


HCA's MRSA & CDI "ABC" Programs: Using The New Business Case for Safety, Simplifying the Science and Empowering Patients to Drive Change


Partnering For Quality
9th Annual VIPC&S Conference on Patient Safety
 Richmond, VA – May 21, 2009

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Conclusion (and Overview) . . .

- **"Value-based Healthcare"** provides the emerging business case for safety
 - Creates "constructive tension" for improvement
 - Good quality is good business !
- **Simplifying science (& policy) and packaging it effectively for different audiences can drive behavior change**
- **Empowering patients (and their visitors) is essential**
- **Goal & expectation should be zero preventable infections**

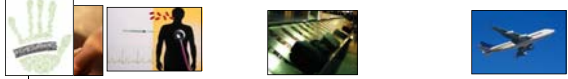


Discussion Details . . .

- **"Value-based Healthcare"** provides the emerging business case for safety
 - CMS "Hospital-Acquired Conditions" & Commercial Payer "Never Events" new non-reimbursement policies
- **Simplifying science & policy and packaging it effectively for different audiences can drive behavior change**
 - **Creating management accountability**
 - Drawing relationship between clinical & financial performance
 - **Creating Clinical Accountability**
 - Using /simplifying the evidence & Making it easier to do the right thing
 - HCA "ABC's" for MRSA & CDI
 - Adding an emotional appeal (the care wanted for one's own family)
- **Empowering patients (and their visitors) is essential**
 - Reinforces desired behaviors

Safety & Quality in Healthcare & Aviation

- Airline Safety: > 99.999999
- Airline Baggage Handling: > 99.999
- B-Blocker p MI: 70 – 99%
- Immunization: 55 – 94%
- MD Hand Hygiene in ICU: 3 – 40%



10⁻¹ 10⁻² 10⁻³ 10⁻⁴ 10⁻⁵ 10⁻⁶

Frequency of Failures Occurring


Value-Based Healthcare: New Value Prop for Clinical Performance

- Until recently, minimal relationship between clinical & financial performance
 - No performance measurement & healthcare represented as different from other industries
 - **Bottom Line: Volume → Revenue**
 - Incentive: **"The More You Do, the Better You Do"**
- **The Era of Value-Based Healthcare**

$$\text{Value} = \frac{\text{QUALITY}}{\text{COST}}$$
- 1) **Value Based Insurance Design (& Purchasing)**
 - Demonstrated successful outcomes for inclusion in networks (Private payors);
 - Employers buying outcomes, not just units-of-services, from Preferred Networks
 - **The New Bottom Line (2) :**
Performance → Volume (Access to Preferred Networks) → Revenue
 - Incentive: **"The Better You Do, Better Volume Growth, The Better You Do"**
- 2) **"Pay-for-Performance" (P4P)**
 - Reimbursement for successful outcome or evidence-based process (Medicare)
 - **The New Bottom Line (1) : Performance → Revenue**
 - Incentive: **"The Better You Do, The Better You Do"**
- 3) **No Reimbursement for Serious Preventable Adverse Events**

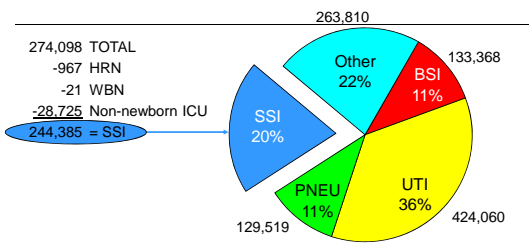
The Epidemic of HAI's Results in . . .

- **1.7 million infections in hospitals**
 - Most (1.3 million) were outside of ICUs
 - 9.3 infections per 1,000 patient-days
 - 4.5 per 100 admissions
- **99,000 deaths associated with infections**
 - 36,000 – pneumonia
 - 31,000 – bloodstream infections
- **Mortality: 99,000 > AIDS + MVA + Breast CA**
- **> \$10 Billion (probably approaching \$20 Billion)**



Wheeler, Edwards, Richards, et al. Pub Health Rep 2007;122:160-6

Calculation of estimates of healthcare-associated infections in U.S. hospitals among adults and children outside of intensive care units, 2002



HRN = high risk neonates
WBN = well-baby nurseries
ICU = intensive care unit
SSI = surgical site infections
BSI = bloodstream infections
UTI = urinary infections
PNEU = pneumonia

Klevens, Edwards, Richards, et al. Pub Health Rep 2007;122:160-6

Table 1. Distribution of top ranking pathogens associated with NHSN reportable HAIs; January 2006 - October 2007

