Alliance of Independent Academic Medical Centers’ National Initiative:

*Improving Patient Care Through GME*

Resource Document

Central Line Infections

October 1, 2007
Central Line Resources
This document contains Web Resources and a bibliography divided into categories.

Web Resources
Description: An outline listing the essential elements for surveillance of healthcare-associated infections (HAI) and describing the traditional surveillance methodology that has been used in HAI surveillance systems conducted by the Centers for Disease Control and Prevention since 1970. Numerator and denominator data to collect and their sources also are described, as is how an infection control professional (ICP) collects such data. References to more detailed accounts of HAI surveillance are provided.


Description: Guideline developed for practitioners who insert catheters and for persons responsible for surveillance and control of infections in hospital, outpatient, and home health-care settings.

Description: This report describes a substantial reduction in central line--associated BSI rates after a coordinated intervention among hospitals in a region. Additional studies are needed to determine whether similar levels of success can be achieved by applying this strategy to other health-care--associated infections.
Web Sites
Agency for Healthcare Research and Quality (AHRQ): http://www.ahrq.gov/
Institute for Healthcare Improvement (IHI): http://www.ihi.org/ihi

Articles
General
Bantar C, Bustos JL, Vesco E, Morera G. The Residence of Internal Medicine Group. Central Venous Catheter-Related Infection: A Prospective, Observational Study to Assess the Incidence Rate at a Teaching Hospital in Argentina. Infection Control & Hospital Epidemiology 2002;23(12):757-758.


**Bacteremia**


**Barriers, Dressings, and Replacement**

Adams D, Elliot TSJ. Skin antiseptics used prior to intravascular catheter insertion. *British Journal of Nursing* 2007;16(5):278-280.

Amarante JMB, Biancalana MLN, LaPorte L, Almeida S. Comparison of central venous catheter fungal infection rates in relation to the use of PVPI or chlorhexidine in the care of central venous catheters and the impact of systematic (every 7 days) or non-systematic catheters change. *American Journal of Infection Control* 2000;28(1):83.


Brooks KL, Dauenhauer SA, Evans JT, Cosponsored by the Association for Professionals in Infection Control and Epidemiology, Inc, the National Foundation for Infectious Diseases, and the Society for Healthcare Epidemiology of America. Decreased incidence of central line-related bloodstream infections associated with use of silver-impregnated dressings at central venous catheter sites. *Infection Control & Hospital Epidemiology* 2000;21(2):93-94.


Najeme E. Central venous catheter realated infection: Which dressing is more effective in preventing infection? *Bone Marrow Transplantation*. 2006;37(Supplement 1):S292.


Barrier and Dressing Replacement Review Articles

Catheter Type
Amarante JMB, Biancalana MLN, LaPorte L, Almeida S. Comparison of central venous catheter fungal infection rates in relation to the use of PVPI or chlorhexidine in the care of central venous catheters and the impact of systematic (every 7 days) or non-systematic catheters change. American Journal of Infection Control 2000;28(1):83.


**Catheter Type Review Articles**


EBM Reviews - ACP Journal Club Antiseptic catheters reduced catheter-related infections and were well tolerated. *ACP Journal Club* 1998;128:40.

EBM Reviews - ACP Journal Club Chlorhexidine gluconate solution prevented catheter colonization and infection. *ACP Journal Club* 1997;126:76.


**Colonization**


EBM Reviews - ACP Journal Club Chlorhexidine gluconate solution prevented catheter colonization and infection. ACP Journal Club 1997;126:76.


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Zuschneid I, Schwab F, Geffers C, Ruden H, Gastmeier P. Reducing central venous catheter-associated primary bloodstream infections in intensive care units is possible: Data from the German nosocomial infection surveillance system. *Infection Control & Hospital Epidemiology* 2003;24(7):501-505.

**Central Line Infections Review Articles**


**Prevention**


EBM Reviews - ACP Journal Club Chlorhexidine gluconate solution prevented catheter colonization and infection. *ACP Journal Club* 1997;126:76.


**Prevention Review Articles**


Cochrane Anaesthesia Group. Central venous access sites for the prevention of venous thrombosis, stenosis and infection in patients requiring long-term intravenous therapy. *Cochrane Database of Systematic Reviews* 2007;3.


**Acknowledgement**

This resource was developed by Matthew Judd, DO for the Alliance of Independent Academic Medical Centers’ National Initiative: Improving Patient Care through GME members. Last updated September 25, 2007.

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