421-481.
18. Cosin J, Bayes de Luna A, Navarro F, Navarro Lima A. Muerte súbita en insuficiencia cardiaca (MUSIC). *Rev Esp Cardiol* 1996; 49(10): 732-40.

19. Guindo J, Bayes de Luna A, Dominguez de Rozas JM, et al. Sudden death and heart failure. *Heart Failure Rev* 1997; 1:249.
20. Kühl U, Pauschinger M, Noutsias M, Seeborg B, Bock T, Lassner D, Poller W, Kandolf R, Schultheiss HP. High prevalence of viral genomes and multiple viral infections in the myocardium of adults with "idiopathic" left ventricular dysfunction. *Circulation*. 2005 Feb 22; 111(7):887-93.
21. O'Neill JO, Bott-Silverman CE, McRae AT 3rd, Troughton RW, Ng K, Starling RC, Young JB. B-type natriuretic peptide levels are not a surrogate marker for invasive hemodynamics during management of patients with severe heart failure. *Am Heart J*. 2005 Feb; 149(2):187-9.
22. Dokainish H, Zoghbi WA, Lakkis NM, Al-Bakshy F, Dhir M, Quinones MA, Nagueh SF. Optimal non-invasive assessment of left ventricular filling pressures: a comparison of tissue Doppler echocardiography and B-type natriuretic peptide in patients with pulmonary artery catheters. *Circulation*. 2004 May 25; 109(20):2432-9.
23. Forfia PR, Watkins SP, Rame JE, Stewart KJ, Shapiro EP. Relationship between B-type natriuretic peptides and pulmonary capillary wedge pressure in the intensive care unit. *J Am Coll Cardiol* 2005; 45(10): 1667-71.
24. Tsuji H, Nishino N, Kimura Y, Yamada K, Nukui M, Yamamoto S, Iwasaka T, Takahashi H. Haemoglobin level influences plasma brain natriuretic peptide concentration. *Acta Cardiol*. 2004 Oct; 59(5):527-31.
25. Weber M, Dill T, Arnold R, Rau M, Ekinci O, Müller KD, Berkovitsch A, Mitrovic V, Hamm C. N-terminal B-type natriuretic peptide predicts extent of coronary artery disease and ischemia in patients with stable angina pectoris. *Am Heart J*. 2004 Oct; 148(4):612-20.
26. Hudson MP, O'Connor CM, Gattis WA, Tasissa G, Hasselblad V, Holleman CM, Gauden LH, Sedor F, Ohman EM. Implications of elevated cardiac troponin T in ambulatory patients with heart failure: a prospective analysis. *Am Heart J*. 2004 Mar; 147(3):546-52.
27. Anand IS, Latini R, Florea VG, Kuskowski MA, Rector T, Masson S, Signorini S, Mocarelli P, Hester A, Glazer R, Cohn JN; Val-HeFT Investigators. C-reactive protein in heart failure: prognostic value and the effect of valsartan. *Circulation*. 2005 Sep 6; 112(10):1428-34.
28. George J, Patal S, Wexler D, Abashidze A, Shmilovich H, Barak T, Sheps D, Keren G. Circulating erythropoietin levels and prognosis in patients with congestive heart failure: comparison with neurohormonal and inflammatory markers. *Arch Intern Med*. 2005 Jun 13; 165(11):1304-9.
29. Kistorp C, Faber J, Galatius S, Gustafsson F, Frystyk J, Flyvbjerg A, Hildebrandt P. Plasma adiponectin, body mass index, and mortality in patients with chronic heart failure. *Circulation*. 2005 Sep 20; 112(12):1756-62.
30. Bayes-Genis A, de Antonio M, Galán, Sanz H, Urrutia A, Cabanes R, et al. Combined use of high-sensitivity ST2 and NTproBNP to improve the prediction of death in heart failure *Eur J Heart Fail*. 2012 Jan;14(1):32-8.
31. Bristow MR, Saxon LA, Boehmer J, Krueger S, Kass DA, De Marco T, Carson P, DiCarlo L, Demets D, White BG, DeVries DW, Feldman AM for the Comparison of Medical Therapy, Pacing, and Defibrillation in Heart Failure (COMPANION) Investigators. Cardiac-resynchronization therapy with or without an implantable defibrillator in advanced chronic heart failure. *N Engl J Med*. 2004 May 20; 350(21):2140-50.
32. Cleland JG, Daubert JC, Erdmann E, Freemantle N, Gras D, Kappenberger L, Tavazzi L; Cardiac Resynchronization-Heart Failure (CARE-HF) Study Investigators. The Effect of Cardiac Resynchronization on Morbidity and Mortality in Heart Failure. *N Engl J Med*. 2005 Apr 14; 352(15):1539-49.
33. Morales JM, Sarriá A. Modelos alternativos de atención para pacientes con insuficiencia cardíaca: revisión sistemática. *Rev Calidad Asistencial*. 2006; 21(1):51-60.
34. Hebert PL, Sisk JE, Wang JJ, Tuzzio L, Casabianca JM, Chassin MR, Horowitz C, McLaughlin MA. Cost-effectiveness of nurse-led disease ma-

agement for heart failure in an ethnically diverse urban community. *Ann Intern Med.* 2008 Oct 21;149(8):540-8.

35. Dickstein K, Cohen-Solal A, Filippatos G, McMurray JJ, Ponikowski P, Poole-Wilson PA, Strömberg A, van Veldhuisen DJ, Atar D, Hoes AW, Keren A, Mebazaa A, Nieminen M, Priori SG, Swedberg K; ESC Committee for Practice Guidelines (CPG). Guía de práctica clínica de la Sociedad Europea de Cardiología (ESC) para el diagnóstico y tratamiento de la insuficiencia cardiaca aguda y crónica (2008). *Rev Esp Cardiol.* 2008; 61(12):1329.e1-1329.e70.