Pathogen (n=33,848) (25,502 infections)	CLABSI		CAUTI		VAP		SSI		Total*	
	N	%	N	%	N	%	N	%	N	%
<i>A. baumannii</i>	252	2.21	109	1.16	498	8.36	42	0.60	902	2.66
CoNS	3900	34.13	234	2.50	79	1.33	965	13.74	5178	15.30
<i>Candida</i> spp.	1342	11.74	1974	21.05	160	2.69	145	2.07	3628	10.72
<i>E. coli</i>	310	2.71	2009	21.42	271	4.55	671	9.55	3264	9.64
<i>Enterococcus</i> spp.	1834	16.05	1393	14.85	77	1.29	788	11.21	4093	12.10
<i>Enterobacter</i> spp.	443	3.88	384	4.10	498	8.36	293	4.17	1624	4.80
<i>P. aeruginosa</i>	357	3.12	938	10.00	972	16.31	390	5.55	2664	7.87
<i>S. aureus</i>	1127	9.86	208	2.22	1456	24.43	2108	30.01	4913	14.51

* Total reflects post procedure pneumonia event as well (not included in this table)

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Source: Hidron et al., abstract presentation, SHEA 2008

Slide: 8

And the Challenge of MRSA . . .

Deadly Bacteria Found to Be More Common

Invasive Methicillin-Resistant *Staphylococcus aureus* Infections in the United States

Klevens RM et al., JAMA 2007;298(15):1763-71.

Schools Try to Allay Fears About Staph

- 2005 Data – Restrictive Case Definition
- 19,000 Deaths
- APIC 2007 MRSA Prevalence Study
 - 46/1,000 (~5%) hospital patients positive
 - 1.2 million cases annually
 - Cost \$35,367/MRSA vs. \$13,973 non-MRSA HA
 - PI: Dr. William Jarvis

1.2 Million U.S. Patients Get Resistant Staph Each Year

CMS Hospital-Acquired Conditions Policy

Medicare Won't Cover Hospital Errors

No pay for 'conditions that could reasonably have been prevented.'

"... A woman shouldn't come into a hospital to deliver a baby and leave with a broken arm."

Expansion of Hospital-Acquired Infections under consideration

- N.B. Expansion to Medicaid occurring by state, and Senator Grassley's legislation seeks to expand nationally

Effective 10/1/08: Hospital Acquired Conditions

- 2008 IPPS Final Rule
 - Foreign object retained after surgery
 - Air embolism
 - Blood incompatibility
 - Pressure ulcer (Stage III & IV)
 - Falls & Trauma (Fracture, Dislocation, Intracranial Injury, Crushing Injury, Burn, Electrical Shock)
 - Catheter Associated UTI
 - Vascular Catheter Associated Infection
 - Surgical Site Infection (Mediastinitis – CABG)
- 2009 IPPS Final Rule
 - Manifestations of poor glycemic control
 - Surgical site infections (Bariatric surgery for obesity, Cervical, Dorsal, or Lumbar fusion/refusion, Shoulder or elbow arthrodesis/arthroplasty)
 - DVT and PE (Total Hip, Total Knee)
- Coding of HAC
 - N = Not present on admission
 - U = Documentation insufficient to determine if condition was present on admission
 - Y = Present on admission
 - W = Based on data and clinical judgment not possible to determine onset
- CMS will not pay for HAC with code N or U
 - Effective with discharges of October 1, 2008

Potential Losses to Revenue for Preventable Events

Effective with 10-1-08 discharges, hospitals must identify all secondary diagnoses as either "Present on Admission" or "Healthcare-Acquired"

Condition	No. of Medicare Cases in Fiscal Year 2008	Average Medicare Payment for Admissions in Which Condition Was Present
Object left in patient during surgery	764	\$61,962
Air embolism	45	\$66,007
Blood incompatibility	33	\$46,492
Catheter-associated urinary tract infection	11,780	\$40,347
Pressure ulcer	322,946	\$40,381
Vascular catheter-associated infection [†]	Unknown	\$64,804*
Mediastinitis after coronary-artery bypass grafting	108	\$104,747
Fall from bed	2,591	\$24,962

* Data are from the Federal Register.
† Data are unknown because a unique code for this condition was introduced for fiscal year 2008.

