

Central Line Bloodstream Infections



Infection Prevention Conference
Bismarck, North Dakota
August 17-18, 2011

Central Line Bloodstream Infections



- Central Lines
 - Hickman
 - Groshong
 - Dialysis Catheter
 - Implanted ports
 - Triple lumen
 - PICC Line
- Midlines are not counted as a central line

Cost of CL-BSI Annually



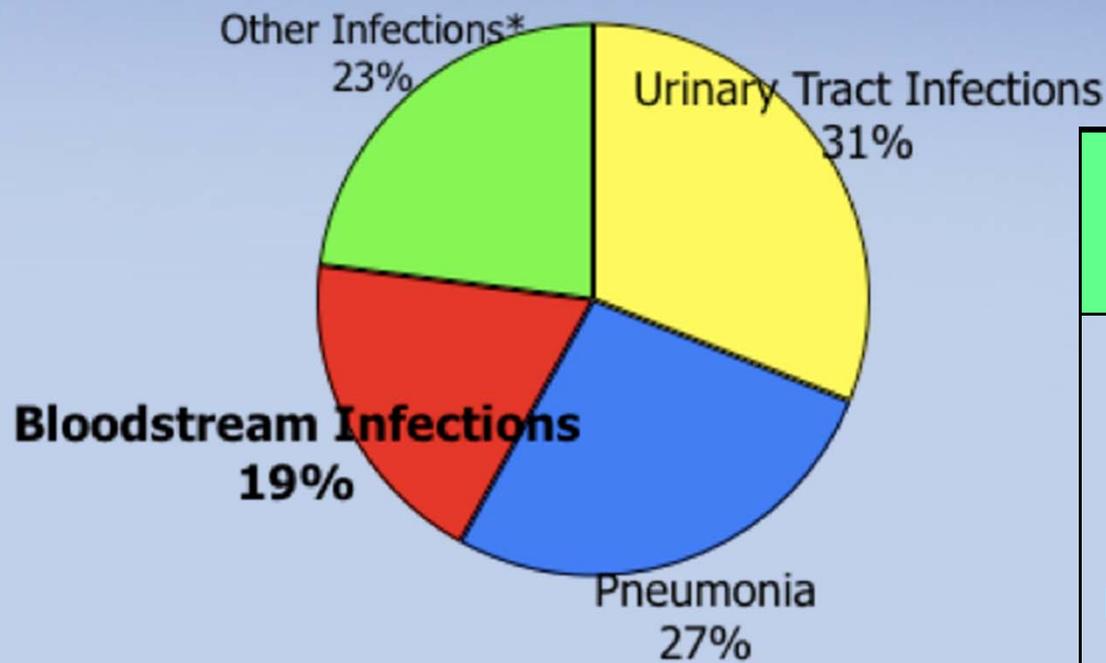
- 250K – 400K CVC-associated BSIs occur in in U.S. /yr
- Estimated cost /infection \$25 - \$56K
- Estimated annual cost to healthcare system: up to \$2.3 billion

Rate of BSI by Catheter Type



Type of Catheter	Per 100 Catheters (mean)	Per 1,000 Catheter Days (mean)
PIV	0.2	0.6
Short-term CVC	3.3	2.3
PICC (too low per Dr. Maki)	1.2*	0.4* (2.1)
Tunneled CVC	20.9	1.2
Implanted Port	5.1	0.2
Dialysis: noncuffed	16.2	2.8
Dialysis: cuffed	6.3	1.1

Hospital Acquired Infections by Infection Type



Infection Type	Average Charge per Discharge
Urinary Tract Infection	\$13,159
Pneumonia	\$14,951
Bloodstream Infection	\$25,996

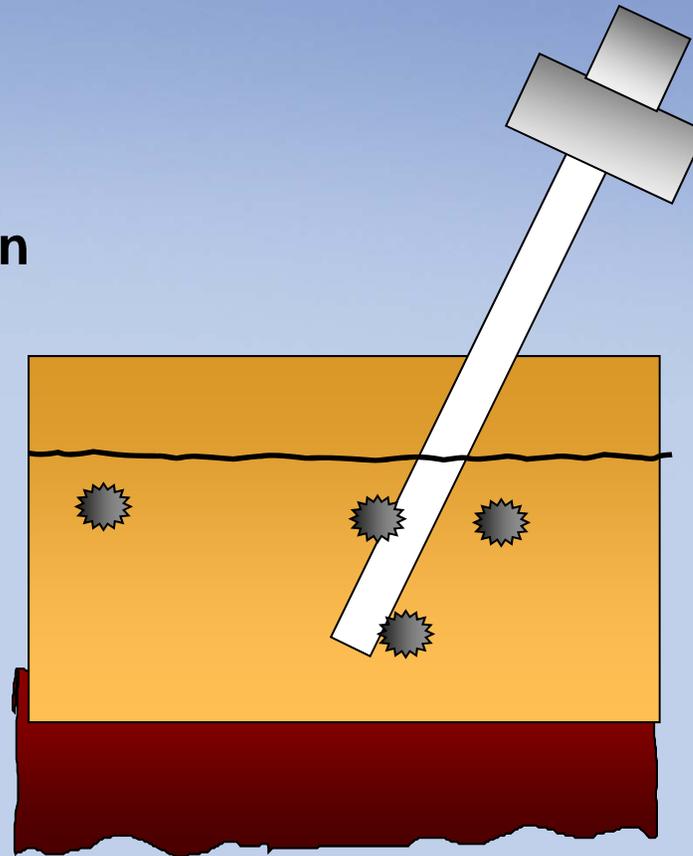
²Agency for Healthcare Research and Quality (AHRQ) 2002. Data based on DRGs 320, 89, and 415 for urinary tract infection, pneumonia, and septicemia, respectively. Infection types may be community- or hospital-acquired.

*Includes skin, intra-abdominal, and central nervous system infections.

Skin Preparation



Apply chlorhexidine skin antiseptic using friction for 30 seconds in a back & forth motion



Attachment on passage through the skin

2011 Copyright InCo and Associates Intl.

Daily Site Assessment



- Assess exit site for drainage
- Check if dressing is wet, loose or soiled
- Change if needed
- Notify MD if site is tender & swollen or has pus-like drainage