36. Kullig M, Erika S, Norbert WS. Comparing methodological quality and consistency of international guidelines for the management of patients with chronic heart failure. *Eur J Heart Failure.* 2003 Jun;5(3):327-35.

37. Jessup M, Brozena S. Heart Failure. *N Engl J Med.* 2003; 348(20): 2007-18.

38. Yu CM, Abraham WT, Bax J, Chung E, Fedewa M, Ghio S, Leclercq C, León AR, Merlino J, Nihoyannopoulos P, Notabartolo D, Sun JP, Tavazzi L; PROSPECT Investigators. Predictors of response to cardiac resynchronization therapy (PROSPECT)—study design. *Am Heart J.* 2005 Apr; 149(4):600-5.

39. Vázquez R, Álvarez JM, Álvarez A, Candau A, De Teresa E, Fonseca FJ, Hernández JM, Lapetra J, López B, López-Rodríguez L, Martínez A, Mayoral E, Muñoz I, Paneque P, Pastor L, Pavón R, Pino E, Rosell F, Santos J, Tercedor L, Zambrana JL. Plan Integral de Atención a las Cardiopatías de Andalucía 2005-2009. Sevilla, Consejería de Salud 2005.

40. Tang WH, Francis GS. The Year in Heart Failure. *J Am Coll Cardiol* 2005; 46 (11):2125–33.

41. Hunt SA, Abraham WT, Chin MH, Feldman AM, Francis GS, Ganiats TG, et al. 2009 focused update incorporated into the ACC/AHA 2005 guidelines for the diagnosis and management of heart failure in adults: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol.* 2009; 53:e1–90.

42. Scottish Intercollegiate Guidelines Network. Management of chronic heart failure. A national clinical guideline. Edinburgh: SIGN; 2007. (SIGN Guideline no. 95). Available from url: <http://www.sign.ac.uk>.

43. National Heart Foundation of Australia, Cardiac Society of Australia and New Zealand, Chronic Heart Failure Guidelines Expert Writing Panel. Guidelines for the prevention, detection and management of chronic heart failure in Australia, 2006. Sydney (Australia): National Heart Foundation of Australia; 2006 Nov. 79 p.

44. Proceso Asistencial Integrado Riesgo Vascular. Consejería de Salud. Junta de Andalucía. Sevilla 2010.

45. Aldámiz-Echevarría Iraurgi, B. Guía Fisterra de insuficiencia cardiaca (2011). Disponible en: <http://www.fisterra.com/guias-clinicas/insuficiencia-cardiaca/>.

46. NICE clinical guideline 108 Chronic heart failure: management of chronic heart failure in adults in primary and secondary care. National Institute for Health and Clinical Excellence, 2010.

47. Zannad F, McMurray JJ, Krum H, van Veldhuisen DJ, Swedberg K, Shi H, Vincent J, Pocock SJ, Pitt B; EMPHASIS-HF Study Group. Eplerenone in patients with systolic heart failure and mild symptoms. *N Engl J Med.* 2011 Jan 6; 364(1):11-21.

48. Mesa Cruz P (Coord.). Plan integral del tabaquismo de Andalucía 2005-2010. Junta de Andalucía, Consejería de Salud 2005.

49. Lindenfeld J, Albert NM, Boehmer JP, Collins SP, Ezekowitz JA, Givertz MM, Klapholz M, Moser DK, Rogers JG, Starling RC, Stevenson WG, Tang WHW, Teerlink JR, Walsh MN. Executive Summary: HFSA 2010 Comprehensive Heart Failure Practice Guideline. *J Card Fail* 2010; 16:475e539.

50. Dawber TR, Meadors GF, Moore FJ. Epidemiological approaches to heart disease: the Framingham Study. *Am J Public Health Nations Health.* 1951 Mar;41(3):279-81.

51. González\_Gay JM (Coord.). Proceso Asistencial Integrado Insuficiencia Cardiaca. Consejería de Salud; Junta de Andalucía. Sevilla 2002.