Rosenthal MB, NEJM. 2007;357(16):1573-75
* insert: Shannon RP, AJMO. 2006;21(6):75-16S

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Monday, May 11, 2009
Slide: 12

American Journal of Medical Quality, Vol. 21, No. 6 suppl, 70-100 (2006)
DOI: 10.1177/1043986206294233
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Economics of Central Line-Associated Bloodstream Infections

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- Average Cost per Patient:	\$91,733
- Average Payment per Patient:	\$56,034
- Average Loss per Patient:	\$26,839

- Removing Payment:	(\$64,894)
- New Average Losses:	\$91,733

Hospital-acquired infections add considerable morbidity and mortality to patient care. However, a detailed economic analysis of these infections on an individual case basis has been lacking. The authors examined both the hospital revenues and expenses in 54 cases of patients with central line-associated bloodstream infections (CLABSI) over 3 years in 3 intensive care units and compared these financial data with patients who were matched for age, severity of illness on admission, and principal diagnosis. The average payment for a case complicated by CLABSI was \$54,034, and the average expense was \$91,733 with gross margin of \$35,839 per case and a total loss from operations of \$1,442,305 in the 54 cases. The costs of CLABSI and the associated complications averaged 4.3% of the total cost of care. The elimination of these preventable infections constitutes not only an opportunity to improve patient outcomes but also a significant financial opportunity.

Key Words: central line-associated bloodstream infections • hospital-acquired infections • hospital economics • payment methodologies

The Financial Consequences of HAI's Are Clear: APIC Review of HAI Cost Myths

An APIC Briefing
February 2007
Dispelling the Myths!
The True Cost of Healthcare-Associated Infections

MYTHBUSTERS

MYTH BUSTED

The large impact these cases have on costs and operating margins is even more significant. A recent study of 1.69 million admissions from 77 hospitals found that patients with a healthcare-acquired infection reduced overall net inpatient margins by \$286 million or \$5,018 per infected patient. The study found that the average additional incremental direct cost for patients with an HAI was \$8,832¹.

Myth: CMS "CC" code makes HAI cost-neutral or "profitable"

Are "Hospital Acquired Conditions" Under "Provider" Control?

Wrong Question!

Are We Doing All We Can To Prevent Adverse Events That Evidence Suggests Are Always, Largely or Generally Under Our Control?

[c.f., Michigan Keystone Project]

Michigan Keystone ICU Project: Reducing Central Line Infections

Time period	Median CRBSI rate	Incidence rate ratio
Baseline	2.7	1
Peri intervention	1.6	0.76
0-3 months	0	0.62
4-6 months	0	0.56
7-9 months	0	0.47
10-12 months	0	0.42
13-15 months	0	0.37
16-18 months	0	0.34

N Engl J Med 2006;355:2725-32

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BSI

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In late 2006, HCA Set A Goal for Zero HAI's, Focusing on MRSA

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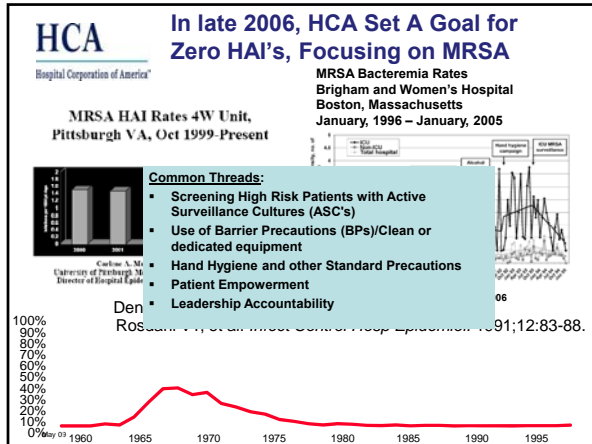
MRSA Bacteremia Rates Brigham and Women's Hospital Boston, Massachusetts January, 1996 – January, 2005

Carlson A. Mox, M.D., M.K.
University of Pittsburgh Medical Center, Infectious Disease
Division of Hospital Epidemiology, Infectious Control

Susan Huang, M.D., M.P.H. et al
Clinical Infectious Diseases 43:971, 2006

Denmark
Rosdahl VT, et al. *Infect Control Hosp Epidemiol.* 1991;12:83-88.

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ABCD

REDUCING THE RISK OF MRSA IS THIS SIMPLE.
(And can help prevent other infectious disease.)

ACTIVE SURVEILLANCE
Cultures high-risk patients and place them on contact precautions so that MRSA does not spread.

BARRIER PRECAUTIONS
Gowns, gloves, and hoods are suitable for patient, staff, and visitor transmission prevention. These can break incorrectly.

COMPULSIVE HAND WASHING
The second and most effective way to stop MRSA and other healthcare-associated microbes from spreading.

DISINFECTION OF ENVIRONMENTS
Thorough cleaning and appropriate use of products are absolutely necessary to reduce the transmission of MRSA.