Cleansing Site for Dressing Change



Clean exit site with alcohol if needed; e.g., remove old blood

Apply Chloraprep using friction for 30 seconds; let dry completely

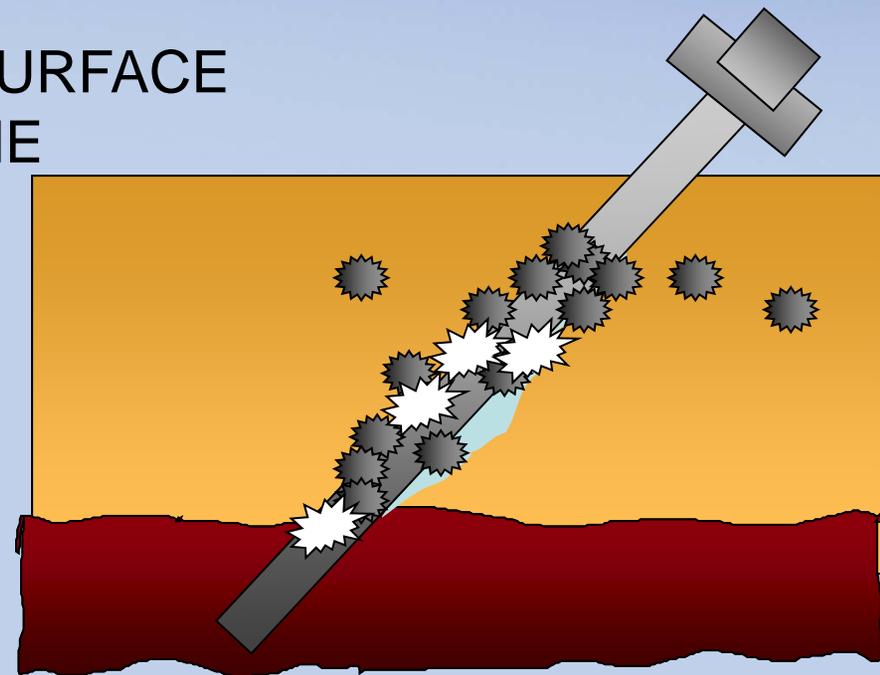


Regrowing Surface Bacteria



WITHIN HOURS EDEMA/DRAINAGE OCCUPY
THE SKIN TRACT

MIGRATION OF REGROWING SURFACE
BACTERIA BY DIFFUSION IN THE
EDEMATOUS SKIN TRACT

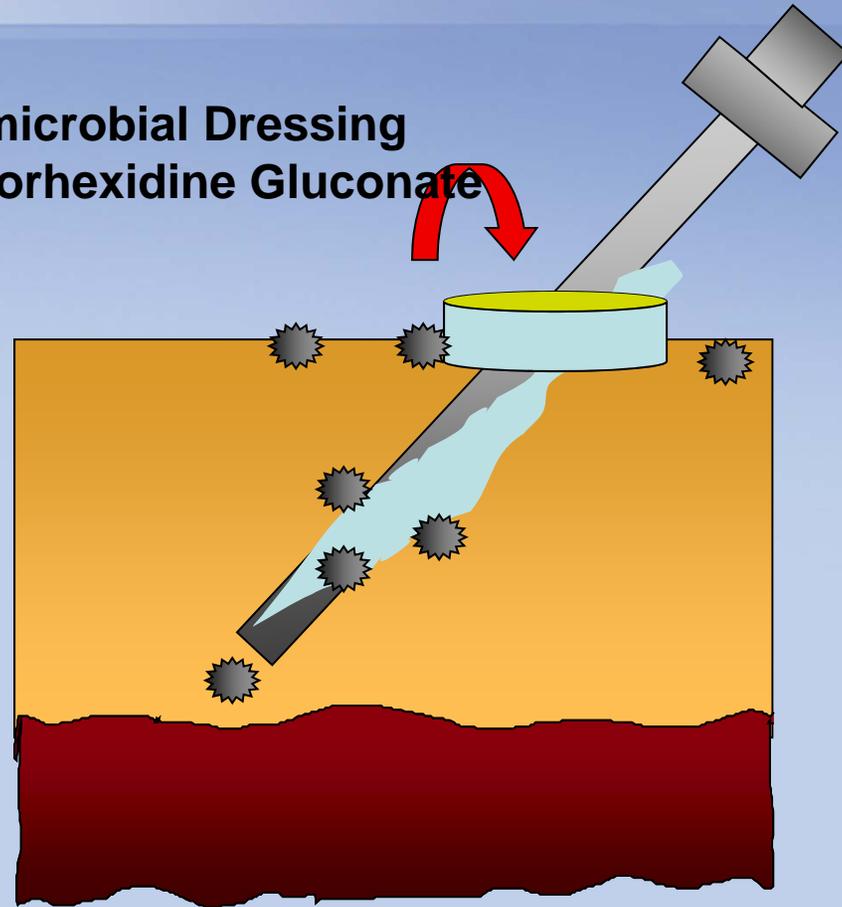
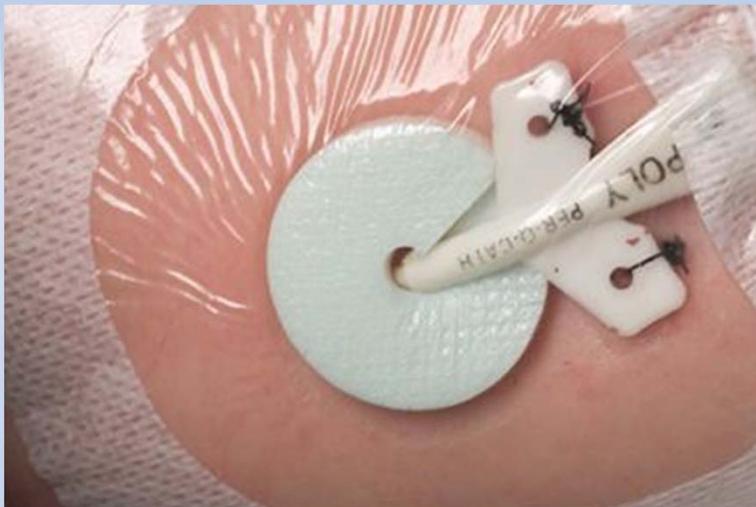


Migration of Regrowing Surface Bacteria



Antimicrobial Dressing with Chlorhexidine Gluconate

MIGRATION OF REGROWING SURFACE BACTERIA



2nd Source of CLBSI



- Hubs are 2nd source of CRI
- Suspect hub as source of CRI if infection develops > 10 days after insertion
- Failure to clean IV tubing/hub connection
- Every access must be disinfected
- Clean with alcohol like “juicing an orange”
- Needless connector design is implicated in ↑ rates of CLBSI---Dr Wm Jarvis, epidemiological work

SHEA



SHEA article.pdf - Adobe Acrobat Professional

File Edit View Document Comments Forms Tools Advanced Window Help

Create PDF Combine Files Export Start Meeting Secure Sign Forms Review & Comment

1 / 9 130% Find

S22 INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY OCTOBER 2008, VOL. 29, SUPPLEMENT 1

SUPPLEMENT ARTICLE: SHEA/IDSA PRACTICE RECOMMENDATION

Strategies to Prevent Central Line–Associated Bloodstream Infections in Acute Care Hospitals

Jonas Marschall, MD; Leonard A. Mermel, DO, ScM; David Classen, MD, MS; Kathleen M. Arias, MS, CIC; Kelly Podgorny, RN, MS, CPHQ; Deverick J. Anderson, MD, MPH; Helen Burstin, MD; David P. Calfee, MD, MS; Susan E. Coffin, MD, MPH; Erik R. Dubberke, MD; Victoria Fraser, MD; Dale N. Gerding, MD; Frances A. Griffin, RRT, MPA; Peter Gross, MD; Keith S. Kaye, MD; Michael Klompas, MD; Evelyn Lo, MD; Lindsay Nicolle, MD; David A. Pegues, MD; Trish M. Perl, MD; Sanjay Saint, MD; Cassandra D. Salgado, MD, MS; Robert A. Weinstein, MD; Robert Wise, MD; Deborah S. Yokoe, MD, MPH

PURPOSE

Previously published guidelines are available that provide comprehensive recommendations for detecting and preventing healthcare-associated infections. The intent of this document is to provide updated recommendations that are placed in emergency circumstances, repeatedly accessed each day, and often needed for extended periods.^{1,2}

b. Non-ICU population: Although the primary focus of attention over the past 2 decades has been the ICU setting, recent data suggest that the greatest numbers of patients

Inbox - Microsoft O... Central Line Infectio... Home Care ETC SHEA article.pdf - A... 8:20 PM

Central Line Bundle Checklist



CENTRAL LINE BUNDLE CHECKLIST [Compatibility Mode] - Microsoft Word

Home Insert Page Layout References Mailings Review View Add-Ins Acrobat Design Layout

Print Layout Full Screen Reading Web Outline Draft Document Views Ruler Document Map Gridlines Thumbnails Message Bar Show/Hide Zoom 100% One Page Two Pages Page Width New Window Arrange All Split Window View Side by Side Synchronous Scrolling Switch Windows - Reset Window Position Window Macros

