

HOSPITAL BENCHMARKING PERFORMANCE IMPROVEMENT LINKS

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RESOURCES ON SEPSIS

OCTOBER 2008

Selected Websites (pp 1-2)

Medical Literature: (p 3)

Guideline for Hand Hygiene in Healthcare Settings (2002)

<http://www.cdc.gov/handhygiene/>

American Society of Critical Care Medicine

<http://www.sccm.org/>

Institute for Healthcare Improvement

<http://www.ihl.org/IHI/Topics/CriticalCare/Sepsis/>

National Guideline Clearinghouse

<http://www.guideline.gov/>

The MUST Protocol: A Sepsis Protocol

Multiple Urgent Sepsis Treatments Protocol

<http://sepsis.bidmc.harvard.edu/>

Michigan Health & Safety Coalition Toolkit for ICUs

<http://www.mihealthandsafety.org/icu/8.htm>

International Sepsis Forum

<http://www.sepsisforum.org/>

National Nosocomial Infections Surveillance (NNIS) System Report, data summary from January 1992 through June 2004, issued October 2004.

http://www.cdc.gov/ncidod/dhqp/nnis_pubs.html

National Nosocomial Infections Surveillance (NHSN) System Report

Published in AJIC July 2007

<http://www.cdc.gov/ncidod/dhqp/nhsn.html>

MEDICAL LITERATURE

[Jones AE, Brown MD, Trzeciak S, Shapiro NI, Garrett JS, Heffner AC, Kline JA: Emergency Medicine Shock Research Network investigators.](#)

The effect of a quantitative resuscitation strategy on mortality in patients with sepsis: a meta-analysis.

Crit Care Med. 2008 Oct;36(10):2734-9.

PMID: 18766093 [PubMed - in process]

[Machado FR, Freitas FG.](#)

Controversies of surviving sepsis campaign bundles: should we use them?

Shock. 2008 Oct;30 Suppl 1:34-40.

PMID: 18704011 [PubMed - in process]

[Vincent JL, Marshall JC.](#)

Surviving sepsis: a guide to the guidelines.

Crit Care. 2008;12(3):162. Epub 2008 Jun 30.

PMID: 18598386 [PubMed - indexed for MEDLINE]

[Klouche M, Schröder U.](#)

Rapid methods for diagnosis of bloodstream infections.

Clin Chem Lab Med. 2008;46(7):888-908. Review.

PMID: 18624614 [PubMed - indexed for MEDLINE]

[Barie PS.](#)

Current role of activated protein C therapy for severe sepsis and septic shock.

Curr Infect Dis Rep. 2008 Sep;10(5):368-76.

PMID: 18687200 [PubMed - in process]

[Green RS, Djogovic D, Gray S, Howes D, Brindley PG, Stenstrom R, Patterson E, Easton D, Davidow JS.](#)

Canadian Association of Emergency Physicians Sepsis Guidelines: the optimal management of severe sepsis in Canadian emergency departments.

CJEM. 2008 Sep;10(5):443-59.

PMID: 18826733 [PubMed - in process]

[Hollenbach E.](#)

Invasive candidiasis in the ICU: evidence based and on the edge of evidence.

Mycoses. 2008 Sep;51 Suppl 2:25-45.

PMID: 18721330 [PubMed - in process]

[Kollef M.](#)

SMART approaches for reducing nosocomial infections in the ICU.

Chest. 2008 Aug;134(2):447-56.

PMID: 18682466 [PubMed - in process]

[Catenacci MH, King K.](#)

Severe sepsis and septic shock: improving outcomes in the emergency department.

Emerg Med Clin North Am. 2008 Aug;26(3):603-23, vii. Review.

PMID: 18655937 [PubMed - indexed for MEDLINE]

[Soylemez Wiener R, Wiener DC, Larson RJ.](#)

Benefits and risks of tight glucose control in critically ill adults: a meta-analysis.

JAMA. 2008 Aug 27;300(8):933-44.

PMID: 18728267 [PubMed - in process]

[Finfer S, Delaney A.](#)

Tight glycemic control in critically ill adults.

JAMA. 2008 Aug 27;300(8):963-5. No abstract available.

PMID: 18728273 [PubMed - in process]

[Campbell J.](#)

The effect of nurse champions on compliance with Keystone Intensive Care Unit Sepsis-screening protocol.

Crit Care Nurs Q. 2008 Jul-Sep;31(3):251-69.

