

Chapter 74

REFERENCES

1. Johnson D, Mayers I. Multiple organ dysfunction syndrome: a narrative review. *Can J Anaesth*. 2001;48(5):502-509.
2. Tran DD, Groeneveld AB, van der Meulen J, Nauta JJ, Strack van Schijndel RJ, Thijs LG. Age, chronic disease, sepsis, organ system failure, and mortality in a medical intensive care unit. *Crit Care Med*. 1990;18(5):474-479.
3. Pruitt BA Jr. Centennial changes in surgical care and research. *Ann Surg*. 2000;232(3):287-301.
4. Feliciano DV, Mattox KL, Moore EE. *Trauma*. 6th ed. New York, NY: McGraw-Hill Medical; 2008:xxxi.
5. Ashbaugh DG, Bigelow DB, Petty TL, Levine BE. Acute respiratory distress in adults. *Lancet*. 1967;2(7511):319-323.
6. Baue AE. Multiple, progressive, or sequential systems failure. A syndrome of the 1970s. *Arch Surg*. 1975;110(7):779-781.
7. Baue AE. Multiple organ failure, multiple organ dysfunction syndrome, and systemic inflammatory response syndrome. Why no magic bullets? *Arch Surg*. 1997;132(7):703-707.
8. Bone RC, Balk RA, Cerra FB, et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. The ACCP/SCCM Consensus Conference Committee. American College of Chest Physicians/Society of Critical Care Medicine. *Chest*. 1992;101(6):1644-1655.
9. Eiseman B, Beart R, Norton L. Multiple organ failure. *Surg Gynecol Obstet*. 1977;144(3):323-326.
10. Fry DE, Pearlstein L, Fulton RL, Polk HC Jr. Multiple system organ failure. The role of uncontrolled infection. *Arch Surg*. 1980;115(2):136-140.
11. Levy MM, Fink MP, Marshall JC, et al. 2001 SCCM/ESICM/ACCP/ATS/SIS International Sepsis Definitions Conference. *Crit Care Med*. 2003;31(4):1250-1256.
12. Knaus WA, Draper EA, Wagner DP, Zimmerman JE. APACHE II: a severity of disease classification system. *Crit Care Med*. 1985;13(10):818-829.
13. Knaus WA, Wagner DP, Draper EA, et al. The APACHE III prognostic system. Risk prediction of hospital mortality for critically ill hospitalized adults. *Chest*. 1991;100(6):1619-1636.
14. Vincent JL, Moreno R, Takala J, et al. The SOFA (Sepsis-related Organ Failure Assessment) score to describe organ dysfunction/failure. On behalf of the Working Group on Sepsis-Related Problems of the European Society of Intensive Care Medicine. *Intensive Care Med*. 1996;22(7):707-710.
15. Marshall JC, Cook DJ, Christou NV, Bernard GR, Sprung CL, Sibbald WJ. Multiple organ dysfunction score: a reliable descriptor of a complex clinical outcome. *Crit Care Med*. 1995;23(10):1638-1652.
16. Martin CM, Hill AD, Burns K, Chen LM. Characteristics and outcomes for critically ill patients with prolonged intensive care unit stays. *Crit Care Med*. 2005;33(9):1922-1927; quiz 1936.
17. Fry DE. Multiple system organ failure. *Surg Clin North Am*. 1988;68(1):107-122.
18. Beal AL, Cerra FB. Multiple organ failure syndrome in the 1990s. Systemic inflammatory response and organ dysfunction. *JAMA*. 1994;271(3):226-233.
19. Zimmerman JE, Knaus WA, Wagner DP, Sun X, Hakim RB, Nystrom PO. A comparison of risks and outcomes for patients with organ system failure: 1982-1990. *Crit Care Med*. 1996;24(10):1633-1641.
20. Knaus WA, Draper EA, Wagner DP, Zimmerman JE. Prognosis in acute organ-system failure. *Ann Surg*. 1985;202(6):685-693.