36 72 108 144 180 216 252 288 324 360 396 432 468 504 540

CENTRAL LINE BUNDLE CHECKLIST

Date: ___/___/___ Start Time: _____

Location: _____

Catheter Type: Dialysis Central Venous PICC Pulmonary Artery

Number of Lumens: 1 2 3 4

Insertion Site: Jugular: R L Upper Arm: R L

Subclavian: R L Femoral: R L

Reason for Insertion: New Indication Elective Emergent Replace

Malfunctioning Catheter: _____

Procedure Provider: _____ Procedure Assistant: _____

Attending MD Consulting MD PICC Nurse Physician Assistant/CRNA

Standard Work Before, During, and After Procedure		Yes	Yes	No	N/A
		or True	After Reminder		
R	→ Patient has No allergy to Heparin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R	→ Patient's latex allergy assessed & procedure plan modified PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	→ Consent form completed & in chart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	→ On Boarding pass completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U	→ Confirm that all persons in room cleanse hands? (ASK, if unsure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R	→ Central line cart unclutter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P	→ Prep Procedure site <small>Chloraprep 10.5 ml applicator used</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P	<small>Dry: 30 second scrub + 30 second dry time OR</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P	<small>Wet: 2 minute scrub + 1 minute dry time</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R	→ Used large drape to cover patient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U	→ Wear Sterile gloves, hat, mask with eyeshield and sterile gown? <small>(All must be worn)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R	Procedure Provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U	Procedure Assistant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N	→ Maintain sterile field?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	→ Type of solution used to flush/dilute:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	→ Catheter caps placed on lumens?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	→ Catheter secured in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	→ Position confirmation <small>Fluoroscopy OR</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<small>Chest X-ray ordered</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	→ Was sterile technique maintained while applying dressing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	→ Was dressing dated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P	→ Catheter patency confirmed by:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T	<small>Always performed during procedure via femorotomy (see above), OR</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	<small>Chest X-ray indicated</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R	RN Procedure Note	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> EMERGENCY				

White - Chart Yellow - Dept. Manager/Direct Forward to IC within 48 hours

Adapted from the Virginia Mason Medical Center 2007 Million Sites Campaign. Setting Standard: Preventing Central Line Infections. Nov 20, 2008.

Page: 1 of 1 Words: 359 60%

Inbox - Microsoft O... central line bundle - ... Home Care ETC [Co... Microsoft PowerPoi... CENTRAL LINE BUN...

8:32 PM



VAP

Ventilator Associated Pneumonia

2011 Copyright InCo and Associates Intl.

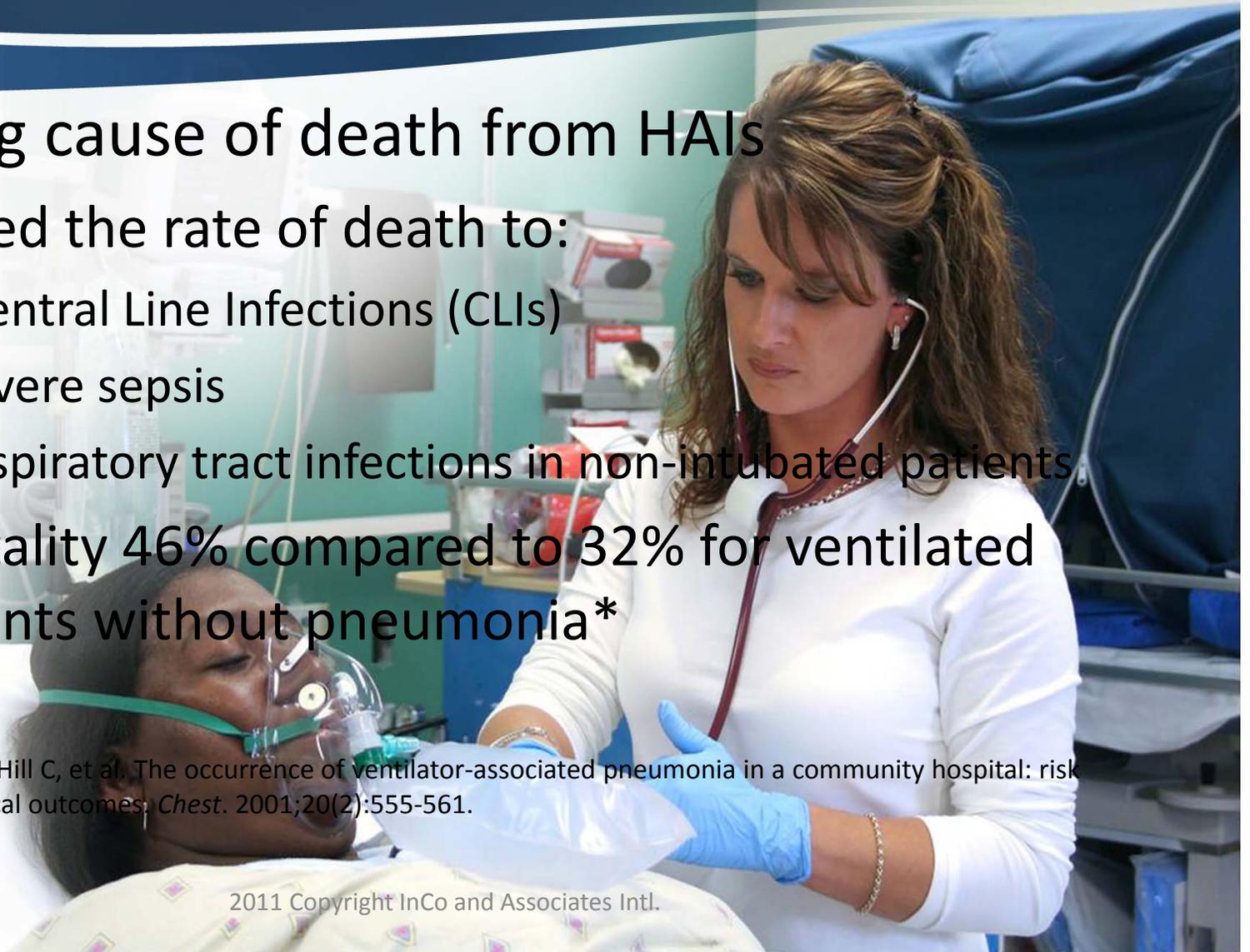
Ventilator-Associated Pneumonia (VAP)

- HAI in patients on a mechanical ventilator
 - Whom have no other reason for the infection
 - Infection started after ventilation
 - New or progressive pulmonary infiltrate with fever
 - Leukocytosis
 - Purulent tracheobronchial secretions
 - Considered a VAP
 - If the patient was intubated and ventilated at the time or within 48 hours before the onset of infection
- CDC definition, “There is no minimum period of time that the ventilator must be in place in order for the PNEU to be considered ventilator-associated.”

Leading Cause of Death

- Leading cause of death from HAIs
 - Exceed the rate of death to:
 - Central Line Infections (CLIs)
 - severe sepsis
 - respiratory tract infections in non-intubated patients
 - Mortality 46% compared to 32% for ventilated patients without pneumonia*

*Ibrahim EH, Tracy L, Hill C, et al. The occurrence of ventilator-associated pneumonia in a community hospital: risk factors and clinical outcomes. *Chest*. 2001;20(2):555-561.