PMID: 18574373 [PubMed - indexed for MEDLINE]

[Afshari A, Wetterslev J, Brok J, Møller AM.](#)

Antithrombin III for critically ill patients.

Cochrane Database Syst Rev. 2008 Jul 16;(3):CD005370. Review.

PMID: 18646125 [PubMed - in process]

[Ferrer R, Artigas A, Levy MM, Blanco J, González-Díaz G, Garnacho-Montero J, Ibáñez J, Palencia E, Quintana M, de la Torre-Prados MV; Edusepsis Study Group.](#)

Improvement in process of care and outcome after a multicenter severe sepsis educational program in Spain.

JAMA. 2008 May 21;299(19):2294-303.

PMID: 18492971 [PubMed - indexed for MEDLINE]

[Costello JM, Morrow DF, Graham DA, Potter-Bynoe G, Sandora TJ, Laussen PC.](#)

Systematic intervention to reduce central line-associated bloodstream infection rates in a pediatric cardiac intensive care unit.

Pediatrics. 2008 May;121(5):915-23.

PMID: 18450894 [PubMed - indexed for MEDLINE]

[Treggiari MM, Karir V, Yanez ND, Weiss NS, Daniel S, Deem SA.](#)

Intensive insulin therapy and mortality in critically ill patients.

Crit Care. 2008;12(1):R29. Epub 2008 Feb 29.

PMID: 18312617 [PubMed - indexed for MEDLINE]

[Minton J, Clayton J, Sandoe J, Mc Gann H, Wilcox M.](#)

Improving early management of bloodstream infection: a quality improvement project.

BMJ. 2008 Feb 23;336(7641):440-3. No abstract available.

PMID: 18292170 [PubMed - in process]

[Meade MO, Cook DJ, Guyatt GH, Slutsky AS, Arabi YM, Cooper DJ, Davies AR, Hand LE, Zhou Q, Thabane L, Austin P, Lapinsky S, Baxter A, Russell J, Skrobik Y, Ronco JJ, Stewart TE; Lung Open Ventilation Study Investigators.](#)

Ventilation strategy using low tidal volumes, recruitment maneuvers, and high positive end-expiratory pressure for acute lung injury and acute respiratory distress syndrome: a randomized controlled trial.

JAMA. 2008 Feb 13;299(6):637-45. PMID: 18270352 [PubMed - indexed for MEDLINE]

[Brunkhorst FM, Engel C, Bloos F, Meier-Hellmann A, Ragaller M, Weiler N, Moerer O, Gruendling M, Oppert M, Grond S, Olthoff D, Jaschinski U, John S, Rossaint R, Welte T, Schaefer M, Kern P, Kuhnt E, Kiehntopf M, Hartog C, Natanson C, Loeffler M, Reinhart K; German Competence Network Sepsis \(SepNet\).](#)

Intensive insulin therapy and pentastarch resuscitation in severe sepsis.

N Engl J Med. 2008 Jan 10;358(2):125-39.

PMID: 18184958 [PubMed - indexed for MEDLINE]

[Sprung CL, Annane D, Keh D, Moreno R, Singer M, Freivogel K, Weiss YG, Benbenishty J, Kalenka A, Forst H, Laterre PF, Reinhart K, Cuthbertson BH, Payen D, Briegel J; CORTICUS Study Group.](#)

Hydrocortisone therapy for patients with septic shock.

N Engl J Med. 2008 Jan 10;358(2):111-24.

PMID: 18184957 [PubMed - indexed for MEDLINE]

[Dellinger RP, Levy MM, Carlet JM, Bion J, Parker MM, Jaeschke R, Reinhart K, Angus DC, Brun-Buisson C, Beale R, Calandra T, Dhainaut JF, Gerlach H, Harvey M, Marini JJ, Marshall J, Ranieri M, Ramsay G, Sevransky J, Thompson BT, Townsend S, Vender JS, Zimmerman JL, Vincent JL; International Surviving Sepsis Campaign Guidelines Committee; American Association of Critical-Care Nurses; American College of Chest Physicians; American College of Emergency Physicians; Canadian Critical Care Society; European Society of Clinical Microbiology and Infectious Diseases; European Society of Intensive Care Medicine; European Respiratory Society; International Sepsis Forum; Japanese Association for Acute Medicine; Japanese Society of Intensive Care Medicine; Society of Critical Care Medicine; Society of Hospital Medicine; Surgical Infection Society; World Federation of Societies of Intensive and Critical Care Medicine.](#)

Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock: 2008.

Crit Care Med. 2008 Jan;36(1):296-327.