21. Tran DD, Cuesta MA, van Leeuwen PA, Nauta JJ, Wesdorp RI. Risk factors for multiple organ system failure and death in critically injured patients. *Surgery*. 1993;114(1):21-30.
22. Annane D, Bellissant E, Cavaillon JM. Septic shock. *Lancet*. 2005;365(9453):63-78.
23. Durham RM, Moran JJ, Mazuski JE, Shapiro MJ, Baue AE, Flint LM. Multiple organ failure in trauma patients. *J Trauma*. 2003;55(4):608-616.
24. Deitch EA. Multiple organ failure. Pathophysiology and potential future therapy. *Ann Surg*. 1992;216(2):117-134.
25. Zimmerman JE, Knaus WA, Sun X, Wagner DP. Severity stratification and outcome prediction for multisystem organ failure and dysfunction. *World J Surg*. 1996;20(4):401-405.
26. Faist E, Baue AE, Dittmer H, Heberer G. Multiple organ failure in polytrauma patients. *J Trauma*. 1983;23(9):775-787.
27. Pine RW, Wertz MJ, Lennard ES, et al. Determinants of organ malfunction or death in patients with intra-abdominal sepsis. A discriminant analysis. *Arch Surg*. 1983;118(2):242-249.
28. de Mendonça A, Vincent JL, Suter PM, et al. Acute renal failure in the ICU: risk factors and outcome evaluated by the SOFA score. *Intensive Care Med*. 2000;26(7):915-921.
29. Livingston DH, Deitch EA. Multiple organ failure: a common problem in surgical intensive care unit patients. *Ann Med*. 1995;27(1):13-20.
30. Pinsky MR. Pathophysiology and therapy of end-organ failure in critical illness. *Proc Assoc Am Physicians*. 1995;107(3):353-360.

31. McGill SN, Ahmed NA, Christou NV. Endothelial cells: role in infection and inflammation. *World J Surg.* 1998;22(2):171-178.
32. Reinhart K, Bayer O, Brunkhorst F, Meisner M. Markers of endothelial damage in organ dysfunction and sepsis. *Crit Care Med.* 2002;30(5 Suppl):S302-S312.
33. Ruan QR, Zhang WJ, Hufnagl P, Kaun C, Binder BR, Wojta J. Anisodamine counteracts lipopolysaccharide-induced tissue factor and plasminogen activator inhibitor-1 expression in human endothelial cells: contribution of the NF-kappa b pathway. *J Vasc Res.* 2001;38(1):13-19.
34. Doshi SN, Marmur JD. Evolving role of tissue factor and its pathway inhibitor. *Crit Care Med.* 2002;30(5 Suppl):S241-S250.
35. Matthay MA. Severe sepsis—a new treatment with both anti-coagulant and antiinflammatory properties. *N Engl J Med.* 2001;344(10):759-762.
36. Bernard GR, Vincent JL, Laterre PF, et al. Efficacy and safety of recombinant human activated protein C for severe sepsis. *N Engl J Med.* 2001;344(10):699-709.
37. Deitch EA, Winterton J, Li M, Berg R. The gut as a portal of entry for bacteremia. Role of protein malnutrition. *Ann Surg.* 1987;205(6):681-692.
38. Fine J, Palmerio C, Rutenburg S. New developments in therapy of refractory traumatic shock. *Arch Surg.* 1968;96(2):163-175.
39. Brathwaite CE, Ross SE, Nagele R, Mure AJ, O'Malley KF, Garc'a-Perez FA. Bacterial translocation occurs in humans after traumatic injury: evidence using immunofluorescence. *J Trauma.* 1993;34(4):586-589; discussion 589-590.
40. Moore FA, Moore EE, Poggetti R, et al. Gut bacterial translocation via the portal vein: a clinical perspective with major torso trauma. *J Trauma.* 1991;31(5):629-636; discussion 636-638.