52. Levy WC, Mozaffarian D, Linker DT, Sutradhar SC, Ander SD, Cropp AB, Anand I, Maggioni A, Burton P, Sullivan MD, Pitt B, Poole-Wilson PA, Mann DL, Packer M. The Seattle Heart Failure Model: prediction of survival in heart failure. *Circulation*. 2006 Mar 21; 113(11):1424-33.
53. Pocock SJ, Wang D, Pfeffer MA, Yusuf S, McMurray JJ, Swedberg KB, Ostergren J, Michelson EL, Pieper KS, Granger CB. Predictors of mortality and morbidity in patients with chronic heart failure. *Eur Heart J*. 2006 Jan; 27(1):65-75.
54. Hunsicker LG, Adler S, Caggiula A, England BK, Greene T, Kusek JW, Rogers NL, Teschan PE. Predictors of the progression of renal disease in the Modification of Diet in Renal Disease Study. *Kidney Int*. 1997 Jun;51(6):1908-19.
55. Sociedad Española de Nefrología [sede Web]\*. [acceso 06 de julio de 2012] Calculadora de función renal de la Sociedad Española de Nefrología. Disponible en: <http://www.senefro.org/modules.php?name=calcfg>.
56. Vahanian A, Baumgartner H, Bax J, Butchart E, Dion R, Filippatos G, et al. Guidelines on the management of valvular disease. Dickstein K et al. Guía de práctica clínica de la Sociedad Europea de Cardiología (ESC) para el diagnóstico y tratamiento de la insuficiencia cardiaca aguda y crónica (2008). heart disease: The Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology. *Eur Heart J*. 2007 Jan; 28(2):230-68.
57. Van Kimmenade RRJ, Januzzi JL. Emerging Biomarkers in Heart Failure. *Clin Chem*. January 2012, 58(1): 127-138.
58. Jiménez-Navarro M, Delgado-Jiménez J, Rivera-Otero M, Roig-Minguell E, Segovia-Cubero J, Almenar-Bonet L, Anguita-Sánchez M, Bayés-Genis A, Crespo-Leiro M. Utilidad de los péptidos natriuréticos en la insuficiencia cardiaca. *Med Clin (Barc)* 2008; 15 (130): 591-596.
59. Paulus WJ, Tschope C, Sanderson JE, Rusconi C, Flachskampf FA, Rademakers FE, et al. How to diagnose diastolic heart failure: a consensus statement on the diagnosis of heart failure with normal left ventricular ejection fraction by the Heart Failure and Echocardiography Associations of the European Society of Cardiology. *Eur Heart J*. 2007 Oct; 28(20):2539-50.
60. 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, Society for Cardiovascular Magnetic Resonance, et al. ACCF/ASE/AHA/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, Society for Cardiovascular Magnetic Resonance American College of Chest Physicians. *J Am Soc Echocardiogr*. 2011 Mar; 24(3): 229-267.
61. Salpeter SR, Ormiston TM, Salpeter EE, Poole PJ, Cates CJ. Cardioselective beta blockers for chronic obstructive pulmonary disease: a meta-analysis. *Respir Med* 2003 Oct; 97(10): 1094-101.
62. Pitt B, Zannad F, Remme WJ, Cody R, Castaigne A, Perez A, et al. The effect of spironolactone on morbidity and mortality in patients with severe heart failure. Randomised Aldactone Evaluation Study Investigators. *N Eng J Med* 1999 Sep 2; 341(10): 709-17.
63. Pitt B, Remme W, Zannad F, Neaton J, Martinez F, Roniker B, Bittman R, Hurley S, Kleiman J, Gatlin M. Eplerenone, a selective aldosterone blocker, in patients with left ventricular dysfunction after myocardial infarction. *N Eng J Med* 2003 Apr 3; 348 (14): 1309-1321.
64. McMurray JJ, Ostergren J, Swedberg K, Granger CB, Held P, Michelson EL, et al. Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function

taking angiotensin-converting-enzyme inhibitors: the CHARM-Added trial. *Lancet* 2003 Sep 6; 362(9386): 767-71.

65. Cohn JN, Tognoni G; Valsartan Heart Failure Trial Investigators. A randomised trial of the angiotensin-receptor blocker valsartan in chronic heart failure. *N Eng J Med* 2001 Dec 6; 345(23): 1667-75.

66. Karl Swedberg, Michel Komajda, Michael Böhm, Jeffrey S Borer, Ian Ford, Ariane Dubost-Brama, Guy Lerebours, Luigi Tavazzi and on behalf of the SHIFT Investigators. Ivabradine and outcomes in chronic heart failure (SHIFT): a randomised placebo-controlled study. *The Lancet* 2010; 376:875-885.

67. Michael Böhm, Karl Swedberg, Michel Komajda, Jeffrey S Borer, Ian Ford, Ariane Dubost-Brama, Guy Lerebours, Luigi Tavazzi and on behalf of the SHIFT Investigators. Heart rate as a risk factor in chronic heart failure (SHIFT): the association between heart rate and outcomes in a randomised placebo-controlled trial. *The Lancet* 2010; 376: 886-894.

68. Committee for Medicinal Products for Human Use (CHMP). Procedure No.: EMEA/H/C/000597/II/0018 [Monografía en Internet]. Londres: Agencia Europea del Medicamento; 2012 [acceso 11 de julio de 2012]. Disponible en: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/EPAR\\_-\\_Assessment\\_Report\\_-\\_Variation/human/000597/WC500124542.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Assessment_Report_-_Variation/human/000597/WC500124542.pdf).

69. Narang, R, Cleland, JG, Erhardt, L, Ball, SG, Coats, AJ, Cowley, AJ, et al. Mode of death in chronic heart failure. A request and proposition for more accurate classification. *Eur Heart J* 1996 Sep; 17 (9):1390.

70. Cleland JG, Erhardt L, Murray G, Hall AS, Ball SG. Effect of ramipril on morbidity and mode of death among survivors of acute myocardial infarction with clinical evidence of heart failure. A report from the AIRE Study Investigators. *Eur Heart J*. 1997 Jan; 18(1):41-51.

71. Greenberg H, Case RB, Moss AJ, Brown MW, Carroll ER, Andrews ML; MADIT-II Investigators. Analysis of mortality events in the Multicenter Automatic Defibrillator Implantation Trial (MADIT-II). *J Am Coll Cardiol*. 2004 Apr 21; 43(8):1459-65.

72. Fogoros RN, Elson JJ, Bonnet CA, Fiedler SB, Burkholder JA. Efficacy of the automatic implantable defibrillator in prolonging survival in patients with severe underlying cardiac disease. *J Am Coll Cardiol*. 1990 Aug; 16(2):381-6.

73. Powell AC, Fuchs T, Finkelstein DM, Garan H, Cannom DS, McGovern BA, Kelly E, Vlahakes GJ, Torchiana DF, Ruskin JN. Influence of implantable cardioverter-defibrillators on the long term prognosis of survivors of out-of-hospital cardiac arrest. *Circulation*. 1993 Sep; 88(3):1083-92.