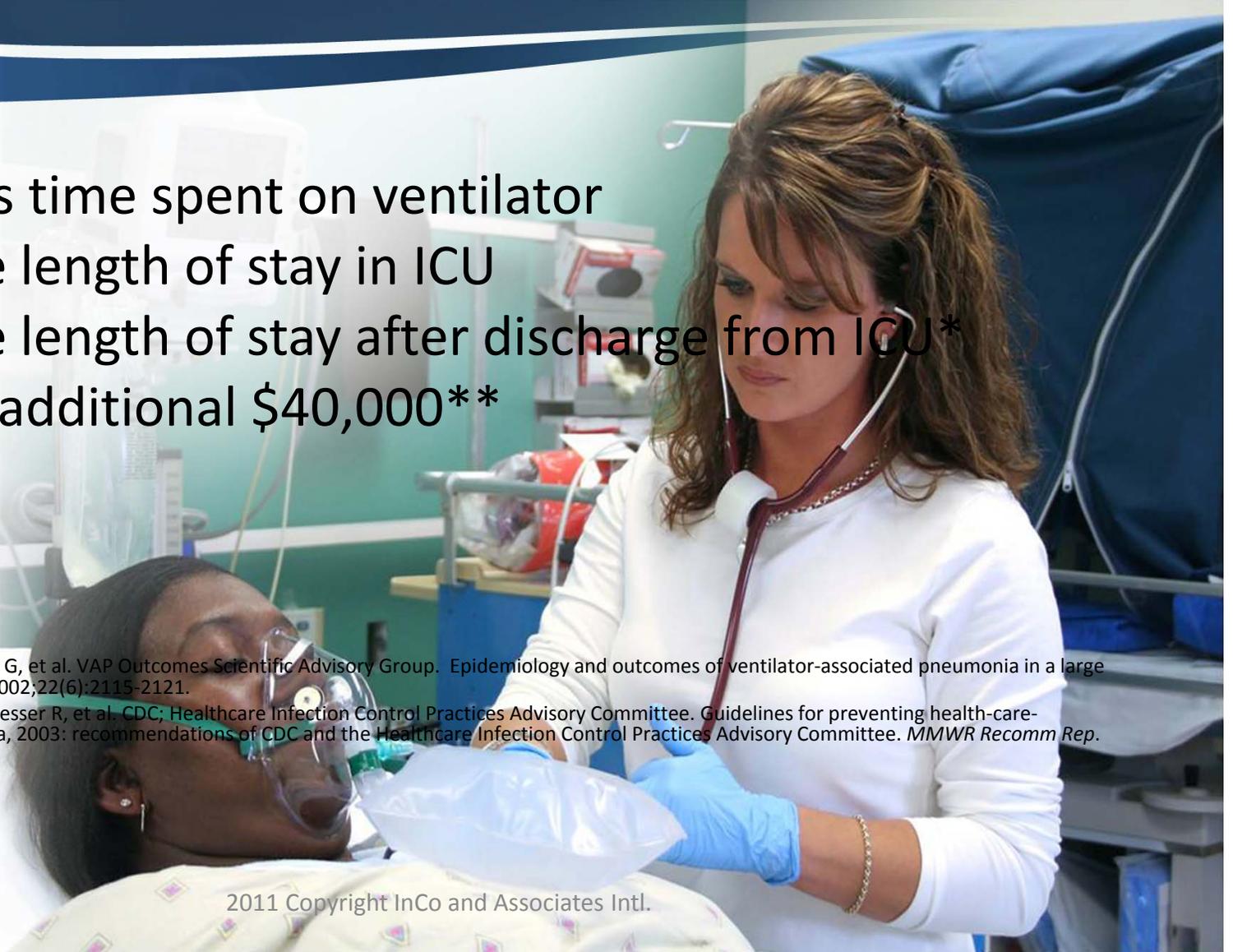


VAP

- Prolongs time spent on ventilator
- Increase length of stay in ICU
- Increase length of stay after discharge from ICU*
- Cost an additional \$40,000**

*Rello J, Ollendorf DA, Oster G, et al. VAP Outcomes Scientific Advisory Group. Epidemiology and outcomes of ventilator-associated pneumonia in a large US database. *Chest*. 2002;22(6):2115-2121.

**Tablan OC, Anderson LJ, Besser R, et al. CDC; Healthcare Infection Control Practices Advisory Committee. Guidelines for preventing health-care-associated pneumonia, 2003: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *MMWR Recomm Rep*. 2004;53(RR-3):1-36.



Compendium of Strategies to Prevent HAIs (APIC-SHEA)

The screenshot displays a web browser window with the URL <http://www.shea-online.org/GuidelinesResources/CompendiumofStrategiesToPrevent>. The browser's address bar shows the page title as "SHEA > Guidelines & Resou...". The browser interface includes a search bar, a "Sign In" button, and a navigation menu with options like "Home", "About SHEA", "Membership", "Education", "Guidelines & Resources", "Publications & News", "Policy", "Research", and "For Patients". The main content area features the SHEA logo and the title "Compendium of Strategies to Prevent HAIs". Below the title, there is a search bar and a "GO" button. The page content includes a "You Are Here" breadcrumb trail, a "Like" button, and a section titled "Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals". This section provides a brief overview of the document, stating that it represents practical recommendations by leading experts in infection prevention and healthcare quality improvement. Logos for SHEA, IDSA, American Hospital Association, APIC, and The Joint Commission are displayed at the bottom of the page. The browser's taskbar at the bottom shows several open applications, including "Inbox - Microsoft O...", "central line bundle -...", "Home Care ETC [Co...", "VAPHowtoGuide [C...", and "SHEA > Guidelines ...". The system clock indicates the time is 9:38 PM.

<http://www.shea-online.org/about/compendium.cfm>

2011 Copyright InCo and Associates Intl.

Strategies to Prevent VAP

The screenshot shows a web browser window displaying a JSTOR article. The browser's address bar shows the URL <http://www.jstor.org/stable/pdfplus/1c...>. The article title is "Strategies to Prevent Ventilator-Associated Pneumonia in Acute Care Hospitals". The authors listed are Susan E. Coffin, MD, MPH; Michael Klompas, MD; David Classen, MD, MS; Kathleen M. Arias, MS, CIC; Kelly Podgorny, RN, MS, CPHQ; Deverick J. Anderson, MD, MPH; Helen Burstin, MD; David P. Calfee, MD, MS; Erik R. Dubberke, MD; Victoria Fraser, MD; Dale N. Gerding, MD; Frances A. Griffin, RRT, MPA; Peter Gross, MD; Keith S. Kaye, MD; Evelyn Lo, MD; Jonas Marschall, MD; Leonard A. Mermel, DO, ScM; Lindsay Nicolle, MD; David A. Pegues, MD; Trish M. Perl, MD; Sanjay Saint, MD; Cassandra D. Salgado, MD, MS; and Robert A. Weinstein, MD; Robert Wise, MD; Deborah S. Yokoe, MD, MPH.

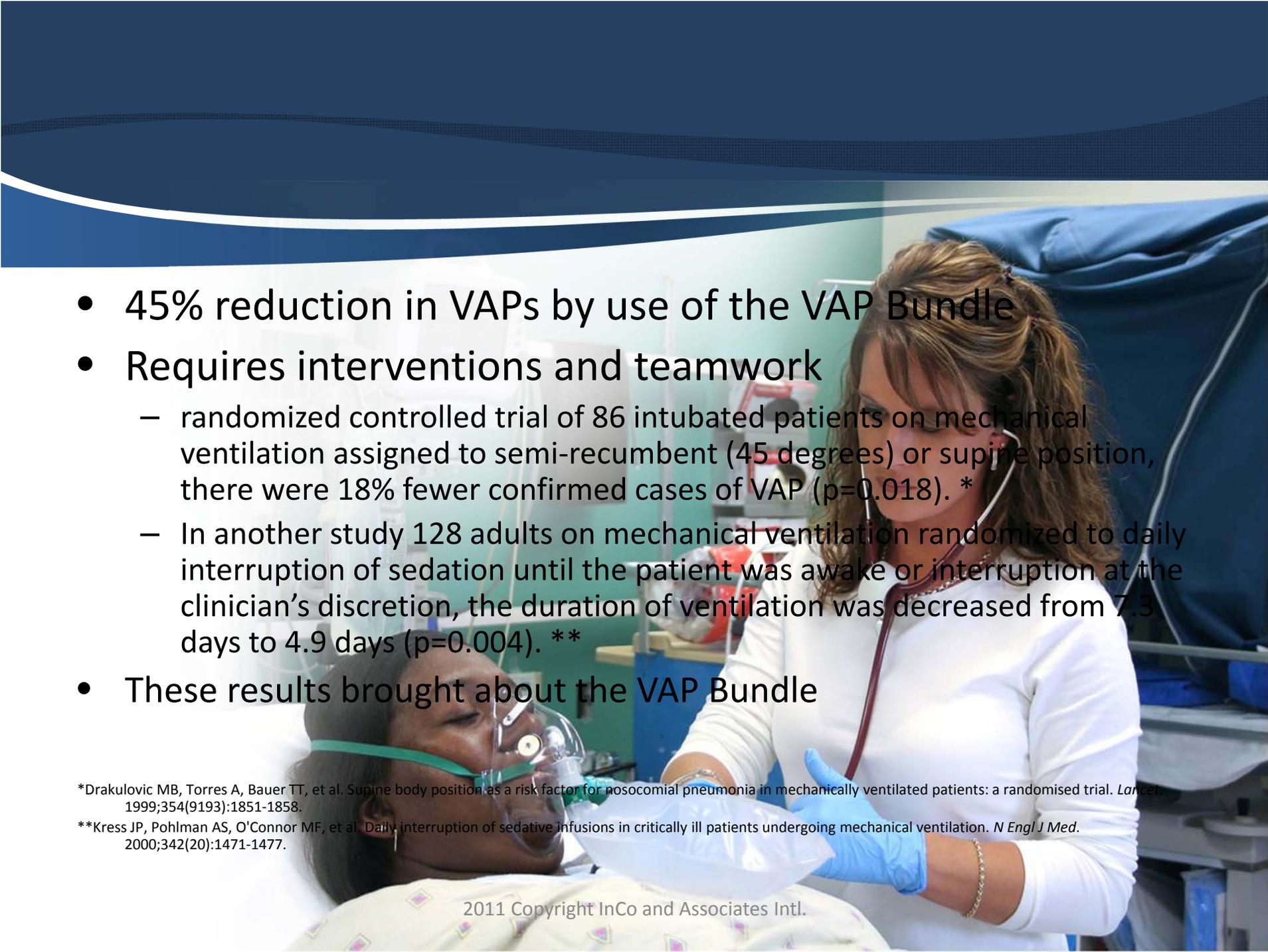
The article is from the journal *Infection Control and Hospital Epidemiology*, October 2008, Vol. 29, Supplement 1. It is a supplement article titled "SHEA/IDSA PRACTICE RECOMMENDATION".