41. Moore FA, Sauaia A, Moore EE, Haanel JB, Burch JM, Lezotte DC. Postinjury multiple organ failure: a bimodal phenomenon. *J Trauma.* 1996;40(4):501-510; discussion 510-512.
42. Bernard GR, Artigas A, Brigham KL, et al. The American-European Consensus Conference on ARDS. Definitions, mechanisms, relevant outcomes, and clinical trial coordination. *Am J Respir Crit Care Med.* 1994;149(3 Pt 1):818-824.
43. Hudson LD, Milberg JA, Anardi D, Maunder RJ. Clinical risks for development of the acute respiratory distress syndrome. *Am J Respir Crit Care Med.* 1995;151(2 Pt 1):293-301.
44. Hyers TM. Prediction of survival and mortality in patients with adult respiratory distress syndrome. *New Horiz.* 1993;1(4):466-470.
45. Luce JM. Acute lung injury and the acute respiratory distress syndrome. *Crit Care Med.* 1998;26(2):369-376.
46. Fein AM, Lippmann M, Holtzman H, Eliraz A, Goldberg SK. The risk factors, incidence, and prognosis of ARDS following septicemia. *Chest.* 1983;83(1):40-42.
47. Ciesla DJ, Moore EE, Johnson JL, Burch JM, Cothren CC, Sauaia A. The role of the lung in postinjury multiple organ failure. *Surgery.* 2005;138(4):749-757; discussion 757-758.
48. Cariou A, Vinsonneau C, Dhainaut JF. Adjunctive therapies in sepsis: an evidence-based review. *Crit Care Med.* 2004;32(11 Suppl):S562-S570.
49. Uchino S, Bellomo R, Goldsmith D, Bates S, Ronco C. An assessment of the RIFLE criteria for acute renal failure in hospitalized patients. *Crit Care Med.* 2006;34(7):1913-1917.
50. Perez Valdivieso JR, Bes-Rastrollo M, Monedero P, De Irala J, Lavilla FJ. Evaluation of the prognostic value of the risk, injury, failure, loss and end-stage renal failure (RIFLE) criteria for acute kidney injury. *Nephrology (Carlton).* 2008;13(5):361-366.
51. Arabi Y, Ahmed QA, Haddad S, Aljumah A, Al-Shimemeri A. Outcome predictors of cirrhosis patients admitted to the intensive care unit. *Eur J Gastroenterol Hepatol.* 2004;16(3):333-339.
52. Gill RQ, Sterling RK. Acute liver failure. *J Clin Gastroenterol.* 2001;33(3):191-198.
53. Schneider RC, Zapol WM, Carvalho AC. Platelet consumption and sequestration in severe acute respiratory failure. *Am Rev Respir Dis.* 1980;122(3):445-451.
54. Comunale ME, Van Cott EM. Heparin-induced thrombocytopenia. *Int Anesthesiol Clin.* 2004;42(3):27-43.
55. Di Nisio M, Middeldorp S, Büller HR. Direct thrombin inhibitors. *N Engl J Med.* 2005;353(10):1028-1040.
56. Kreger BE, Craven DE, McCabe WR. Gram-negative bacteremia. IV. Re-evaluation of clinical features and treatment in 612 patients. *Am J Med.* 1980;68(3):344-355.
57. Bolton CF. Neuromuscular complications of sepsis. *Intensive Care Med.* 1993;19(Suppl 2):S58-S63.
58. Lacomis D, Giuliani MJ, Van Cott A, Kramer DJ. Acute myopathy of intensive care: clinical, electromyographic, and pathological aspects. *Ann Neurol.* 1996;40(4):645-654.
59. Bolton CF. Sepsis and the systemic inflammatory response syndrome: neuromuscular manifestations. *Crit Care Med.* 1996;24(8):1408-1416.