74. Vidal B, Sitges M, Delgado V, Mont L, Díaz-Infante E, Azqueta M, Paré C, Tolosana JM, Berrueto A, Tamborero D, Roig E, Brugada J. [Influence of cardiopathy etiology on responses to cardiac resynchronization therapy. *Rev Esp Cardiol*. 2007 Dec; 60(12):1264-71.

75. Bardy GH, Lee KL, Mark DB, Poole JE, Packer DL, Boineau R, Domanski M, Troutman C, Anderson J, Johnson G, McNulty SE, Clapp-Channing N, Davidson-Ray LD, Fraulo ES, Fishbein DP, Luceri RM, Ip JH; Sudden Cardiac Death in Heart Failure Trial (SCD-HeFT) Investigators. Amiodarone or an implantable cardioverter-defibrillator for congestive heart failure. *N Engl J Med*. 2005 Jan 20; 352(3):225-37.

76. Desai, AS, Fang, JC, Maisel, WH, Baughman, KL. Implantable defibrillators for the prevention of mortality in patients with nonischemic cardiomyopathy: a meta-analysis of randomized controlled trials. *JAMA*. 2004 Dec 15; 292(23):2874-9.

77. Wang NC; Maggioni AP; Konstam MA; Zannad F; Krasa HB; Burnett JC Jr; Grinfeld L; Swedberg K; Udelson JE; Cook T; Traver B; Zimmer C; Orlandi C; Gheorghiuade M. Clinical implications of QRS duration in patients hospitalized with worsening heart failure and reduced left ventricular ejection fraction. *JAMA*. 2008 Jun 11;299(22):2656-66.

78. Baldasseroni S; Opasich C; Gorini M; Lucici D; Marchionni N; Marini M; Campana C; Perini G; Deorsola A; Masotti G; Tavazzi L; Maggioni AP. Left bundle-branch block is associated with increased 1-year sudden and total mortality rate in 5517 outpatients with congestive heart failure: a report from the Italian network on congestive heart failure. *Am Heart J* 2002 Mar; 143(3):398-405.

79. Grines CL, Bashore TM, Boudoulas H, Olson S, Shafer P, Wooley CF. Functional abnormalities in isolated left bundle branch block. The effect of interventricular asynchrony. *Circulation*. 1989 Apr; 79(4):845-53.
80. Sweeney MO, Hellkamp AS, Ellenbogen KA, Greenspon AJ, Freedman RA, Lee KL, Lamas GA; MODe Selection Trial Investigators. Adverse effect of ventricular pacing on heart failure and atrial fibrillation among patients with normal baseline QRS duration in a clinical trial of pacemaker therapy for sinus node dysfunction. *Circulation*. 2003 Jun 17; 107(23):2932-7.
81. Tabrizi F; Englund A; Rosenqvist M; Wallentin L; Stenstrand U. Influence of left bundle branch block on long-term mortality in a population with heart failure. *Eur Heart J*. 2007 Oct; 28(20):2449-55.
82. De Teresa E, Chamorro JL, Pulpon LA, Ruiz C, Bailon IR, Alzueta J. An even more physiological pacing: changing the sequence of ventricular activation. En: Steinbach K, Glogar D, Laszkovics A et al., Eitores. *Cardiac Pacing. Proceedings of the VIIIth World Symposium on Cardiac Pacing*. Darnstadt: Steinkopff Verlag; 1983. P395-400.
83. De Teresa E, Alzueta J, Cabrera-Bueno F. Resincronización cardíaca ¿cuáles son las perspectivas de futuro? *Cardiocyte* 2010.doi:10.1016/j.carcor.2009.12.008.
84. Auricchio, A, Abraham, WT. Cardiac resynchronization therapy: current state of the art: cost versus benefit. *Circulation*. 2004 Jan 27; 109(3):300-7.
85. Jarcho, JA. Resynchronizing ventricular contraction in heart failure. *N Engl J Med*. 2005 Apr 14; 352(15):1594-7.
86. Burkhardt, JD, Wilkoff, BL. Interventional electrophysiology and cardiac resynchronization therapy: delivering electrical therapies for heart failure. *Circulation*. 2007 Apr 24; 115(16):2208-20.
87. Chakir K, Daya SK, Tunin RS, Helm RH, Byrne MJ, Dimaano VL, Lardo AC, Abraham TP, Tomaselli GF, Kass DA. Reversal of global apoptosis and regional stress kinase activation by cardiac resynchronization. *Circulation*. 2008 Mar 18;117(11):1369-77.
88. Cleland JG, Daubert JC, Erdmann E, Freemantle N, Gras D, Kappenberger L, Tavazzi L; Cardiac Resynchronization-Heart Failure (CARE-HF) Study Investigators. The effect of cardiac resynchronization on morbidity and mortality in heart failure. *N Engl J Med*. 2005 Apr 14; 352(15):1539-49.
89. St John Sutton MG, Plappert T, Abraham WT, Smith AL, DeLurgio DB, Leon AR, Loh E, Kocovic DZ, Fisher WG, Ellestad M, Messenger J, Kruger K, Hilpisch KE, Hill MR; Multicenter InSync Randomized Clinical Evaluation (MIRACLE) Study Group. Effect of cardiac resynchronization therapy on left ventricular size and function in chronic heart failure. *Circulation*. 2003 Apr 22; 107(15):1985-90.
90. Saxon LA, De Marco T, Schafer J, Chatterjee K, Kumar UN, Foster E; VIGOR Congestive Heart Failure Investigators. Effects of long-term biventricular stimulation for resynchronization on echocardiographic measures of remodeling. *Circulation*. 2002 Mar 19; 105(11):1304-10.
91. Higgins SL, Hummel JD, Niazi IK, Giudici MC, Worley SJ, Saxon LA, Boehmer JP, Higginbotham MB, De Marco T, Foster E, Yong PG. Cardiac resynchronization therapy for the treatment of heart failure in patients with intraventricular conduction delay and malignant ventricular tachyarrhythmias. *J Am Coll Cardiol*. 2003 Oct 15; 42(8):1454-9.
92. Stellbrink C, Breithardt OA, Franke A, Sack S, Bakker P, Auricchio A, Pochet T, Salo R, Kramer A, Spinelli J; PATH-CHF (Pacing Therapies in Congestive Heart Failure) Investigators; CPI Guidant Congestive Heart Failure Research Group. Impact of cardiac resynchronization therapy using hemodynamically optimized pacing on left ventricular remodeling in patients with congestive heart failure and ventricular conduction disturbances. *J Am Coll Cardiol*. 2001 Dec; 38(7):1957-65.
93. Yu CM, Bleeker GB, Fung JW, Schalij MJ, Zhang Q, van der Wall EE, Chan YS, Kong SL, Bax JJ. Left ventricular reverse remodeling but not clinical improvement predicts long-term survival after cardiac resynchronization therapy. *Circulation*. 2005 Sep 13; 112(11):1580-6.