PURPOSE
Previously published guidelines are available that provide comprehensive recommendations for detecting and preventing healthcare-associated infections. The intent of this document is to highlight practical recommendations in a concise format designed to assist acute care hospitals in implementing and prioritizing their ventilator-associated pneumonia (VAP) prevention efforts. Refer to the Society for Healthcare Epidemiology of America/Infectious Diseases Society of America "Compendium of Strategies to Prevent Healthcare-Associated Infections" Executive Summary and Introduction and accompanying editorial for additional discussion.

natal and surgical patient populations.^{5,7} The results of recent quality improvement initiatives, however, suggest that many cases of VAP might be prevented by careful attention to the process of care.

2. Outcomes associated with VAP
a. VAP is a cause of significant patient morbidity and mortality, increased utilization of healthcare resources, and excess cost.¹⁰⁻¹⁷
i. The mortality attributable to VAP may exceed 10%.^{18,22}
ii. Patients with VAP require prolonged periods of mechanical ventilation,²³ extended hospitalizations,^{4,11,16} excess use of antimicrobial medications, and increased

The right side of the screenshot shows the JSTOR website interface, including a login prompt: "You are not currently logged in through a participating institution or individual account. See the login page for more information." Below this are sections for "SUBSCRIBE OR RENEW", "JSTOR References" (5 items citing this item), "GOOGLE SCHOLAR" (related items and items citing this item), and "JOURNAL TRACKING" (receive updates by email and RSS feed).

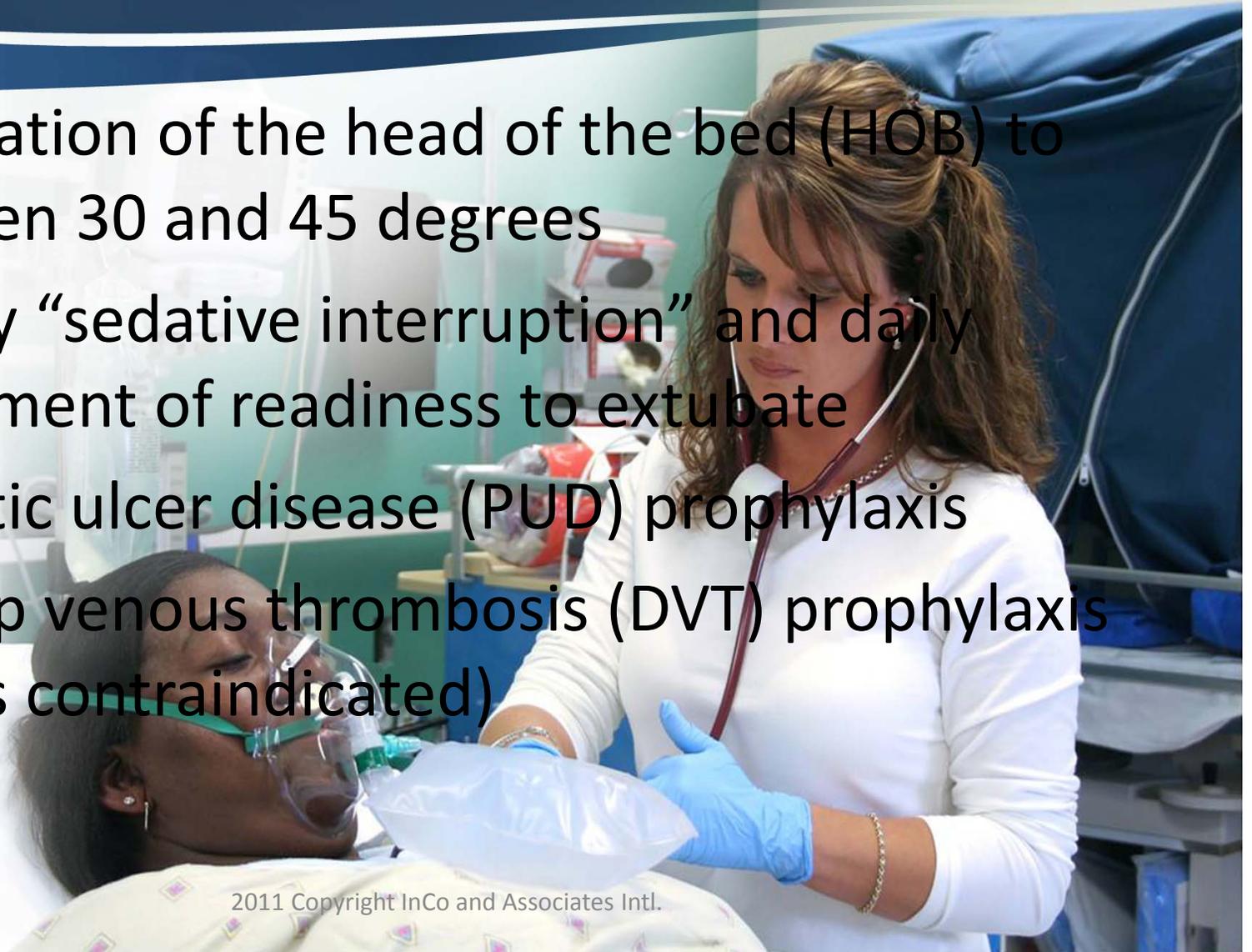
- 
- 45% reduction in VAPs by use of the VAP Bundle
 - Requires interventions and teamwork
 - randomized controlled trial of 86 intubated patients on mechanical ventilation assigned to semi-recumbent (45 degrees) or supine position, there were 18% fewer confirmed cases of VAP ($p=0.018$). *
 - In another study 128 adults on mechanical ventilation randomized to daily interruption of sedation until the patient was awake or interruption at the clinician's discretion, the duration of ventilation was decreased from 7.3 days to 4.9 days ($p=0.004$). **
 - These results brought about the VAP Bundle

*Drakulovic MB, Torres A, Bauer TT, et al. Supine body position as a risk factor for nosocomial pneumonia in mechanically ventilated patients: a randomised trial. *Lancet*. 1999;354(9193):1851-1858.

**Kress JP, Pohlman AS, O'Connor MF, et al. Daily interruption of sedative infusions in critically ill patients undergoing mechanical ventilation. *N Engl J Med*. 2000;342(20):1471-1477.

