

REFERENCES

- Goldberg RJ, Makam RC, Yarzebski J, McManus DD, Lessard D, Gore JM: Decade-long trends (2001-2011) in the incidence and hospital death rates associated with the in-hospital development of cardiogenic shock after acute myocardial infarction. *Circ Cardiovasc Qual Outcomes* 9: 117, 2016. [PMID: 26884615]
- Goldberg RJ, Spencer FA, Gore JM, Lessard D, Yarzebski J: Thirty-year trends (1975 to 2005) in the magnitude of, and hospital death rates associated with cardiogenic shock in patients with acute myocardial infarction: a population-based perspective. *Circulation* 119: 1211, 2009. [PMID: 19237658]
- Aissaoui N, Puymirat E, Tabone X, et al: Improved outcome of cardiogenic shock at the acute stage of myocardial infarction: a report from the USIK 1995, USIC 2000, and FAST-MI French nationwide registries. *Eur Heart J* 33: 2535, 2012. [PMID: 22927559]
- French JK, Armstrong PW, Cohen E, et al: Cardiogenic shock and heart failure post-percutaneous coronary intervention in ST-elevation myocardial infarction: observations from "Assessment of Pexelizumab in Acute Myocardial Infarction." *Am Heart J* 162: 89, 2011. [PMID: 21742094]
- Giglioli C, Margheri M, Valente S, et al: Timing, setting and incidence of cardiovascular complications in patients with acute myocardial infarction submitted to primary percutaneous coronary intervention. *Can J Cardiol* 22: 1047, 2006. [PMID: 17036099]
- Fox KA, Steg PG, Eagle KA, et al: Decline in rates of death and heart failure in acute coronary syndromes, 1999-2006. *JAMA* 297: 1892, 2007. [PMID: 17473299]
- Hasdai D, Harrington RA, Hochman JS, et al: Platelet glycoprotein IIb/IIIa blockade and outcome of cardiogenic shock complicating acute coronary syndromes without persistent ST-segment elevation. *J Am Coll Cardiol* 36: 685, 2000. [PMID: 10987585]
- Kolte D, Khera S, Aronow WS, et al: Trends in incidence, management, and outcomes of cardiogenic shock complicating ST elevation myocardial infarction in the United States. *J Am Heart Assoc* 3: e000590, 2014. [PMID: 24419737]
- Menon V, White H, Lejemtel T, et al: The clinical profile of patients with suspected cardiogenic shock due to predominant left ventricular failure: a report from the SHOCK Trial Registry. Should we emergently revascularize occluded coronaries in cardiogenic shock? *J Am Coll Cardiol* 36 (3 Suppl. A): 1071, 2000. [PMID: 10985707]
- Hochman J, Sleeper LA, Webb JG, et al: Early revascularization and long-term survival in cardiogenic shock complicating acute myocardial infarction. *JAMA* 295: 2511, 2006. [PMID: 16757723]
- Le May MR, Wells GA, So DY, et al: Reduction in mortality as a result of direct transport from the field to a receiving center for primary percutaneous coronary intervention. *J Am Coll Cardiol* 60: 1223, 2012. [PMID: 23017532]
- Jacobs AK, Sleeper LA, Forman R, et al: Cardiogenic shock caused by right ventricular infarction: a report from the SHOCK registry. *J Am Coll Cardiol* 41: 1273, 2003. [PMID: 12706920]
- Dauerman HL, Goldberg RJ, White K, et al: Revascularization, stenting, and outcomes in patients with acute myocardial infarction complicated by cardiogenic shock. *Am J Cardiol* 90: 838, 2002. [PMID: 12372570]
- Reynolds HR, Hochman JS: Cardiogenic shock: current concepts and improving outcomes. *Circulation* 117: 686, 2008. [PMID: 18250279]
- Hochman JS: Cardiogenic shock complicating acute myocardial infarction: expanding the paradigm. *Circulation* 107: 2998, 2003. [PMID: 1281585]
- Prondzinsky R, Unverzagt S, Lemm H, et al: Interleukin-6, -7, -8 and -10 predict outcome in acute myocardial infarction complicated by cardiogenic shock. *Clin Res Cardiol* 101: 375, 2012. [PMID: 22212516]