94. Kass DA, Chen CH, Curry C, Talbot M, Berger R, Fetits B, Nevo E. Improved left ventricular mechanics from acute vdd pacing in patients with dilated cardiomyopathy and ventricular conduction delay. *Circulation*. 1999 Mar 30; 99(12):1567-73.
95. Aranda JM Jr, Woo GW, Conti JB, Schofield RS, Conti CR, Hill JA. Use of cardiac resynchronization therapy to optimize beta-blocker therapy in patients with heart failure and prolonged QRS duration. *Am J Cardiol*. 2005 Apr 1; 95(7):889-91.
96. Waggoner AD, Faddis MN, Gleva MJ, de las Fuentes L, Dávila-Román VG. Improvements in left ventricular diastolic function after cardiac resynchronization therapy are coupled to response in systolic performance. *J Am Coll Cardiol*. 2005 Dec 20; 46(12):2244-9.
97. Fantoni C, Raffa S, Regoli F, Giraldi F, La Rovere MT, Prentice J, Pastori F, Fratini S, Salerno-Uriarte JA, Klein HU, Auricchio A. Cardiac resynchronization therapy improves heart rate profile and heart rate variability of patients with moderate to severe heart failure. *J Am Coll Cardiol*. 2005 Nov 15; 46(10):1875-82.
98. Young JB, Abraham WT, Smith AL, Leon AR, Lieberman R, Walkover B, Canby RC, Schroeder JS, Liem LB, Hall S, Wheelan K; Multicenter InSync ICD Randomized Clinical Evaluation (MIRACLE ICD) Trial Investigators. Combined cardiac resynchronization and implantable cardioversion defibrillation in advanced chronic heart failure: the MIRACLE ICD Trial. *JAMA*. 2003 May 28; 289(20):2685-94.
99. Hoppe UC, Casares JM, Eiskjaer H, Hagemann A, Cleland JG, Freemantle N, Erdmann E. Effect of cardiac resynchronization on the incidence of atrial fibrillation in patients with severe heart failure. *Circulation*. 2006 Jul 4; 114(1):18-25.
100. Saxon LA; Bristow MR; Boehmer J; Krueger S; Kass DA; De Marco T; Carson P; DiCarlo L; Feldman AM; Galle E; Ecklund F. Predictors of sudden cardiac death and appropriate shock in the Comparison of Medical Therapy, Pacing, and Defibrillation in Heart Failure (COMPANION) Trial. *Circulation*. 2006 Dec 19; 114(25):2766-72.
101. Dickstein K, Bogale N, Priori S, Auricchio A, Cleland JG, Gitt A, Limbourg T, Linde C, van Veldhuisen DJ, Brugada J. The European cardiac resynchronization therapy survey. *Eur Heart J*. 2009 Oct; 30(20):2450-60.
102. Burri A, Senouf D. Remote monitoring and follow-up of pacemakers and implantable cardioverter defibrillators *Europace* (2009) 11(6): 701-709.
103. Linde C, Abraham WT, Gold MR, St John Sutton M, Ghio S, Daubert C, REVERSE (REsynchronization reVERses Remodeling in Systolic left vEntricular dysfunction) Study Group. Randomized trial of cardiac resynchronization in mildly symptomatic heart failure patients and in asymptomatic patients with left ventricular dysfunction and previous heart failure symptoms. *J Am Coll Cardiol*. 2008 Dec 2; 52(23):1834-43.
104. Cabrera-Bueno F, Peña-Hernández J, Fernández-Pastor J, et al. Benefits of Cardiac Resynchronization Therapy in Patients With Atrial Fibrillation Who Have Not Undergone Atrioventricular Node Ablation. *Rev Esp Cardiol* 2008; 61(4): 422-5.
105. Saxon, LA. Does cardiac resynchronization therapy reduce the incidence of atrial fibrillation, and does atrial fibrillation compromise the cardiac resynchronization therapy effect? *Heart Rhythm*. 2007 Mar; 4(3 Suppl):S31-3.
106. Hoppe UC; Casares JM; Eiskjaer H; Hagemann A; Cleland JG; Freemantle N; Erdmann E. Effect of cardiac resynchronization on the incidence of atrial fibrillation in patients with severe heart failure. *Circulation* 2006 Jul 4; 114(1):18-25.
107. Vázquez R, Azpitarte J, Calderón E, Infantes C, Mora JA, Pavón J, Pérez-Montaut I, Reina A, Rodríguez P, Rosell F, Sánchez A, Valencia A. IAM con elevación del ST: proceso asistencial integrado. Sevilla, Consejería de Salud, 2002. ISBN 84-8486-066-3.
108. O'Connor CM, Whellan DJ, Lee KL, Keteyian SJ, Cooper LS, Ellis SJ, Leifer ES, Kraus WE, Kitzman DW, Blumenthal JA, Rendall DS, Miller NH, Fleg JL, Schulman KA, McKelvie RS, Zannad F, Pina IL: Efficacy and safety of exercise training in patients with chronic heart failure: HF-ACTION