VAP Bundle

- 1. Elevation of the head of the bed (HOB) to between 30 and 45 degrees
- 2. Daily “sedative interruption” and daily assessment of readiness to extubate
- 3. Peptic ulcer disease (PUD) prophylaxis
- 4. Deep venous thrombosis (DVT) prophylaxis (unless contraindicated)



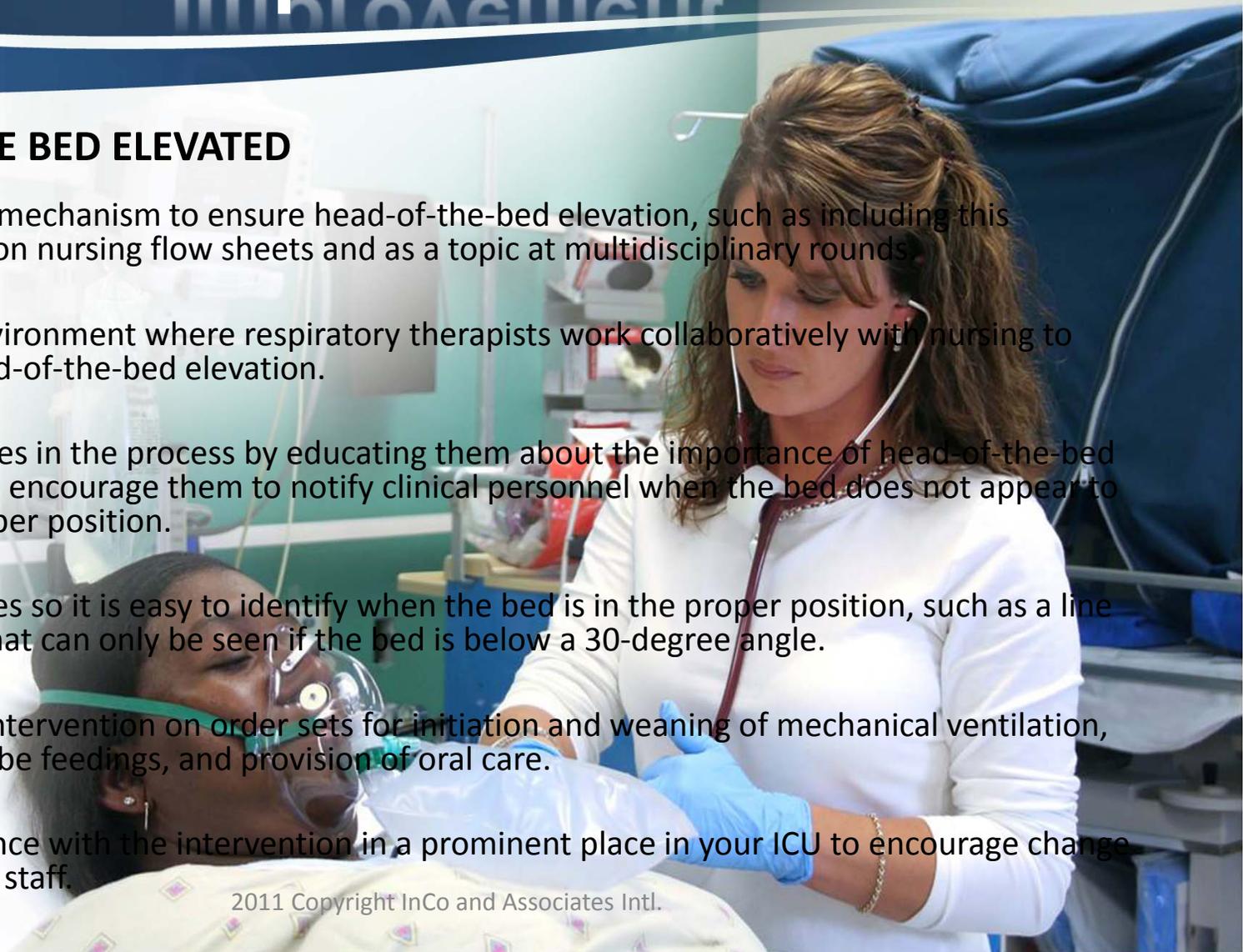
Elevation of HOB

- Elevation of the head of the bed (HOB) to between 30 and 45 degree
 - patients in the supine position will have lower spontaneous tidal volumes on pressure support ventilation than those seated in an upright position. Although patients may be on mandatory modes of ventilation, the improvement in position may aid ventilatory efforts and minimize atelectasis.

Changes That Can Result In Improvement

HEAD –OF-THE BED ELEVATED

- Implement a mechanism to ensure head-of-the-bed elevation, such as including this intervention on nursing flow sheets and as a topic at multidisciplinary rounds.
- Create an environment where respiratory therapists work collaboratively with nursing to maintain head-of-the-bed elevation.
- Involve families in the process by educating them about the importance of head-of-the-bed elevation and encourage them to notify clinical personnel when the bed does not appear to be in the proper position.
- Use visual cues so it is easy to identify when the bed is in the proper position, such as a line on the wall that can only be seen if the bed is below a 30-degree angle.
- Include this intervention on order sets for initiation and weaning of mechanical ventilation, delivery of tube feedings, and provision of oral care.
- Post compliance with the intervention in a prominent place in your ICU to encourage change and motivate staff.



Changes That Can Result In Improvement

SEDATION VACATION

- Implement a protocol to lighten sedation daily at an appropriate time to assess for neurological readiness to extubate. Include precautions to prevent self-extubation such as increased monitoring and vigilance during the trial.
- Include a sedative interruption strategy in your overall plan to wean the patient from the ventilator; if you have a weaning protocol, add sedative interruption to that strategy.
- Assess compliance each day on multidisciplinary rounds.
- Consider implementation of a sedation scale such as the Riker scale to avoid over-sedation.
- Post compliance with the intervention in a prominent place in your ICU to encourage change and motivate staff.