PMID: 18158437 [PubMed - indexed for MEDLINE]

[Omland T.](#)

Advances in congestive heart failure management in the intensive care unit: B-type natriuretic peptides in evaluation of acute heart failure.

Crit Care Med. 2008 Jan;36(1 Suppl):S17-27. Review.

PMID: 18158473 [PubMed - indexed for MEDLINE]

[Martí-Carvajal A, Salanti G, Cardona A.](#)

Human recombinant activated protein C for severe sepsis.

Cochrane Database Syst Rev. 2008 Jan 23;(1):CD004388.

PMID: 18254048 [PubMed - in process]

[Wheeler AP.](#)

Recent developments in the diagnosis and management of severe sepsis.

Chest. 2007 Dec;132(6):1967-76. Review.

PMID: 18079230 [PubMed - indexed for MEDLINE]

[Berenholtz SM, Pronovost PJ, Ngo K, Barie PS, Hitt J, Kuti JL, Septimus E, Lawler N, Schilling L, Dorman T; Core Sepsis Measurement Team.](#)

Developing quality measures for sepsis care in the ICU.

Jt Comm J Qual Patient Saf. 2007 Sep;33(9):559-68. Review.

PMID: 17915530 [PubMed - indexed for MEDLINE]

[Merx MW, Weber C.](#)

Sepsis and the heart.

Circulation. 2007 Aug 14;116(7):793-802. Review.

PMID: 17698745 [PubMed - indexed for MEDLINE]

[Cinel I, Dellinger RP.](#)

Advances in pathogenesis and management of sepsis.
Curr Opin Infect Dis. 2007 Aug;20(4):345-52. Review.
PMID: 17609592 [PubMed - indexed for MEDLINE]

[Schlichting D, McCollam JS.](#)

Recognizing and managing severe sepsis: a common and deadly threat.
South Med J. 2007 Jun;100(6):594-600. Review.
PMID: 17591313 [PubMed - indexed for MEDLINE]

[Patel GP, Elpern EH, Balk RA.](#)

A campaign worth joining: improving outcome in severe sepsis and septic shock using the Surviving Sepsis Campaign guidelines.
South Med J. 2007 Jun;100(6):557-8. No abstract available.
PMID: 17591307 [PubMed - indexed for MEDLINE]

[Amarasingham R, Pronovost PJ, Diener-West M, Goeschel C, Dorman T, Thiemann DR, Powe NR.](#)

Measuring clinical information technology in the ICU setting: application in a quality improvement collaborative.
J Am Med Inform Assoc. 2007 May-Jun;14(3):288-94. Epub 2007 Feb 28.
PMID: 17329726 [PubMed - indexed for MEDLINE]

[Sevransky JE, Nour S, Susla GM, Needham DM, Hollenberg S, Pronovost P.](#)

Hemodynamic goals in randomized clinical trials in patients with sepsis: a systematic review of the literature.
Crit Care. 2007;11(3):R67.
PMID: 17584921 [PubMed - in process]

[Simpson SQ, Peterson DA, O'Brien-Ladner AR.](#)

Development and implementation of an ICU quality improvement checklist.
AACN Adv Crit Care. 2007 Apr-Jun;18(2):183-9. Review.
PMID: 17473547 [PubMed - indexed for MEDLINE]

[Nguyen HB, Corbett SW, Steele R, Banta J, Clark RT, Hayes SR, Edwards J, Cho TW, Wittlake WA.](#)

Implementation of a bundle of quality indicators for the early management of severe sepsis and septic shock is associated with decreased mortality.
Crit Care Med. 2007 Apr;35(4):1105-12.
PMID: 17334251 [PubMed - indexed for MEDLINE]

[Wood S, Lavieri MC, Durkin T.](#)

What you need to know about sepsis.
Nursing. 2007 Mar;37(3):46-51; quiz 52. No abstract available.
PMID: 17546784 [PubMed - indexed for MEDLINE]

[Trzeciak S, Dellinger RP, Parrillo JE, Guglielmi M, Bajaj J, Abate NL, Arnold RC, Colilla S, Zanotti S, Hollenberg SM; Microcirculatory Alterations in Resuscitation and Shock Investigators.](#)

Early microcirculatory perfusion derangements in patients with severe sepsis and septic shock: relationship to hemodynamics, oxygen transport, and survival.

Ann Emerg Med. 2007 Jan;49(1):88-98, 98.e1-2. Epub 2006 Nov 7.