randomized controlled trial. *JAMA* 2009 Apr 8; 301(14):1439-50.

109. Piepoli MF, Corrà U, Benzer W, Bjarnason-Wehrens B, Dendale P, Gaita D, McGee H, Mendes M, Niebauer J, Zwisler AD, Schmid JP. Secondary prevention through cardiac rehabilitation: from knowledge to implementation. A position paper from the Cardiac Rehabilitation Section of the European Association of Cardiovascular Prevention and Rehabilitation. *European Journal of Cardiovascular Prevention and Rehabilitation* 2010 Feb; 17(1):1-17.

110. European Study Group on Diastolic Heart Failure. How to diagnose Diastolic Heart Failure. *Eur. Heart J.* 1998; 19(7):990-1003.

111. Anguita Sánchez M, Ojeda Pineda S. Tratamiento médico de la insuficiencia cardíaca por disfunción diastólica. *Rev Esp Cardiol Supl.* 2006; 6:53F-8F.

112. García MJ. Diagnóstico y guía terapéutica de la insuficiencia cardíaca diastólica. *Rev Esp Cardiol* 2003; 56(4):396-406.

113. Kitzman DW; Little WC; Brubaker PH; Anderson RT; Hundey WG; Marburger CT et al. Pathophysiological characterization of isolated diastolic heart failure in comparison to systolic heart failure. *JAMA* 2002 Nov 6; 288(17):2144-50.

114. Oh, JK, Hatle, L, Tajik, AJ, Little, WC. Diastolic heart failure can be diagnosed by comprehensive two-dimensional and Doppler echocardiography. *J Am Coll Cardiol* 2006; 47(3):500.

115. Kuznetsova et al LV. Diastolic Function in a General Population. *Circ Heart Fail.* 2009; 2:105-112.

116. Vasan RS, Larson MG, Benjamin EJ, Evans JC, Reiss CK, Levy D. Congestive heart failure in subjects with normal versus reduced left ventricular ejection fraction: prevalence and mortality in a population-based cohort. *J Am Coll Cardiol.* 1999 Jun; 33(7):1948-55.

117. Paulus, WJ, Tschope, C, Sanderson, JE, Rusconi C, Flachskampf FA, Rademakers FE. How to diagnose diastolic heart failure: a consensus state-

ment on the diagnosis of heart failure with normal left ventricular ejection fraction by the Heart Failure and Echocardiography Associations of the European Society of Cardiology. *Eur Heart J* 2007 Oct; 28(20):2539- 2550.

118. Castro Beiras A, Barge Caballero E. Concepto y pronóstico de insuficiencia cardíaca con fracción de eyección normal. *Rev Esp Cardiol Supl.* 2006; 6:9F-14F.

119. Zile, MR, Brutsaert, DL. New concepts in diastolic dysfunction and diastolic heart failure: Part II: causal mechanisms and treatment. *Circulation* 2002; 105(12):1503.

120. Wang J, Nagueh SF. Current Perspectives on Cardiac Function in Patients With Diastolic Heart Failure. *Circulation.* 2009 Mar 3;119(8):1146-57.

121. Grigorian Shamagian L, Gonzalez-Juanatey JR, Roman AV, Acuña JM, Lamela AV. The death rate among hospitalized heart failure patients with normal and depressed left ventricular ejection fraction in the year following discharge: evolution over a 10-year period. *Eur Heart J.* 2005; 26 (21):2251-8.

122. Dickstein K, Vardas PE, Auricchio A, Daubert JC, Linde C, McMurray J, Ponikowski P, Priori SG, Sutton R, van Veldhuisen DJ; ESC Committee for Practice Guidelines (CPG), Vahanian A, Auricchio A, Bax J, Ceconi C, Dean V, Filippatos G, Funck-Brentano C, Hobbs R, Kearney P, McDonagh T, Popescu BA, Reiner Z, Sechtem U, Sirnes PA, Tendera M, Vardas P, Widimsky P; Document Reviewers, Tendera M, Anker SD, Blanc JJ, Gasparini M, Hoes AW, Israel CW, Kalarus Z, Merkely B, Swedberg K, Camm AJ. 2010 Focused Update of ESC Guidelines on device therapy in heart failure: an update of the 2008 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure and the 2007 ESC guidelines for cardiac and resynchronization therapy. Developed with the special contribution of the Heart Failure Association and the European Heart Rhythm Association. *Eur Heart J.* 2010 Nov;31(21):2677-87. Epub 2010 Aug 27.

123. Bhatia RS, Tu JV, Lee DS, Austin PC, Fang J, Haouzi A, Gong Y, Liu PP. Outcome of heart failure with preserved ejection fraction in a population-based study. *N Engl J Med* 2006;355:260-269.