60. Robinson BR, Mueller EW, Henson K, Branson RD, Barsoum S, Tsuei BJ. An analgesia-delirium-sedation protocol for critically ill trauma patients reduces ventilator days and hospital length of stay. *J Trauma.* 2008;65:517-526.
61. Kress JP, Pohlman AS, O'Connor MF, Hall JB. Daily interruption of sedative infusions in critically ill patients undergoing mechanical ventilation. *N Engl J Med.* 2000;342(20):1471-1477.
62. Jacobi J, Fraser GL, Coursin DB, et al. Clinical practice guidelines for the sustained use of sedatives and analgesics in the critically ill adult. *Crit Care Med.* 2002;30(1):119-141.
63. Pandharipande PP, Pun BT, Herr DL, et al. Effect of sedation with dexmedetomidine vs lorazepam on acute brain dysfunction in mechanically ventilated patients: the MENDS randomized controlled trial. *JAMA.* 2007;298(22):2644-2653.
64. Mirski MA, Lewin JJ 3rd, Ledroux S, et al. Cognitive improvement during continuous sedation in critically ill, awake and responsive patients: the Acute Neurological ICU Sedation Trial (ANIST). *Intensive Care Med.* 2010;36(9):1501-1513.
65. Riker RR, Shehabi Y, Bokesch PM, et al. Dexmedetomidine vs midazolam for sedation of critically ill patients: a randomized trial. *JAMA.* 2009;301(5):489-499.
66. NICE-SUGAR Study Investigators, Finfer S, Chittock DR, et al. Intensive versus conventional glucose control in critically ill patients. *N Engl J Med.* 2009;360(13):1283-1297.
67. Cooper MS, Stewart PM. Corticosteroid insufficiency in acutely ill patients. *N Engl J Med.* 2003;348(8):727-734.
68. Sprung CL, Annane D, Keh D. Hydrocortisone therapy for patients with septic shock. *N Engl J Med.* 2008;358(2):111-124.
69. Dellinger RP, Levy MM, Carlet JM. Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock: 2008. *Intensive Care Med.* 2008;34(1):17-60.
70. Marik PE, Zaloga GP. Early enteral nutrition in acutely ill patients: a systematic review. *Crit Care Med.* 2001;29(12):2264-2270.
71. McClave SA, Martindale RG, Vanek VW, et al. Guidelines for the Provision and Assessment of Nutrition Support Therapy in the Adult Critically Ill Patient: Society of Critical Care

- Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.). *JPEN J Parenter Enteral Nutr.* 2009;33(3):277-316.
72. Hutchins K, Karras G, Erwin J, Sullivan KL. Ventilator-associated pneumonia and oral care: a successful quality improvement project. *Am J Infect Control.* 2009;37(7):590-597.
 73. Watson SR, George C, Martin M, Bogan B, Goeschel C, Pronovost PJ. Preventing central line-associated bloodstream infections and improving safety culture: a statewide experience. *Jt Comm J Qual Patient Saf.* 2009;35(12):593-597.
 74. Hotchkiss RS, Karl IE. The pathophysiology and treatment of sepsis. *N Engl J Med.* 2003;348(2):138-150.
 75. Dugernier T, Reynaert M, Laterre PF. Early multi-system organ failure associated with acute pancreatitis: a plea for a conservative therapeutic strategy. *Acta Gastroenterol Belg.* 2003;66(2):177-183.
 76. Hollenberg SM, Ahrens TS, Annane D, et al. Practice parameters for hemodynamic support of sepsis in adult patients: 2004 update. *Crit Care Med.* 2004;32(9):1928-1948.
 77. Marik PE, Cavallazzi R, Vasu T, Dynamic changes in arterial waveform derived variables and fluid responsiveness in mechanically ventilated patients: a systematic review of the literature. *Crit Care Med.* 2009;37(9):2642-2647.
 78. Dreyfuss D, Saumon G. Ventilator-induced lung injury: lessons from experimental studies. *Am J Respir Crit Care Med.* 1998;157(1):294-323.