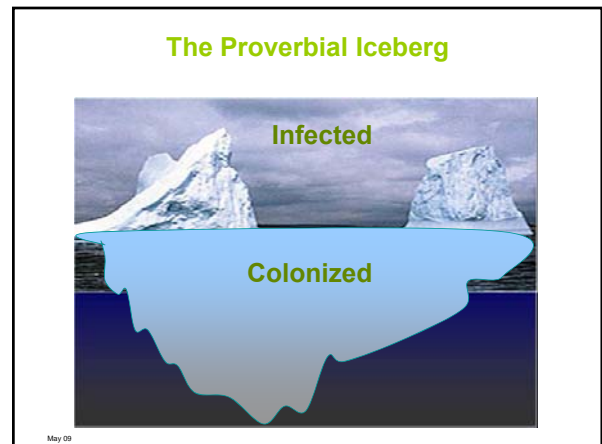
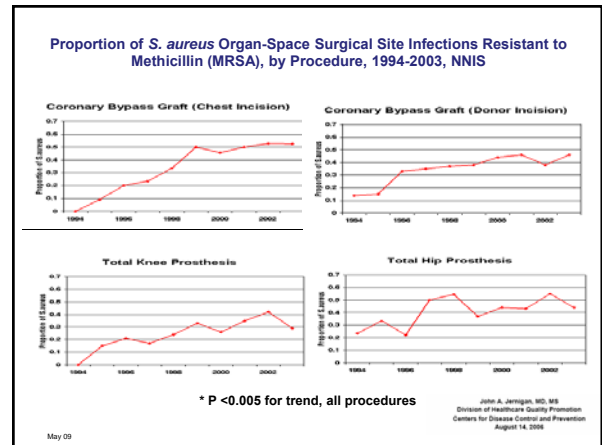
Stopping MRSA is in your hands.

HCA

Targeted Active Surveillance (TAS) in HCA

- HCA approach includes screening of
 - Patients at **high risk for carrying MRSA** (e.g., Nursing Home & ICU admits, transfers)
 - Patients at from MRSA **high risk for serious complication** (e.g., CABG, Ortho) from MRSA
- NB: Primarily using chromographic agar; some use of PCR for improved TAT

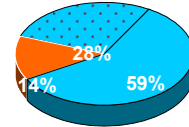
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Science Re-education: What MRSA Carriers Look Like



Most Healthcare-Associated Invasive MRSA Infections Have Their Onset Outside of the Hospital



- Community-Associated
- Healthcare-Associated (community-onset)
- Healthcare-Associated (hospital-onset)

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Source: ABCs Population-based surveillance System, *Klevens et al. JAMA 2007*

Slide: 26

Active Surveillance Debate: To Screen or Not to Screen?

- Literature Ambiguous . . .
- Professional Society / Authority Recommendations Mixed
 - SHEA: Original (2003) Guidelines Endorsed Active Surveillance
 - CONCLUSION: Active surveillance cultures are essential to identify the reservoir for spread of MRSA and VRE infections and make control possible using the CDC's long-recommended contact precautions (*Opport. Control Hosp Epidemiol 2003;28(2):386*).
 - Highly Political, recanted to some degree
 - SHEA/APIC Statement that "screening should not be legislated" misconstrued as recommendation against screening. In fact, it was a recommendation against legislating the practice of medicine!
 - SHEA / APIC Talking Points:
 - While reducing the burden of antimicrobial-resistant pathogens including MRSA and VRE is of preeminent importance, APIC and SHEA do not support legislation to mandate active surveillance cultures for MRSA, VRE or other antimicrobial-resistant pathogens.

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HCA Literature Remains Confusing

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Universal Screening for Methicillin-Resistant *Staphylococcus aureus* at Hospital Admission and Nosocomial Infection in Surgical Patients

Conclusion: A universal, rapid MRSA admission screening strategy did not reduce nosocomial MRSA infection or length of stay in surgical patients.



Universal Surveillance for Methicillin-Resistant *Staphylococcus aureus* in 3 Affiliated Hospitals

Conclusion: Universal surveillance for MRSA in 3 affiliated hospitals was associated with a decrease in MRSA colonization and a decrease in MRSA infections.