124. Owan TE, Hodge DO, Herges RM, Jacobsen SJ, Roger VL, Redfield MM. Trends in prevalence and outcome of heart failure with preserved ejection fraction. *N Engl J Med* 2006;355:251–259.
125. Yusuf S, Pfeffer MA, Swedberg K, Granger CB, Held P, McMurray JJ, Michelson EL, Olofsson B, Ostergren J; CHARM Investigators and Committees. *Lancet*. 2003 362(9386):777-81.
126. Nagueh SF, Appleton CP, Gillebert TC, Marino PN, Oh JK, Smiseth OA, Waggoner AD, Flachskampf FA, Pellikka PA, Evangelista A. Recommendations for the evaluation of left ventricular diastolic function by echocardiography. *J Am Soc Echocardiogr*. 2009 Feb;22(2):107-33.
127. Tschope C; Kasner M; Westermann D; Gaub R, Poller WC, Schultheiss HP. The role of NT-pro-BNP in the diagnostics of isolated diastolic dysfunction: correlation with echocardiographic and invasive measurements. *Eur Heart J* 2005 Nov; 26(21):2277-84.
128. Aurigemma GP, Gaasch WH. Diastolic Heart Failure. *New England Journal of Medicine*, September 2004; 351(11): 1097–1105.
129. Hernandez AF, Hammill BG, O'Connor CM, Schulman KA, Curtis LH, Fonarow GC. Clinical effectiveness of beta-blockers in heart failure findings from the optimize-hf (organized program to initiate lifesaving treatment in hospitalized patients with heart failure) registry. *J Am Coll Cardiol*. 2009;53(2):184-192.
130. Yusuf S, Pfeffer MA, Swedberg K, Granger CB, Held P, McMurray JJ, et al for the CHARM investigators and committees. Effects of candesartan in patients with chronic heart failure and preserved left-ventricular ejection fraction: the CHARM-Preserved Trial. *Lancet* 2003; 362(9386): 777-81.
131. Flather MD, Shibata MC, Coats AJS, Van Veldhuisen DJ, Parkhomenko A, Borbola J, et al. Randomized Trial to determine the effect of nebivolol on mortality and cardiovascular hospital admission in elderly patients with heart failure (SENIORS). *Eur Heart J* 2005 Feb; 26(3): 215-25.
132. Pennell DJ, Sechtem UP, Higgins CB, Manning WJ, Pohost GM, Rademakers FE, et al. Clinical indications for cardiovascular magnetic resonance (CMR): Consensus Panel report. *J Cardiovasc Magn Reson*. 2004; 6(4):727-65.
133. Hendel RC, Patel MR, Kramer CM, Poon M, Hendel RC, Carr JC, et al. ACCF/ACR/SCCT/SCMR/ASNC/NASCI/SCAI/SIR 2006 appropriateness criteria for cardiac computed tomography and cardiac magnetic resonance imaging: a report of the American College of Cardiology Foundation Quality Strategic Directions Committee Appropriateness Criteria Working Group, American College of Radiology, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, American Society of Nuclear Cardiology, North American Society for Cardiac Imaging, Society for Cardiovascular Angiography and Interventions, and Society of Interventional Radiology. *J Am Coll Cardiol*. 2006 Oct 3;48(7):1475-97.
134. White JA, Patel MR. The Role of Cardiovascular MRI in Heart Failure and the Cardiomyopathies. *Cardiol Clin* 2007 Feb; 25(1):71-95.
135. Pennell DJ. Cardiovascular Magnetic Resonance. *Circulation*. 2010 Feb 9; 121(5):692-705.
136. McCrohon JA, Moon JC, Prasad SK, McKenna WJ, Lorenz CH, Coats AJ, Pennell DJ. Differentiation of heart failure related to dilated cardiomyopathy and coronary artery disease using gadolinium-enhanced cardiovascular magnetic resonance. *Circulation*. 2003 Jul 8; 108(1):54-9.
137. Cho JR, Park S, Choi BW, Kang SM, Ha JW, Chung N, Choe KO, Cho SY, Rim SJ. Delayed Enhancement Magnetic Resonance Imaging is a Significant Prognostic Factor in Patients With Non-Ischemic Cardiomyopathy. *Circ J*. 2010 Mar; 74(3):476-83.
138. Wu KC, Weiss RG, Thiemann DR, Kitagawa K, Schmidt A, Dalal D, et al. Late gadolinium enhancement by cardiovascular magnetic resonance heralds an adverse prognosis in nonischemic cardiomyopathy. *J Am Coll Cardiol*. 2008 Jun 24;51(25):2414-21.
139. Assomull RG, Prasad SK, Lyne J, Smith G, Burman ED, Khan M, Sheppard MN, Poole-Wilson PA, Pennell DJ. Cardiovascular magnetic resonance, fibrosis, and prognosis in dilated

cardiomyopathy. *J Am Coll Cardiol*. 2006 Nov 21; 48(10):1977-85.

140. Chalil S, Stegemann B, Muhyaldeen SA, Khadjooi K, Foley PW, Smith RE, Leyva F. Effect of posterolateral left ventricular scar on mortality and morbidity following cardiac resynchronization therapy. *Pacing Clin Electrophysiol*. 2007 Oct; 30(10):1201-9.

141. White JA, Yee R, Yuan X, Krahn A, Skanes A, Parker M, Klein G, Drangova M. Delayed enhancement magnetic resonance imaging predicts response to cardiac resynchronization therapy in patients with intraventricular dyssynchrony. *J Am Coll Cardiol*. 2006 Nov 21; 48(10):1953-60.