 79. Slutsky AS, Tremblay LN. Multiple system organ failure. Is mechanical ventilation a contributing factor? *Am J Respir Crit Care Med.* 1998;157(6 Pt 1):1721-1725.
 80. Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and the acute respiratory distress syndrome. The Acute Respiratory Distress Syndrome Network. *N Engl J Med.* 2000;342(18):1301-1308.
 81. Sevransky JE, Levy MM, Marini JJ. Mechanical ventilation in sepsis-induced acute lung injury/acute respiratory distress syndrome: an evidence-based review. *Crit Care Med.* 2004;32(11 Suppl):S548-S553.
 82. Costello J, Higgins B, Contreras M. Hypercapnic acidosis attenuates shock and lung injury in early and prolonged systemic sepsis. *Crit Care Med.* 2009;37(8):2412-2420.
 83. Chonghaile MN, Higgins BD, Costello J, Laffey JG. Hypercapnic acidosis attenuates lung injury induced by established bacterial pneumonia. *Anesthesiology.* 2008;109(5):837-848.
 84. O'Croinin DF, et al. Sustained hypercapnic acidosis during pulmonary infection increases bacterial load and worsens lung injury. *Crit Care Med.* 2008;36(7):2128-2135.
 85. Dellinger RP, Zimmerman JL, Taylor RW, et al. Effects of inhaled nitric oxide in patients with acute respiratory distress syndrome: results of a randomized phase II trial. Inhaled Nitric Oxide in ARDS Study Group. *Crit Care Med.* 1998;26(1):15-23.
 86. Gattinoni L, Tognoni G, Pesenti A, et al. Effect of prone positioning on the survival of patients with acute respiratory failure. *N Engl J Med.* 2001;345(8):568-573.
 87. Napolitano LM, Park PK, Raghavendran K, Bartlett RH. Nonventilatory strategies for patients with life-threatening 2009 H1N1 influenza and severe respiratory failure. *Crit Care Med.* 2010;38(4 Suppl):e74-90.
 88. Landry DW, Oliver JA. The pathogenesis of vasodilatory shock. *N Engl J Med.* 2001;345(8):588-595.
 89. Russell JA, Walley KR, Singer J, et al. Vasopressin versus norepinephrine infusion in patients with septic shock. *N Engl J Med.* 2008;358(9):877-887.
 90. De Backer D, Biston P, Devriendt J, et al. Comparison of dopamine and norepinephrine in the treatment of shock. *N Engl J Med.* 2010;362(9):779-789.
 91. Harvey S, Young D, Brampton W, et al. Pulmonary artery catheters for adult patients in intensive care. *Cochrane Database Syst Rev.* 2006:CD003408.
 92. Forni LG, Hilton PJ. Continuous hemofiltration in the treatment of acute renal failure. *N Engl J Med.* 1997;336(18):1303-1309.
 93. Weisbord SD, Palevsky PM. Radiocontrast-induced acute renal failure. *J Intensive Care Med.* 2005;20(2):63-75.
 94. Zimmerman JL. Use of blood products in sepsis: an evidence-based review. *Crit Care Med.* 2004;32(11 Suppl):S542-S547.
 95. Hébert PC, Wells G, Blajchman MA, et al. A multicenter, randomized, controlled clinical trial of transfusion requirements in critical care. Transfusion Requirements in Critical Care Investigators, Canadian Critical Care Trials Group. *N Engl J Med.* 1999;340(6):409-417.
 96. Practice Guidelines for blood component therapy: A report by the American Society of Anesthesiologists Task Force on Blood Component Therapy. *Anesthesiology.* 1996;84(3):732-747.
 97. Cepkova M, Kapur V, Ren X, et al. Pulmonary dead space fraction and pulmonary artery systolic pressure as early predictors of clinical outcome in acute lung injury. *Chest.* 2007;132(3):836-842.