Changes That Can Result In Improvement

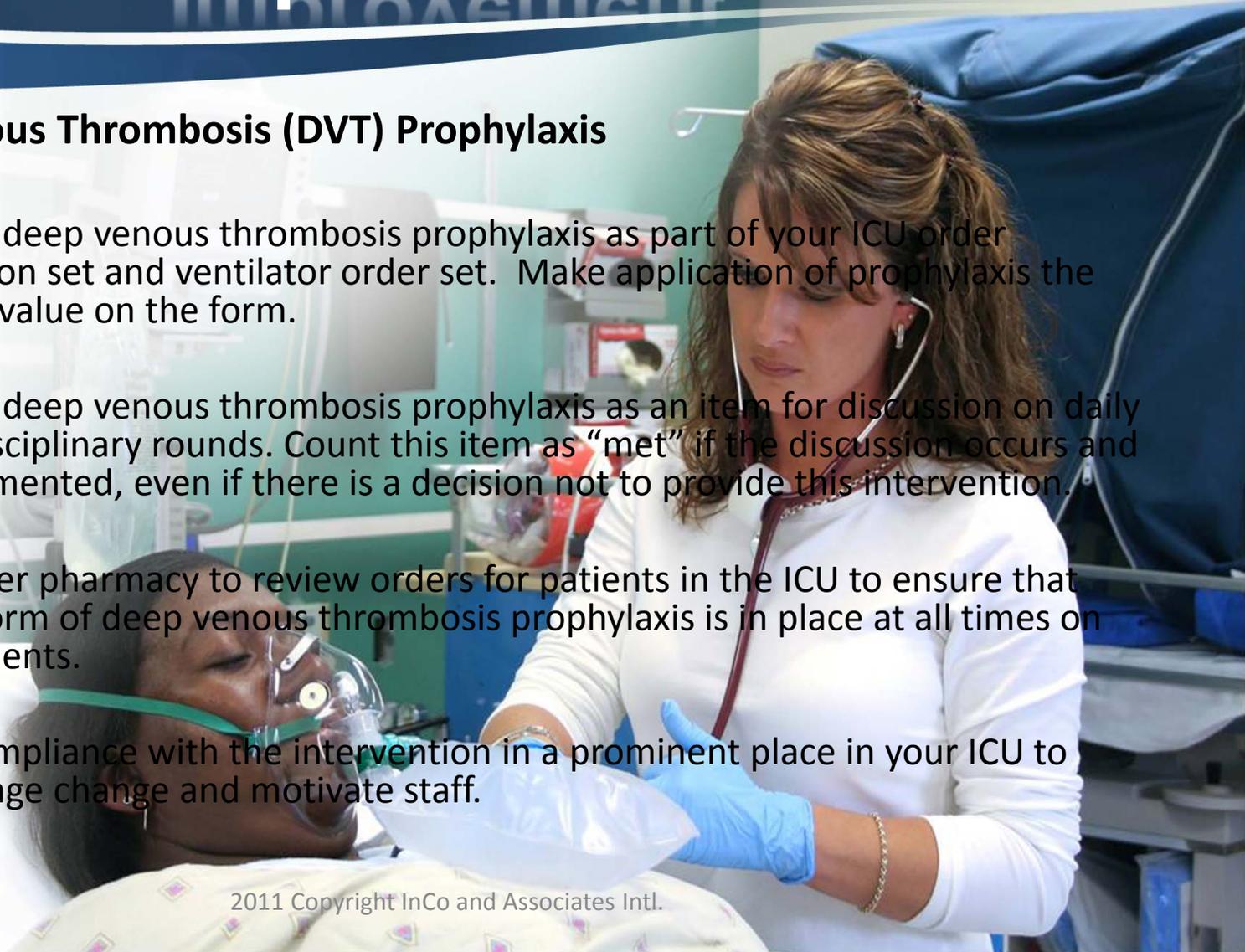
PEPTIC ULCER PREVENTION

- Include peptic ulcer disease prophylaxis as part of your ICU order admission set and ventilator order set. Make application of prophylaxis the default value on the form.
- Include peptic ulcer disease prophylaxis as an item for discussion on daily multidisciplinary rounds. Count this item as “met” if the discussion occurs and is documented, even if there is a decision not to provide this intervention.
- Empower pharmacy to review patients in the ICU to ensure that some form of peptic ulcer disease prophylaxis is provided for all appropriate ICU patients.
- Post compliance with the intervention in a prominent place in your ICU to encourage change and motivate staff.

Changes That Can Result In Improvement

- **Deep Venous Thrombosis (DVT) Prophylaxis**

- Include deep venous thrombosis prophylaxis as part of your ICU order admission set and ventilator order set. Make application of prophylaxis the default value on the form.
- Include deep venous thrombosis prophylaxis as an item for discussion on daily multidisciplinary rounds. Count this item as “met” if the discussion occurs and is documented, even if there is a decision not to provide this intervention.
- Empower pharmacy to review orders for patients in the ICU to ensure that some form of deep venous thrombosis prophylaxis is in place at all times on ICU patients.
- Post compliance with the intervention in a prominent place in your ICU to encourage change and motivate staff.



Reference/Resources

- www.hai.org
 - Best Practice documents





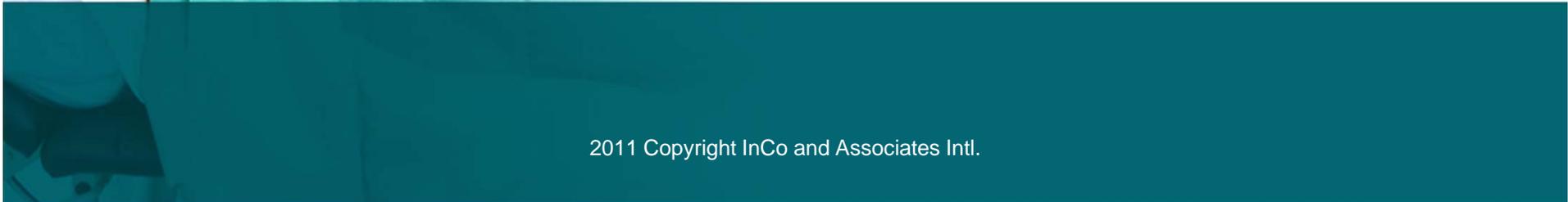
InCo and Associates International
www.incoandassociates.com
8082825738

QUESTIONS

2011 Copyright InCo and Associates Intl.



Surgical Site Infections





- Burden of SSIs as complications in acute care facilities.
 - a. SSIs occur in 2%-5% of patients undergoing inpatient surgery in the United States.
- Approximately 500,000 SSIs occur each year.





Outcomes Associated with SSIs

- Each SSI is associated with approximately 7-10 additional postoperative hospital days.
 - Patients with an SSI have a 2-11 times higher risk of death, compared with operative patients without an SSI.
- Seventy-seven percent of deaths among patients with SSI are directly attributable to SSI
- Attributable costs of SSI vary, depending on the type of operative procedure and the type of infecting pathogen; published estimates range from \$3,000 to \$29,000.
- *SSIs are believed to account for up to \$10 billion annually in healthcare expenditures.*



Methods for Surveillance of SSI

- Direct Method
 - Daily observation
 - Impractical
- Indirect
 - Review of lab reports and pt. medical records
 - Surgeon/patient surveys
 - Readmission screening
 - Coding or operative reports
 - Reliable
- Post discharge surveillance
 - No standardized or reliable method has been established
- SSIs managed in outpatient setting –superficial
- Readmissions – deep incisional and organ/space infections

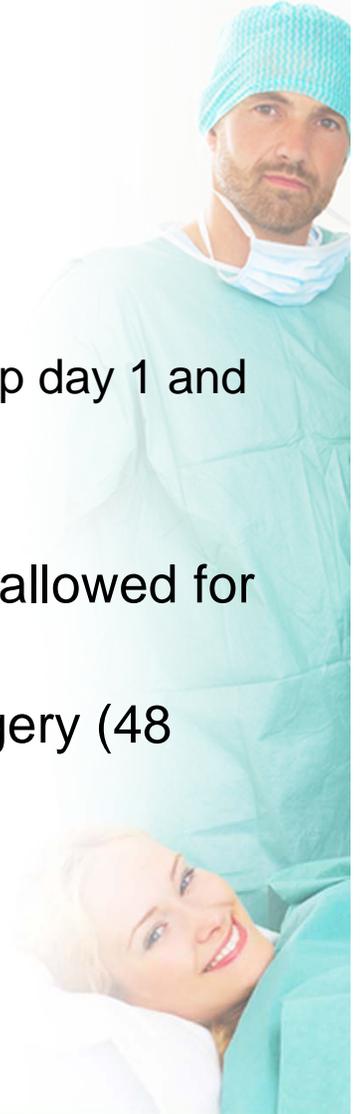




Surgical Improvement Project 2003

- Performance Measures

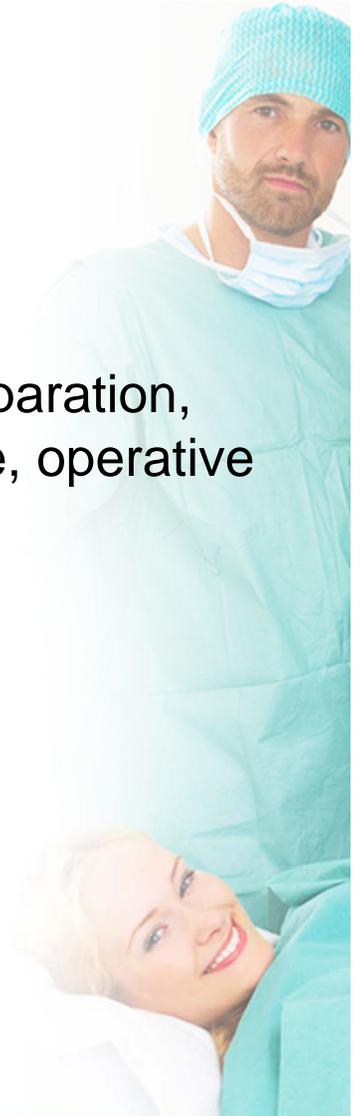
- Proper hair removal
 - Clipper or depilatory method
- Controlling blood glucose levels in CABG patients
 - 6am blood glucose levels lower than 200 mg/dL on postop day 1 and 2 – day of surgery is postop day 0
- Normothermia for patients have colorectal surgery
- IV antibiotics within 1 hour before incision (2 hours are allowed for vancomycin and fluoroquinolones)
- Discontinue use of antibiotics within 24 hours after surgery (48 hours is allowable for CABG procedures)





Risk Factors

- Intrinsic
 - Age, glucose control, obesity, smoking cessation, immunosuppressive medication
- Extrinsic
 - Hair removal, preop infections, surgical scrub, skin preparation, antibiotic time, choice, duration, surgeon skill/technique, operative time
- Operating room characteristic
 - Ventilation
 - Traffic
 - Environmental surfaces
 - Sterilization of surgical equipment