PMID: 17095120 [PubMed - indexed for MEDLINE]

[Pronovost P, Needham D, Berenholtz S, Sinopoli D, Chu H, Cosgrove S, Sexton B, Hyzy R, Welsh R, Roth G, Bander J, Kepros J, Goeschel C.](#)

An intervention to decrease catheter-related bloodstream infections in the ICU.

N Engl J Med. 2006 Dec 28;355(26):2725-32. Erratum in: N Engl J Med. 2007 Jun 21;356(25):2660.

PMID: 17192537 [PubMed - indexed for MEDLINE]

[Annane D, Maxime V, Ibrahim F, Alvarez JC, Abe E, Boudou P.](#)

Diagnosis of adrenal insufficiency in severe sepsis and septic shock.

Am J Respir Crit Care Med. 2006 Dec 15;174(12):1319-26. Epub 2006 Sep 14.

PMID: 16973979 [PubMed - indexed for MEDLINE]

[Shapiro N, Howell MD, Bates DW, Angus DC, Ngo L, Talmor D.](#)

The association of sepsis syndrome and organ dysfunction with mortality in emergency department patients with suspected infection.

Ann Emerg Med. 2006 Nov;48(5):583-90, 590.e1.

PMID: 17052559 [PubMed - indexed for MEDLINE]

[Rosenthal VD, Maki DG, Salomao R, Moreno CA, Mehta Y, Higuera F, Cuellar LE, Arikan OA, Abouqal R, Leblebicioglu H; International Nosocomial Infection Control Consortium.](#)

Device-associated nosocomial infections in 55 intensive care units of 8 developing countries.

Ann Intern Med. 2006 Oct 17;145(8):582-91.

PMID: 17043340 [PubMed - indexed for MEDLINE]

[Maki DG, Kluger DM, Crnich CJ.](#)

The risk of bloodstream infection in adults with different intravascular devices: a systematic review of 200 published prospective studies.

Mayo Clin Proc. 2006 Sep;81(9):1159-71. Review.

PMID: 16970212 [PubMed - indexed for MEDLINE]

[Nguyen HB, Rivers EP, Abrahamian FM, Moran GJ, Abraham E, Trzeciak S, Huang DT, Osborn T, Stevens D, Talan DA; Emergency Department Sepsis Education Program and Strategies to Improve Survival \(ED-SEPSIS\) Working Group.](#)

Severe sepsis and septic shock: review of the literature and emergency department management guidelines.

Ann Emerg Med. 2006 Jul;48(1):28-54. Epub 2006 May 2. Review.

PMID: 16781920 [PubMed - indexed for MEDLINE]

[Picard KM, O'Donoghue SC, Young-Kershaw DA, Russell KJ.](#)

Development and implementation of a multidisciplinary sepsis protocol.

Crit Care Nurse. 2006 Jun;26(3):43-54. Review. No abstract available.

PMID: 16717386 [PubMed - indexed for MEDLINE]

[Shapiro NI, Howell MD, Talmor D, Lahey D, Ngo L, Buras J, Wolfe RE, Weiss JW, Lisbon A.](#)

Implementation and outcomes of the Multiple Urgent Sepsis Therapies (MUST) protocol.

Crit Care Med. 2006 Apr;34(4):1025-32.

PMID: 16484890 [PubMed - indexed for MEDLINE]

[Parrillo JE.](#)

Severe sepsis and therapy with activated protein C.

N Engl J Med. 2005 Sep 29;353(13):1398-400. No abstract available. Erratum in: N Engl

J Med. 2005 Nov 24;353(21):2311.

PMID: 16192486 [PubMed - indexed for MEDLINE]

[Shapiro NI, Howell M, Talmor D.](#)

A blueprint for a sepsis protocol.

Acad Emerg Med. 2005 Apr;12(4):352-9.

PMID: 15805328 [PubMed - indexed for MEDLINE]

[Bridges EJ, Dukes S.](#)

Cardiovascular aspects of septic shock: pathophysiology, monitoring, and treatment.

Crit Care Nurse. 2005 Apr;25(2):14-6, 18-20, 22-4 passim; quiz 41-2. Review.

PMID: 15871533 [PubMed - indexed for MEDLINE]

]

[Safdar N, Fine JP, Maki DG.](#)

Meta-analysis: methods for diagnosing intravascular device-related bloodstream infection.

Ann Intern Med. 2005 Mar 15;142(6):451-66. Erratum in: Ann Intern Med. 2005 May 3;142(9):803.

PMID: 15767623 [PubMed - indexed for MEDLINE]