- Kohsaka S, Menon V, Lowe AM, et al: Systemic inflammatory response syndrome after acute myocardial infarction complicated by cardiogenic shock. *Arch Intern Med* 165: 1643, 2005. [PMID: 16043684]
- Debrunner M, Schuiki E, Minder E, et al: Proinflammatory cytokines in acute myocardial infarction with and without cardiogenic shock. *Clin Res Cardiol* 97: 298, 2008. [PMID: 18491171]
- Thérault P, Armstrong PW, Mahaffey KW, et al: Prognostic significance of blood markers of inflammation in patients with ST-segment elevation myocardial infarction undergoing primary angioplasty and effects of pexelizumab, a C5 inhibitor: a substudy of the COMMA trial. *Eur Heart J* 26: 1964, 2005. [PMID: 15872036]
- Kohsaka S, Menon V, Lowe AM, et al: Systemic inflammatory response syndrome after acute myocardial infarction complicated by cardiogenic shock. *Arch Intern Med* 165: 1643, 2005. [PMID: 16043684]
- Sabatine MS, Morrow DA, de Lemos JA, et al: Multimarker approach to risk stratification in non-ST elevation acute coronary syndromes: simultaneous assessment of troponin I, C-reactive protein, and B-type natriuretic peptide. *Circulation* 105: 1760, 2002. [PMID: 11956114]
- van Diepen S, Vavalle JP, Newby LK, et al: The systemic inflammatory response syndrome in patients with ST-segment elevation myocardial infarction. *Crit Care Med* 41: 2080, 2013. [PMID: 23760155]
- Hochman JS, Buller CF, Sleeper LA, et al: Cardiogenic shock complicating acute myocardial infarction; etiologies, management and outcome: overall findings of the SHOCK Trial Registry. *J Am Coll Cardiol* 36: 1063, 2000. [PMID: 10985706]
- Menon V, Slater JN, White HD, et al: Acute myocardial infarction complicated by systemic hypoperfusion without hypotension; report of the SHOCK trial registry. *Am J Med* 108: 374, 2000. [PMID: 10759093]
- Kaya MG, Ozdogru I, Kalay N, et al: Plasma B-type natriuretic peptide in diagnosing inferior myocardial infarction with right ventricular involvement. *Coron Artery Dis* 19: 609, 2008. [PMID: 18971785]
- Hamon M, Agostini D, Le Page O, et al: Prognostic impact of right ventricular involvement in patients with acute myocardial infarction: meta-analysis. *Crit Care Med* 36: 2023, 2008. [PMID: 18552681]
- Forrester JS, Diamond GA, Swan HJC: Correlative classification of clinical and hemodynamic function after acute myocardial infarction. *Am J Cardiol* 39: 137, 1977. [PMID: 835473]
- Picard MH, Davidoff R, Sleeper L, et al: Echocardiographic predictors of survival and response to early revascularization in cardiogenic shock. *Circulation* 107: 279, 2003. [PMID: 12538428]
- Wimalaseena Y, Kocierz L, Strong D, et al: Lung ultrasound: a useful tool in the assessment of the dyspnoic patient in the emergency department. Fact or fiction? *Emerg Med J* 35: 258, 2018. [PMID: 28258097]
- Mihm FG, Gettinger A, Hanson CW, et al: A multicenter evaluation of a new continuous cardiac output pulmonary artery catheter system. *Crit Care Med* 26: 1346, 1998. [PMID: 9710092]
- Shah MR, Hasselblad V, Stevenson LW, et al: Impact of the pulmonary artery catheter in critically ill patients: meta-analysis of randomized clinical trials. *JAMA* 294: 1664, 2005. [PMID: 16204666]
- Pickering TG, Hall JE, Appel LJ, et al: Recommendations for blood pressure measurement in humans and experimental animals: part 1: blood pressure measurement in humans: a statement for professionals from the Subcommittee of Professional and Public Education of the American Heart Association Council on High Blood Pressure Research. *Circulation* 111: 697, 2005. [PMID: 15699287]
