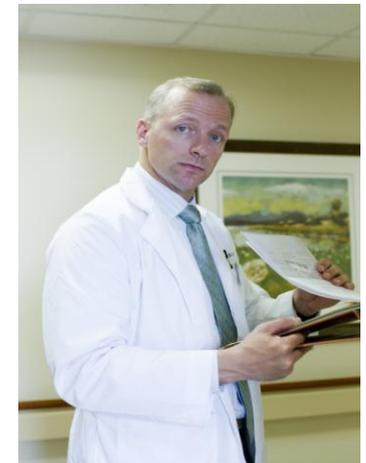


Progress Toward Eliminating Healthcare-Associated Infections

September 23-24, 2010
Key Bridge Marriott - Arlington, VA



Measuring Progress Toward Achievement of
HHS Action Plan Goals: Data Overview

Presentation Overview

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Clostridium difficile Infections

- **2013 Target: 30% reduction in hospitalizations with *C. difficile* per 1,000 discharges**
- Measurement System: AHRQ Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID)
 - An all-payer inpatient care database with ~36 million stays from ~4,300 hospitals across 42 states
 - Hospitals are stratified and discharge weights for each stratum are calculated and applied to achieve national estimates
- Baseline Period: 2008
- **Baseline Measurement: Rate = 8.8 per 1,000 discharges**
- **Current (CY 2009): Rate = 8.9 per 1,000 discharges**
- **Projected (CY 2010): Rate = 9.4 per 1,000 discharges**

Data as of September 2010



Clostridium difficile Infections

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 30% reduction in facility-wide healthcare facility-onset *C. difficile* LabID event**
- Baseline Period: 2009-2010
 - 2009: 250 facilities reporting; 417 locations reporting
 - 2010 (through Aug): 389 facilities reporting; 643 locations reporting

Top 3 Location Types Reporting	2009 No. of Locations (%)	2010 (through Aug) No. of Locations (%)
Facility-wide Inpatient	218 (52)	342 (53)
Medical-Surgical Ward	29 (7)	41 (6)
Medical-Surgical ICU	25 (6)	32 (5)

- Enrollment in NHSN MDRO/CDI module for CDI reporting:
 - Legislative mandate: NY (2009) plus CA and TN (mid-year 2010)
 - Recovery Act-supported: 8 states (2010)
 - CMS QIO use (as pilot): 5 sites (2010)

Data as of September 2010



Central Line-Associated Bloodstream Infections (CLABSI)

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 50% reduction in CLABSI in ICU and ward-located patients**
- Baseline Period: 2006-2008
- Current (CY 2009): SIR = 0.82 = 9,355 / 11,376 CLABSIs
 - **18% reduction from baseline**
 - 1,603 facilities reporting; 4,872 locations reporting; 62% ICU; 6,163,376 central line-days
- Expecting ~4,000 facilities by January 2011

CLABSI Data for Most Frequently-Reporting Location Types: Baseline Period (2006-2008)

Location Type		No. of Locations	No. of CLABSI	Central-Line Days	Rate (per 1,000 CL-days)
ICU	Medical/surgical major teaching	182	1,474	699,300	2.1
	Medical/surgical all others	998	2,579	1,742,419	1.5
	Surgical	208	1,683	729,989	2.3
	Surgical cardiothoracic	203	879	632,769	1.4
	Medical major teaching	125	1,410	549,088	2.6
Ward	Medical/surgical	617	733	618,196	1.2
	Medical	201	422	278,221	1.5
	Surgical	93	189	132,336	1.4

Data as of September 2010



Central Line Insertion Practices (CLIP)

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 100% adherence with central line bundle**
- Baseline Period: 2009
 - 345 facilities reporting; 743 locations reporting
- **Baseline Measure: 92% adherence overall**
 - Hand Hygiene: 98.3%
 - Prep Dry: 98.1%
 - Skin Prep: 98.5%
 - Maximum Barrier Precautions: 95.8%

Location Types Reporting	No. of Locations (%)
Intensive Care Unit (ICU)	523 (70.4)
Non-ICU Location	220 (29.6)

Data as of September 2010



Catheter-Associated Urinary Tract Infections (CAUTI)

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 25% reduction in CAUTI in ICU and ward-located patients**
- Baseline Period: 2009
 - 639 facilities reporting; 2,642 locations reporting; 40% ICU; 3,881,311 catheter-days reported

CAUTI Data for Most Frequently-Reporting Location Types: Baseline Period (2009)