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Evidence for Active Surveillance is Class Ib, when other interventions inadequate. (Class Ib, in general)

Management of Multidrug-Resistant Organisms in Healthcare Settings, 2006



Prevention and Control of MDRO transmission

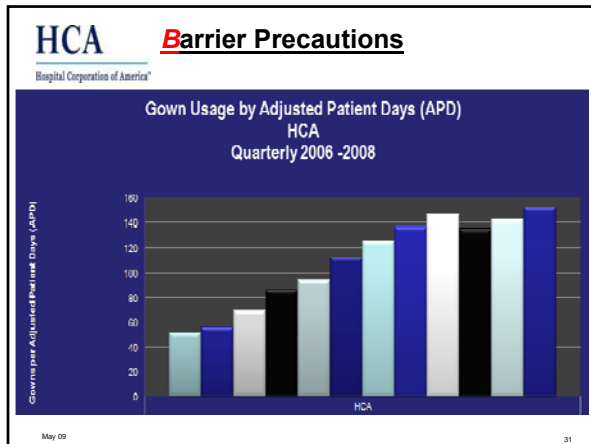
Overview of the MDRO control literature. Successful control of MDROs has been documented in the United States and abroad using a variety of combined interventions. These include improvements in hand hygiene, use of Contact Precautions until patients are culture-negative for a target MDRO, active surveillance cultures (ASC), education, enhanced environmental cleaning, and improvements in communication about patients with MDROs within and between healthcare facilities.

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HCA Barrier Precautions

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- Isolation of positive patients
- Gown, gloves, and mask with eye protection (per CDC recommendations)
- Standard precautions for all patients
- Pictorial instructions for staff and patients
- Dedicated equipment for MRSA+ patients
- Education on aseptic technique in all areas
- "Ticketing" for non compliance



- ### HCA **Compulsive Hand Hygiene**
- Hospital Corporation of America®
- Culture change seeking 100% compliance
 - Vendor assistance with alcohol gel strategic placement
 - Engage MDs, Nurses, Clinicians through data and evidence
 - Executive walk around scripts
 - Scripted behavioral expectations of caregivers
 - “Ticketing” for noncompliance
 - Positive feedback for compliance through recognition & rewards
 - Reporting to Infection Control Committee (or equivalent), MEC, Board, and staff
 - Encourage patient involvement and questioning of hand hygiene practices of their caregivers
-
- May 09

Handwashing Compliance by Health Care workers: The impact of introducing an accessible, alcohol-based hand antiseptic.

Bischoff WE, Reynolds TM, Sessler CN, Edmond MB, Wenzel RP., *Arch Intern Med.* 2000 Apr 10;160(7):1017-21.

- Under routine hospital conditions handwashing compliance of health care workers including nurses, physicians, and others (eg, physical therapists and radiologic technicians) is unacceptably low.
- Baseline handwashing compliance before and after defined events was 9% and 22% for health care workers in the medical ICU and 3% and 13% for health care workers in the cardiac surgery ICU, respectively.
- Introduction of increasingly accessible, alcohol-based, waterless hand antiseptic revealed significantly higher handwashing rates (P<.05), and handwashing compliance improved as accessibility was enhanced-before 19% and after 41% with 1 dispenser per 4 beds; and before 23% and after 48% with 1 dispenser for each bed.
- HCA added > ½ million hand sanitation stations (to the nearly ½ million existing stations) !

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SAFETY

EMPLOYEES MUST WASH HANDS BEFORE RETURNING TO WORK

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Engaging & Empowering the Patient . . .

Dear Visitor,
Thank you for trusting us to care for your loved one.

We are committed to providing a safe environment for patients and for you. You can help us stop the spread of infections, including MRSA, a serious form of bacteria carried by many healthy people. Use the waterless hand sanitizers throughout the facility before and after contact with patients.

It takes a strong commitment from employees, physicians, and visitors to be successful. We appreciate you helping us improve patient care.

Jonathan B. Proff, MD, PhD, MBA, FACP
Chief Medical Officer & Senior Vice President, Quality
HCA Healthcare

WASH YOUR HANDS.
SAVES YOUR LOVED ONE'S LIFE.

Changing Culture To Empower Patients

© HCA Management Services, LLC 2007

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Goal: Eradicating MRSA & HAI's

HCA MRSA Resources Are Publicly Available at: www.hcahealthcare.com

Stopping MRSA is in your hands.

ABCD

REDUCING THE RISK OF MRSA IS THIS SIMPLE.
(And can help prevent other infectious disease)

A	B	C
Active Surveillance Culture high risk patients and place them on contact precautions as MRSA does not spread.	Antiseptic Gowns, gloves, and masks are available for patient, staff, and visitor. Hand hygiene prevention.	Education and Engagement The easiest and most effective way to stop MRSA and other healthcare associated infections from spreading.
Click Here to Learn More...	Click Here to Learn More...	Click Here to Learn More...
D	E	
Disinfection, Environmental Thorough cleaning and appropriate use of products are absolutely essential.	Facility Cleanability Facility, division, and corporate support of residents' efforts.	Corporate Commitment and Educational Opportunities Corporate communications and educational opportunities regarding MRSA.
Click Here to Learn More...	Click Here to Learn More...	