142. Bilchick KC, Dimaano V, Wu KC, Helm RH, Weiss RG, Lima JA, Berger RD, Tomaselli GF, Bluemke DA, Halperin HR, Abraham T, Kass DA, Lardo AC. Cardiac magnetic resonance assessment of dyssynchrony and myocardial scar predicts function class improvement following cardiac resynchronization therapy. *JACC Cardiovasc Imaging*. 2008 Sep; 1(5):561-8.

143. Bluemke DA, Achenbach S, Budoff M, Gerber TC, Gersh B, Hillis LD, Hundley WG, Manning WJ, Printz BF, Stuber M, Woodard PK. Noninvasive coronary artery imaging: magnetic resonance angiography and multidetector computed tomography angiography: a scientific statement from the American Heart Association Committee on Cardiovascular Imaging and Intervention of the Council on Cardiovascular Radiology and Intervention, and the Councils on Clinical Cardiology and Cardiovascular Disease in the Young. *Circulation*. 2008 Jul 29; 118(5):586-606.

144. Schuetz GM, Zacharopoulou NM, Schlattmann P, Dewey M. Meta-analysis: noninvasive coronary angiography using computed tomography versus magnetic resonance imaging. *Ann Intern Med*. 2010 Feb 2; 152(3):167-77.

145. Swedberg K, Cleland J, Dargie H, Drexler H, Follath F, Komajda M, et al. Guidelines for the diagnosis and treatment of chronic heart failure: executive summary (update 2005): The Task Force for the Diagnosis and Treatment of Chronic Heart Failure of the European Society of Cardiology. *Rev Esp Cardiol*. 2005 Sep; 58(9):1062-92.

146. Schinkel AF, Poldermans D, Elhendy A, Bax JJ. Assessment of myocardial viability in patients with heart failure. *J Nucl Med*. 2007 Jul; 48(7):1135-46.

147. Albertí JF, de Diego JJ, Delgado RV, Riera JC, Torres RA. State of the art: new developments in cardiac imaging. *Rev Esp Cardiol*. 2012 Jan; 65 Suppl 1:24-34.

148. Vahanian A, Baumgartner H, Bax J, Butchart E, Dion R, Filippatos G, et al; Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology; ESC Committee for Practice Guidelines. Guidelines on the management of valvular heart disease: The Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology. *Eur Heart J*. 2007 Jan; 28(2):230-68. Epub 2007 Jan 26.

149. Velazquez EJ, Lee KL, Deja MA, Jain A, Sopko G, Marchenko A, Ali IS, Pohost G, Gradinar S, Abraham WT, Yii M, Prabhakaran D, Szwed H, Ferrazzi P, Petrie MC, O'Connor CM, Panchavinnin P, She L, Bonow RO, Rankin GR, Jones RH, Rouleau JL; STICH Investigators. Coronary-artery bypass surgery in patients with left ventricular dysfunction. *N Engl J Med*. 2011 Apr 28; 364(17):1607-16.

150. Grady KL. Quality of life in patients with chronic heart failure. *Crit Care Nurs Clin North Am*. 1993; 5:661-70.

151. Hobbs FD, Kenkre JE, Roalke AK, Davis RC, Hare R, Davies MK. Impact of heart failure and left ventricular systolic dysfunction on quality of life: a cross-sectional study comparing common chronic cardiac and medical disorders and a representative adult population. *Eur Heart J*. 2002; 23(23):1867-76.

152. Morales Asensio, JM. "Efectividad de los modelos alternativos de atención para los pacientes con insuficiencia cardiaca: Revisión Sistemática. 2004). Biblioteca Lascasas 2005, 1(1).

153. Rich MW, Beckham V, Wittenberg C et al. A multidisciplinary intervention to prevent the readmission of elderly patients with congestive heart failure. *N Engl J Med*. 1995; 333: 1190-1195.

154. Blue L, Lang E, McMurray JJ, Davie AP, McDonagh TA, Murdoch DR, Petrie MC, Connolly E,

Norrie J, Round CE, Ford I, Morrison CE. et al. Randomised controlled trial of specialist nurse intervention in heart failure. *BMJ*. 323; 2001: 715-718.

155. British Heart Foundation. Nurse-led, home-based management of chronic heart failure. 2002, (disponible en [http://www.hyp.ac.uk/bhs/bhf\\_factfiles/bhf\\_factfile\\_september\\_2002.pdf](http://www.hyp.ac.uk/bhs/bhf_factfiles/bhf_factfile_september_2002.pdf)).

156. Raval AN, Marchiori GE, Arnold JM. Improving the continuity of care following discharge of patients hospitalized with heart failure: is the discharge summary adequate? *Can J Cardiol*. 2003; 19(4):365-70.

157. Miranda MB, Gorski LA, LeFevre JG, Levac KA, Niederstadt JA, Toy AL. An evidence-based approach to improving care of patients with heart failure across the continuum. *J Nurs Care Qual*. 2002; 17(1):1-14.

158. Moorhead S, Johnson M, Maas ML, Swanson E. Clasificación de resultados de enfermería (CRE). 4ª ed. Madrid: Elsevier; 2009.

159. North American Nursing Diagnosis Association. Diagnósticos Enfermeros: Definiciones y Clasificación 2009-2011. Madrid: Ediciones Elsevier; 2010.

160. Bulechek GM, Butcher HK, McCloskey JC. Clasificación de Intervenciones de Enfermería (CIE) 5ª ed. Madrid: Elsevier España; 2010.