Location Type		No. of Locations	No. of CAUTI	Urinary Catheter-Days	Rate (per 1,000 catheter-days)
ICU	Medical/surgical major teaching	95	597	257,981	2.3
	Medical/surgical all others	385	963	758,501	1.3
	Surgical cardiothoracic	92	306	184,183	1.7
	Surgical	91	607	233,374	2.6
Ward	Medical	213	430	230,952	1.9
	Medical/surgical	622	1,140	712,212	1.6
	Rehabilitation	147	258	68,055	3.8
	Surgical	109	285	155,042	1.8

Data as of September 2010



Invasive MRSA Infections

- **2013 Target: 50% reduction in incidence of healthcare-associated invasive MRSA infections**
- Measurement System: Active laboratory and population-based surveillance for invasive MRSA infections in 9 Emerging Infections Program (EIP) Active Bacterial Core Surveillance (ABCs) catchment areas
- Baseline Period (2007-2008):
 - 26.24 per 100,000 persons
- Current (CY 2009):
 - 22.72 per 100,000 persons
 - **13.4% reduction**

Data as of September 2010



MRSA Bacteremia

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 25% reduction in facility-wide healthcare facility-onset MRSA bacteremia LabID event**
- Baseline Period: 2009-2010
 - 2009: 508 facilities reporting; 888 locations reporting
 - 2010 (through Aug): 612 facilities reporting; 971 locations reporting

Top 3 Location Types Reporting	2009 No. of Locations (%)	2010 (through Aug) No. of Locations (%)
Facility-wide Inpatient	48 (5)	160 (16)
Medical-Surgical ICU	296 (33)	284 (29)
Medical-Surgical Ward	124 (14)	113 (12)

- Enrollment in NHSN MDRO/CDI module for MRSA reporting:
 - Legislative mandate: CA and TN (mid-year 2010)
 - Recovery Act-supported : 6 states (2010)
 - CMS QIO use: 425 sites (2009)
- The option to report facility-wide level LabID Event MDRO blood specimens only was added to the MDRO and CDI Module January 2010

Data as of September 2010



Surgical Site Infections (SSI)

- Measurement System: CDC National Healthcare Safety Network (NHSN)
- **2013 Target: 25% reduction in admission and readmission SSI**
- Baseline Period: 2006-2008
- Current (CY 2009): SIR = **0.95** = 3,930 / 4,144 SSIs
 - **5% reduction from baseline**
 - 946 facilities reporting; 416,341 procedures reported

SSI Data for Surgical Care Improvement Project (SCIP) Procedures: Baseline Period (2006-2008)

SCIP Procedure	No. of SSIs	Validated Parameters for Risk Model
Abdominal aortic aneurysm repair	30	duration of procedure, wound class
Coronary artery bypass graft	1,644	age, ASA, duration of procedure, gender, med school affiliation, age gender (interaction)
Cardiac surgery	229	age, duration of procedure, emergency (y/n)
Colon surgery	1,825	age, ASA, duration, endoscope, med school affiliation, hospital bed size, wound class
Hip prosthesis	1,183	total/partial/revision, age, anesthesia, ASA, duration of procedure, med school affiliation, hospital bed size, trauma (y/n)
Abdominal hysterectomy	389	age, ASA, duration of procedure, hospital bed size
Knee prosthesis	1,108	age, ASA, duration of procedure, gender, med school affiliation, hospital bed size, trauma (y/n)
Peripheral vascular bypass surgery	176	age, ASA, duration of procedure, med school affiliation
Rectal surgery	38	duration of procedure, gender, hospital bed size
Vaginal hysterectomy	122	age, duration of procedure

Data as of September 2010



Surgical Care Improvement Project (SCIP) Process Measures

- **2013 Target: 95% adherence to process measures to prevent SSI**
- Baseline Period: FY 2006-2008
- Current Data: FY 2009
- Data Source: CMS Hospital Compare
http://www.cms.gov/HospitalQualityInits/11_HospitalCompare.asp
- Based on 3,600-3,700 hospitals reporting each quarter since mid-2006

Data as of September 2010



SCIP Performance and Relative Improvement Rates (RIR)

	Baseline			Current	RIR (%)
	FY06 Rate (%)	FY07 Rate (%)	FY08 Rate (%)	FY09 Rate (%)	
SCIP Inf 1: Antibiotic 1 hr prior to incision	83	87	91	96	9
SCIP Inf 2: Appropriate antibiotic	n/a	92	95	98	4
SCIP Inf 3: Antibiotic discontinued	74	80	87	92	15
SCIP Inf 4: Glucose control for cardiac surgery	n/a	n/a	89	92	4
SCIP Inf 6: Appropriate hair removal	n/a	n/a	97	99	2

RIR = (current-baseline) / baseline

Baseline = sum numerators 2006 to 2008 / sum denominators 2006 to 2008

Data as of September 2010