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Disinfection / Environmental Cleaning

- Pictorial illustrations of proper cleaning techniques
- Appropriate use of cleaning agents and adhering to vendor specifications
 - Timed disinfection that cannot be thwarted
- Dedicated cleaning staff for a specific area to improve accountability

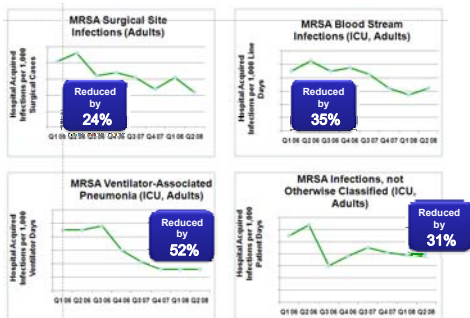
Executive Ownership:
10 “To Do’s / Accountabilities”



- Education on the Finances of HAI's
- Evidence: Success Requires Administrative engagement and physician/nursing champions
 1. Interdisciplinary MRSA/ HAI Taskforce
 2. Physician & Executive Champion
 3. Medical Exec Comm Approved HAI Policy
 4. TAS in Place
 5. CXO “Rounds”
 6. Environmental Services Education
 7. Hand Sanitizer Stations in Place
 8. Measure Std MRSA & Hand Hygiene Rates
 9. Community Education/Engagement Plan
 10. Std Lab Protocols (& No Billing) for

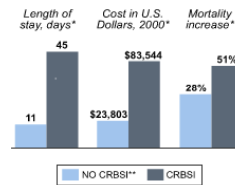


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Reducing MRSA Infection: Progress



Catheter-Related Blood Stream Infections

Implications of catheter-related bloodstream infections



The dearth of standardized training for central line insertions is especially troubling when considering the impact a catheter-related bloodstream infection has on quality, as well as hospital finances. These infections dramatically increase length of stay, cost, and risk of death from an event that is generally considered largely avoidable when the right processes are in place. However, the practical question remains—How should such a training program be deployed, especially when clinicians have varying skill levels? For more information, please see the Clinical Advisory Board study, the [Journey to Zero](#).

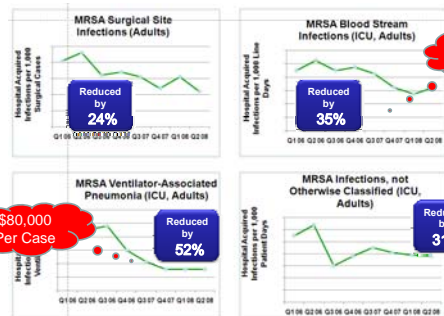
* p<0.001 for all
** Catheter-related bloodstream infection
Source: Warren et al., *Critical Care Medicine*, August 2006; Clinical Advisory Board interviews and analysis

Epidemiology of VAP

- Approximately 300,000 cases annually
- 5–10 cases per 1,000 admissions
- Up to 20 times more common in ventilated patients
- Increases hospitalization costs by \$80,000 per patient

McEachern R, Campbell GD. *Infect Dis Clin North Am*. 1996;12:761-779. George DL. *Clin Chest Med*. 1995;1:23-44. Ollendorf D, et al. Poster presented at 41st annual Interscience Conference on Antimicrobial Agents and Chemotherapy, September 22-25, 2001. Abstract K-1126; Warren DK, et al. Poster presented at 39th annual conference of the Infectious Diseases Society of America, October 25-28, 2001. Abstract 829

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Reducing MRSA Infection: Progress



\$92,000 Per Case

\$80,000 Per Case

HCA Represents Approximately 5% of Inpatient Services in the US

Admission Category	HCA	National	HCA as % of National
Deliveries	249,221	4.3M	5.80%
Inpatient Cardiac Cath	26,691	490,285	5.44%
CABG	12,518	266,072	4.70%
CHF	44,775	1,012,404	4.42%
Joint Replacement	31,128	504,686	6.17%
Total Inpatients	1,765,704	37,067,877	4.76%

*12 Months ending June 30, 2006.