- Marik PE, Baram M, Vahid B: Does central venous pressure predict fluid responsiveness? A systematic review of the literature and the tale of seven mares. *Chest* 134: 172, 2008. [PMID: 18628220]
- Brodie BR, Stuckey TD, Hansen C, et al: Comparison of late survival in patients with cardiogenic shock due to right ventricular infarction versus left ventricular pump failure following primary percutaneous coronary intervention for ST-elevation acute myocardial infarction. *Am J Cardiol* 99: 431, 2007. [PMID: 17293178]
- Ortolani P, Marzocchi A, Marrozzini C, et al: Usefulness of prehospital triage in patients with cardiogenic shock complicating ST-elevation myocardial infarction treated with primary percutaneous coronary intervention. *Am J Cardiol* 100: 787, 2007. [PMID: 17719321]
- Holden D, Ramich J, Timm E, et al: Safety considerations and guideline-based safe use recommendations for "bolus-dose" vasopressors in the emergency department. *Ann Emerg Med* 71: 83, 2018. [PMID: 28601272]
- Anderson JL, Adams CD, Antman EM, et al: ACC/AHA 2007 guidelines for the management of patients with unstable angina/non-ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol* 50: e1, 2007. [PMID: 17692738]
- Parissis JT, Rafouli-Stergiou P, Stasinou V, et al: Inotropes in cardiac patients: update 2011. *Curr Opin Crit Care* 16: 432, 2010. [PMID: 20711077]
- De Backer D, Biston P, Devriendt J, et al: Comparison of dopamine and norepinephrine in the treatment of shock. *N Engl J Med* 362: 779, 2010. [PMID: 20200382]
- Cheng JM, den Uil CA, Hoeks SE, et al: Percutaneous left ventricular assist devices vs. intra-aortic balloon pump counterpulsation for treatment of cardiogenic shock: a meta-analysis of controlled trials. *Eur Heart J* 30: 2102, 2009. [PMID: 19617601]
- Levy B, Perez P, Perny J, et al: Comparison of norepinephrine-dobutamine to epinephrine for hemodynamics, lactate metabolism, and organ function variables in cardiogenic shock. A prospective, randomized pilot study. *Crit Care Med* 39: 450, 2011. [PMID: 21037469]
- Levine GN, Bates ER, Blankenship JC, et al: 2011 ACCF/AHA/SCAI guideline for percutaneous coronary intervention: executive summary: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions. *Catheter Cardiovasc Interv* 79: 453, 2012. [PMID: 22328235]
- Canadian Cardiovascular Society, American Academy of Family Physicians, American College of Cardiology, et al: 2007 focused update of the ACC/AHA 2004 guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol* 51: 210, 2008. [PMID: 18191746]
- Dzavik V, Sleeper LA, Cocke JT, et al: Early revascularization is associated with improved survival in elderly patients with acute myocardial infarction complicated by cardiogenic shock: a report from SHOCK trial. *Eur Heart J* 24: 828, 2003. [PMID: 12727150]
- Antman EM, Anbe DT, Armstrong PW, et al: ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: executive summary: a report of the ACC/AHA Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines on the Management of Patients with Acute Myocardial Infarction). *Circulation* 110: 588, 2004. [PMID: 15289388]
- Holmes DR, Bates ER, Kleiman NS, et al: Contemporary reperfusion therapy for cardiogenic shock: the GUSTO-I trial experience. The GUSTO-I Investigators. Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Coronary Arteries. *J Am Coll Cardiol* 26: 668, 1995. [PMID: 7642857]
- Topalian S, Ginsberg F, Parrillo J: Cardiogenic shock. *Crit Care Med* 36 (Suppl): S66, 2008. [PMID: 18158480]