Education

- Surgeons and Perioperative personnel
- Patients and families
 - What you need to know about infections after surgery fact sheets
 - <http://www.ihi.org/NR/rdonlyres/0EE409F4-2F6A-4B55-AB01-16B6D6935EC5/0/SurgicalSiteInfectionsPtsandFam.pdf>
 - Surgical Care Improvement Project consumer info sheet (available at: http://www.ofmq.com/Websites/ofmq/Images/FINALconsumer_tips2.pdf)





Unresolved Issues

- Preoperative bathing with chlorhexidine (CHG)
- Routine screening for MRSA
 - Routine decolonization
- Maintaining oxygenation post colorectal procedure
- Maintaining normothermia post colorectal procedure
- Perioperative intranasal and pharyngeal CHG treatment post cardiothoracic procedures





Performance Measures

- Process measures
 - Correct type of antibiotic
 - Administration time of antibiotic
 - Discontinuation of antibiotic





Calculations

- **Calculating infections**

Number of patients who appropriately received antibiotic prophylaxis
Total number of selected procedures performed X 100 = %

- **Compliance with hair-removal guidelines**

Number of patients with appropriate hair removal X 100 = %
Total number of selected operations performed

- **Compliance with perioperative glucose control**

Number of patients with appropriately maintain serum glucose at 6am on both postoperative day 1
and day 2 after cardiac surgery X 100 = %
Total number of cardiac procedures performed





Outcome Measures

- Use NHSN definitions and risk adjustment methods

Number of patients with surgical site infections after selected operations

Total number of selected operations performed

X 100 =%

- Surgeon Infection Rates

Number of SSI per surgeon

Number of like procedures done by the surgeon X 100 = %





External Reporting

- Hospital-Infection Control Practices Advisory Committee
 - Healthcare-Associated Infection Working Group of the Joint Public Policy Committee
 - National Quality Forum
- 
- 



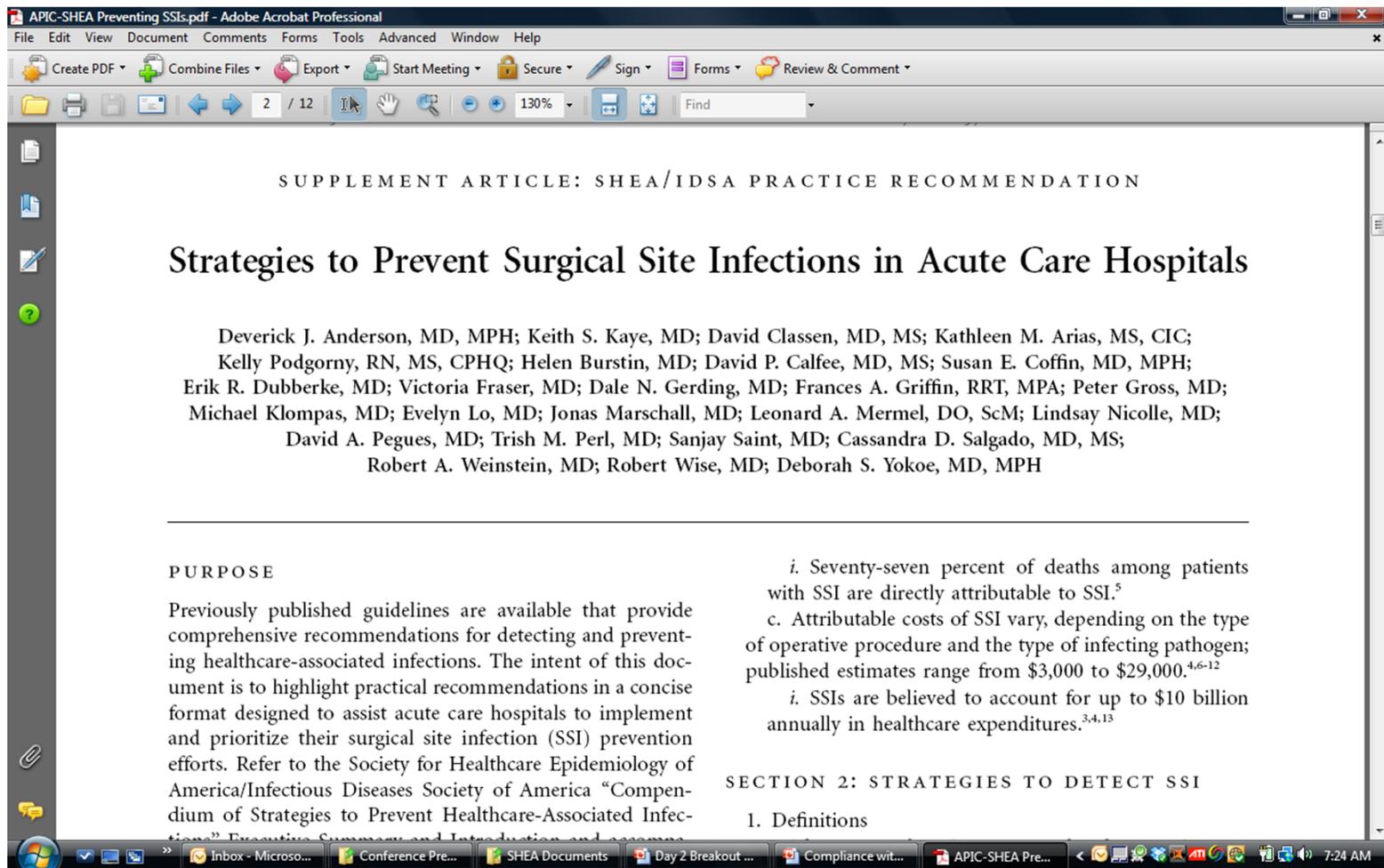
State and Federal Requirements

- Federal
 - Hospitals that receive Medicare reimbursement must report quality measures required by CMS
- State
 - Data required by state





SHEA/IDSA Practice Recommendation



APIC-SHEA Preventing SSIs.pdf - Adobe Acrobat Professional

File Edit View Document Comments Forms Tools Advanced Window Help

Create PDF Combine Files Export Start Meeting Secure Sign Forms Review & Comment

2 / 12 130% Find

SUPPLEMENT ARTICLE: SHEA/IDSA PRACTICE RECOMMENDATION

Strategies to Prevent Surgical Site Infections in Acute Care Hospitals

Deverick J. Anderson, MD, MPH; Keith S. Kaye, MD; David Classen, MD, MS; Kathleen M. Arias, MS, CIC; Kelly Podgorny, RN, MS, CPHQ; Helen Burstin, MD; David P. Calfee, MD, MS; Susan E. Coffin, MD, MPH; Erik R. Dubberke, MD; Victoria Fraser, MD; Dale N. Gerding, MD; Frances A. Griffin, RRT, MPA; Peter Gross, MD; Michael Klompas, MD; Evelyn Lo, MD; Jonas Marschall, MD; Leonard A. Mermel, DO, ScM; Lindsay Nicolle, MD; David A. Pegues, MD; Trish M. Perl, MD; Sanjay Saint, MD; Cassandra D. Salgado, MD, MS; Robert A. Weinstein, MD; Robert Wise, MD; Deborah S. Yokoe, MD, MPH

PURPOSE

Previously published guidelines are available that provide comprehensive recommendations for detecting and preventing healthcare-associated infections. The intent of this document is to highlight practical recommendations in a concise format designed to assist acute care hospitals to implement and prioritize their surgical site infection (SSI) prevention efforts. Refer to the Society for Healthcare Epidemiology of America/Infectious Diseases Society of America "Compendium of Strategies to Prevent Healthcare-Associated Infections" Executive Summary and Introduction and...

i. Seventy-seven percent of deaths among patients with SSI are directly attributable to SSI.⁵

c. Attributable costs of SSI vary, depending on the type of operative procedure and the type of infecting pathogen; published estimates range from \$3,000 to \$29,000.^{4,6-12}

i. SSIs are believed to account for up to \$10 billion annually in healthcare expenditures.^{3,4,13}

SECTION 2: STRATEGIES TO DETECT SSI

1. Definitions

Inbox - Microso... Conference Pre... SHEA Documents Day 2 Breakout ... Compliance wit... APIC-SHEA Pre... 7:24 AM

<http://www.shea-online.org/about/compendium.cfm>

2011 Copyright InCo and Associates Intl.





QUESTIONS