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HCA Contents of MRSA Toolkit

Hospital Corporation of America®

- Sampling of MRSA awareness materials:

- Brochure and Instructions

- Visitor Cards

- A,B,C,D Poster

- Hand Hygiene Poster

- A,B,C,D Flyer

- Hand Hygiene Flyer

- Hand Washing signage

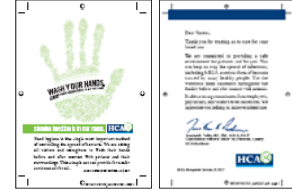
- Hand Washing static clings

- Isolation signage

- Also included:

- CD for reprinting materials

- DVD of the campaign message intended for hospital and medical staff meetings



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MRSA News...

THE WALL STREET JOURNAL
September 17, 2008
Rising Foe Defies Hospitals' War on 'Superbugs'
By Laura Landro

US News
SEPTEMBER 9, 2008
CDC Campaign Targets MRSA Infections

THE NEW YORKER
August 11, 2008
Superbugs
By Jerome Groopman
The new generation of resistant infections is almost impossible to treat.

The New York Times
March 4, 2008
A Bug Rises, and With It a Company
By Andrew Pollack
Patients might not particularly like the new admission procedure at a growing number of hospitals, having what looks like an elongated Q-tip stuck up their noses...

USA TODAY
January 10, 2008
Hospitals marshal resources to wipe out MRSA
By Phil Glatwiler, Special for USA TODAY

THE WALL STREET JOURNAL
SEPTEMBER 3, 2008
Curbing Antibiotic Use In War on 'Superbugs'
By LAURA LANDRO
Hospitals are turning to a new breed of antibiotic... Doctors to use the new agent, "superbug"...



HCA clinical services group
http://www.cleanhandsarecoolhands.com

CLEAN HANDS ARE COOL HANDS

Hey Guys! Think for visiting our site. Make sure you check out all the cool prizes that you can win! Check out our TV spot on the left or the bottom of the screen. And all the fun facts about hand washing that only can share with your friends!

Teachers Parents Kids Zone

CHOOSE A DESTINATION



Mitchel's Clean Hands TV Spot

5/11/2009 Printed Quality Impression Data. Do Not Duplicate 51

Clean Hands Are Cool Hands Campaign

www.cleanhandsarecoolhands.com

- Collaborative education effort aimed at encouraging hand hygiene in school-age children
 - HCA Foundation
 - Steris Foundation
- Messengers:
 - Mitchel Musso,
 - "Hannah Montana" co-star, *Oliver*
 - Dr. Jonathan Perlin
- Materials:
 - PSAs
 - Interactive website
 - Teaching plans
 - Posters
 - Stickers
 - Link to CDC information
- **Impact: 46 million "hits" (impressions)**

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Monday, May 11, 2009 Slide: 52

HCA Process Learnings . . .

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- Prevalence rates
 - HCA preliminary data:
 - Approximately 260 out of every 1000 admissions are high risk (for carrying MRSA and/or bad outcomes from MRSA)
 - Approximately 94 out of every 1000 admissions are colonized or infected
 - Can identify "high-risk" carriers
- Issues conferring physician/clinician resistance
 - Liability from knowing patient is MRSA+
 - Responsibility for addressing MRSA+
 - Logistics (e.g., decolonization)
- Improved Awareness and Focus on Other HAI's
 - Villainizing MRSA expands dialog & action on VRE, ESBL, CDAD, etc.
 - and other Infection Prevention work: antibiotic overuse, VAP, BSI

May 09

HCA Hospital Acquired Infection (HAI) Atlas Website

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HCA

"I'm asking you to help us stop the spread of **CDI**"

Jonathan B. Perlin, MD, PhD, MSHA, FACP
Chief Medical Officer, and President, Clinical Services Group

WASH YOUR HANDS

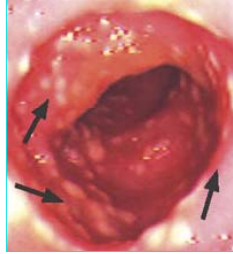
What is it?
Clostridium difficile is a leading cause of hospital-acquired infection.

Healthcare-Acquired Conditions...
Beginning October 2007, we will be implementing new measures to help protect employees and patients.