48. Kunadian B, Vijayalakshmi K, Dunning J, et al: Should patients in cardiogenic shock undergo rescue angioplasty after failed fibrinolysis: comparison of primary versus rescue angioplasty in cardiogenic shock patients. *J Invasive Cardiol* 19: 217, 2007. [PMID: 17476036]
49. Prondzinsky R, Lemm H, Swyter M, et al: Intra-aortic balloon counterpulsation in patients with acute myocardial infarction complicated by cardiogenic shock: the prospective, randomized IABP SHOCK Trial for attenuation of multiorgan dysfunction syndrome. *Crit Care Med* 38: 152, 2010. [PMID: 19770739]
50. Unverzagt S, Machemer MT, Solms A, et al: Intra-aortic balloon pump counterpulsation (IABP) for myocardial infarction complicated by cardiogenic shock. *Cochrane Database Syst Rev* 6: CD007398, 2011. [PMID: 21735410]
51. Barron HV, Every NR, Parsons LS, et al: The use of intra-aortic balloon counterpulsation in patients with cardiogenic shock complicating acute myocardial infarction: data from the National Registry of Myocardial Infarction 2. *Am Heart J* 141: 933, 2001. [PMID: 11376306]
52. Prondzinsky R, Unverzagt S, Russ M, et al: The prospective, randomised IABP—Shock Trial: hemodynamic effects of intraaortic balloon counterpulsation in patients with acute myocardial infarction complicated by cardiogenic shock. *Shock* 37: 378, 2012. [PMID: 22266974]
53. Ramanathan K, Farkouh ME, Cosmi JE, et al: Rapid complete reversal of systemic hypoperfusion after intra-aortic balloon pump counterpulsation and survival in cardiogenic shock complicating an acute myocardial infarction. *Am Heart J* 162: 268, 2011. [PMID: 21835287]
54. Widimsky P, Budensinsky T, Vorac D, et al: Long distance transport for primary angioplasty vs immediate thrombolysis in acute myocardial infarction. Final results from the randomized multicentre trial-PRAGUE-2. *Eur Heart J* 24: 94, 2003. [PMID: 12559941]
55. Bresson D, Sibellas F, Farhat F, et al: Preliminary experience with Impella Recover® LP5.0 in nine patients with cardiogenic shock: a new circulatory support system in the intensive cardiac care unit. *Arch Cardiovasc Dis* 104: 458, 2011. [PMID: 21944148]
56. Thomas JL, Al-Ameri H, Economides C, et al: Use of a percutaneous left ventricular assist device for high-risk cardiac interventions and cardiogenic shock. *J Invasive Cardiol* 22: 360, 2010. [PMID: 20679671]
57. Tempelhof MW, Klein L, Cotts WG, et al: Clinical experience and patient outcomes associated with the TandemHeart percutaneous transseptal assist device among a heterogeneous patient population. *ASAIO J* 57: 254, 2011. [PMID: 21546824]
58. Kar B, Gregoric ID, Basra SS, et al: The percutaneous ventricular assist device in severe refractory cardiogenic shock. *J Am Coll Cardiol* 57: 688, 2011. [PMID: 20950980]
59. Seyfarth M, Sibbing D, Bauer I, et al: A randomized clinical trial to evaluate the safety and efficacy of a percutaneous left ventricular assist device versus intra-aortic balloon pumping for treatment of cardiogenic shock caused by myocardial infarction. *J Am Coll Cardiol* 52: 1584, 2008. [PMID: 19007597]
60. Cheng JM, den Uil CA, Hoeks SE, et al: Percutaneous left ventricular assist devices vs. intra-aortic balloon pump counterpulsation for treatment of cardiogenic shock: a meta-analysis of controlled trials. *Eur Heart J* 30: 2102, 2009. [PMID: 19617601]
61. Fried JA, Nair A, Takeda K: Clinical and hemodynamic effects of intra-aortic balloon pump therapy in chronic heart failure patients with cardiogenic shock. *J Heart Lung Transplant* 37: 1313, 2018. [PMID: 29678608]
62. Schmidt M, Burrell A, Roberts L, et al: Predicting survival after ECMO for refractory cardiogenic shock: the survival after veno-arterial-ECMO (SAVE)-score. *Eur Heart J* 36: 2246, 2015. [PMID: 26033984]