2008 Flu Vaccine Planning
To help protect employees and patients.

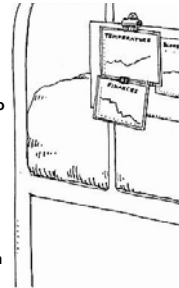
Hospital-Associated *C. difficile* Diarrhea and Colitis

- 10%-30% of healthcare associated diarrhea is caused by *C. difficile*
- 50%-75% of cases of antibiotic-associated colitis are caused by the organism
- 90% of pseudomembranous colitis are caused by *C. diff* with adherent intestinal plaques composed of neutrophils, fibrin, mucin and cell debris in areas of mucosal destruction



Scope of the Problem

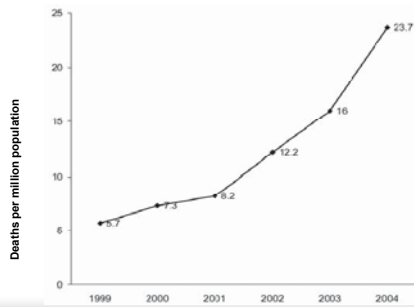
- Leading identified cause of infectious nosocomial diarrhea, 10-12 million cases/yr
- Occurrence of diarrhea in hospitalized patients who receive antibiotics: 3%-29%¹
- Mortality due to CDAD ranges from 6%-30% when pseudomembranous colitis is shown to be present¹
- Hospital costs attributable to *C. difficile* are an estimated \$1,200 per day²
- The average length of stay is prolonged by 8.7 days
- Recurrences typically occur 3-21 d after recovery from first bout (mean 6 d) with rate of subsequent recurrence rate of > 50% often over years
- Annual cost \$1.1 billion/yr



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¹. Aslam S et al. *Lancet Infect Dis.* 2005;5:549-557.
². Weinberg E et al. *Am J Gastroenterol.* 2006;101:S196.
 Slide: 56

Yearly *Clostridium difficile*-related Mortality by Listing on Death Certificates, United States, 1999-2004.



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 From Reddings MD, et al. *Emerg Infect Dis.* 2007;13:1417-1419.

Slide: 57

HCA C. Diff - Infection Control Measures

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- Glove and gown use
- Hand hygiene
- Private room/barrier precautions/isolation (until symptoms resolve or ≥2 days after diarrhea ceases)
- Dedicated equipment when possible
- Environmental cleaning; disinfection with 1:10 hypochlorite in epidemic situations
- Antimicrobial stewardship/restriction



C. difficile – HCA's 2009 "ABC's" Bundle 2

- Antimicrobial Stewardship
- Barrier precautions
- Compulsive hand hygiene
- Disinfection of environment
- Executive ownership



ABCs to Eradication	Key Actions	Key Actors
Appropriate Antibiotic Selection	1. Order set development 2. Medication use evaluation	Pharmacy, Physician Champion
Barrier Precautions	Gowns, gloves	All patient care personnel
Compulsive Hand Hygiene	Hand hygiene, every patient, every time	All patient care personnel
Disinfection of Environment	Cleaning patient environment areas using appropriate agents for the appropriate amount of time	Environmental Services and patient care personnel
Executive Ownership	Oversight of implementation, mitigating barriers	Executive Sponsor

Safety is in Our Hands . . .

HCA MRSA Resources Are Publicly Available at: www.hcahealthcare.com

HCA Stopping MRSA is in your hands

We can't buy enough gowns, gloves and masks not to have a positive ROI... and for the patient, priceless!

WASH YOUR HANDS It's the simplest & the best way

MRSA
What is it?
MRSA is a particularly deadly strain of common bacteria that frequently inhabits the skin or nostrils of healthy people. Because of its resistance to antibiotics commonly used in treatment, MRSA is among the most common and problematic of healthcare-associated infections.

VAP Reduction...
The ventilator bundle is a package of interventions that reduce the risk of the harm associated with being on a ventilator. The risk of VAP is reduced by elevation of the head of the bed, a daily sedation vacation, and daily formal assessment of readiness for extubation.

Blood Stream Infections
Blood stream infections can be prevented by simple practices such as hand hygiene, maximal barrier precautions, infection-free skin antiseptics, central catheter site selection, and daily review of line necessity.

MRSA Quick Links

- [CDC: New guidelines for MRSA](#)
- [CDC: Infection Control Guidelines](#)
- [CDC: Options for a Possible U.S. Influenza Pandemic](#)
- [Hospital Association of America Resources](#)

May 09 www.hcahealthcare.com

Close Calls: The Opportunity to Turn Back Time . . .




Meditech Risk, ASC SQI or New Anonymous Internet Form

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Conclusion . . .

- **“Value-based Healthcare” provides the emerging business case for safety**
 - Creates **“constructive tension” for improvement**
 - **Good quality is good business !**
- **Simplifying science (& policy) and packaging it effectively for different audiences can drive behavior change**
- **Empowering patients (and their visitors) is essential**
- **Goal & expectation should be zero preventable infections**

• Healthcare (Provider) Does Well By Doing Good!