

PUBLIC REPORTING OF HEALTH CARE ACQUIRED INFECTIONS

Kevin T. Kavanagh, MD, MS, Health Watch USA

Cost of Hospital Acquired Infections – United States

- The CDC estimates that there are 1.7 million hospital acquired infections each year that cause nearly 100,000 deaths. http://www.cdc.gov/ncidod/dhqp/pdf/hicpac/infections_deaths.pdf
<http://www.cdc.gov/ncidod/dhqp/hai.html>
- 2010 AHRQ Report: The average HAI adds \$43,000 to a hospital bill. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb94.pdf>
- It costs our US healthcare system between 28 billion to 33 billion dollars each year. http://appropriations.house.gov/Witness_testimony/LHHS/Richard_Besser_04_01_09.pdf

Cost of Hospital Acquired Infections – Kentucky (Based upon the population)

- 23,000 hospital acquired infections occur each year that cause nearly 1400 deaths.
- The costs to Kentucky's healthcare system is between 392 to 462 million dollars each year.

Kentucky

- MRSA bacteria are responsible for a large percentage of hospital-acquired staph infections. MRSA is the most common HAI in many facilities. <http://www.nlm.nih.gov/medlineplus/ency/article/007261.htm>
- C. Diff is also prevalent. It has been reported that Kentucky has the 6th highest rate of C. Diff infections in the nation at 21.8 infections per 1000 patients. <http://www.ama-assn.org/amednews/2009/images/gprca0601a.pdf>

Paradigm Shift in Thinking - Thomas R. Frieden, MD, MPH, Director of the CDC

"Evidence indicates that, with focused efforts, these once-formidable infections can be greatly reduced in number, leading to a new normal for healthcare-associated infections as rare, unacceptable events."

Maximizing Infection Prevention in the Next Decade: Defining the Unacceptable. Infect Control Hosp Epidemiol 2010;31:S1–S3 <http://www.journals.uchicago.edu/doi/full/10.1086/656002>

The Four Pillars of Control - White Paper Released by the CDC, IDSA, APIC, SHEA, CSTE and ASTHO.

Four Pillars of Control

- Adherence to Evidence Based Prevention Practices
- Align Incentives
- Innovation Research
- Data for Action

Pillar - Align Incentives

The combined tools of healthcare payment, oversight and accreditation, and public reporting are emerging as ways to increase adherence to HAI prevention practices.

Cardo D, Dennehy PH, Halverson P, et al. Moving toward elimination of healthcare-associated infections: A call to action. Infect Control Hosp Epidemiol. 2010 Oct;31:S42 to S44.

http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/RegulatoryIssues/CDC/AJIC_Elimin.pdf

Pillar - Align Incentives

- Payment Incentives – Medicaid Not Paying for HAC. A major initiative by HW USA in early 2008. Joining with Consumer Union, this became federal law in the new healthcare reform bill.
- Oversight and Accreditation – KRS 216B.185 which greatly reduces Kentucky's ability to accredit hospitals.
- Public Reporting -- Kentucky does not require the reporting of individual HAI to the state. <http://cdc.gov/hai/HAIstatePlans.html>

Current Status of Public Reporting

- 28 States require public reporting of Hospital Infection Rates.
- 22 States require use of NHSN (National Healthcare Safety Network).
- 20 States have issued reports.

Sources: "Progress Toward Eliminating Healthcare-Associated Infections." Arlington, VA, Sept 23rd to 24th, 2010 & Maximizing Infection Prevention in the Next Decade: Defining the Unacceptable Thomas R. Frieden, MD, MPH From the Centers for Disease Control and Prevention, Atlanta, Georgia
<http://www.journals.uchicago.edu/doi/full/10.1086/656002>

PUBLIC REPORTING - WHAT OTHERS HAVE STATED

Fiedell Committee has endorsed public reporting of Hospital Acquired Conditions

Office of Healthcare Quality US Dept HHS

"State initiatives on public reporting of healthcare-associated infections play an important role in the Federal effort to prevent healthcare-associated infections."

Don Wright, MD, MPH
Deputy Assistant Secretary for Healthcare Quality
Office of the Assistant Secretary for Health
U.S. Department of Health and Human Services

Joint Commission

In response to the question, "What will really cause a change (in hospital safety)?" Dr. Mark Chassin replied: "That the pressure will have to come from the public in the same way that public pressure created environmental protection laws. Someone needs to call attention to patient safety the way Rachel Carson warned of environmental disaster in (the book) Silent Spring."

Source: Keeping an Eye on Hospital Safety Columbia Journal Review Sept 2, 2010
http://www.cjr.org/campaign_desk/keeping_an_eye_on_hospital_safety.php

Centers for Disease Control

The director of the CDC's HAI prevention program, Dr. Srinivasan, recently stated that the, "CDC does believe that increased transparency, public reporting of healthcare-associated infections is an important part of a comprehensive effort to prevent healthcare-associated infections and eliminate these infections ..."

Source: Media Telebriefing on State Healthcare-Associated Infection Data May 27, 2010, 12 PM
<http://www.cdc.gov/media/transcripts/2010/t100527.htm>

Endorsing Organizations for Public Reporting of HAI

- APIC – Association for Professionals in Infection Control and Epidemiology
- SHEA – Society for Healthcare Epidemiology of America
- IDSA – Infectious Diseases Society of America
- CSTE – Council of State and Territorial Epidemiologists

http://www.healthwatchusa.org/mrsa/pdf_downloads/20090722-Experts_Pubic-Reporting-HAIs.pdf

White Paper – CDC, APIC, SHEA, IDSA & CSTE

"The combined tools of healthcare payment, oversight and accreditation, and public reporting are emerging ways to increase adherence to HAI prevention practices."

Source Nov 9, 2010 White Paper: Moving toward Elimination of healthcare-associated infections: A call to action.
http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/RegulatoryIssues/CDC/AJIC_Elimin.pdf

Public Reporting

- In England – Mandatory Public Reporting. Even have a home MRSA testing kit which citizens can buy.
- In France – Mandatory Public Reporting.

Source: Prevention of Methicillin-Resistant Staphylococcus aureus Infection: Is Europe Winning the Fight? <http://www.journals.uchicago.edu/doi/pdf/10.1086/655997>

WHY DOES THE STATE NEED TO DO THIS?

White Paper – Pillar Data for Action: From the CDC, APIC, SHEA, IDSA & CSTE “Measurement can also provide institutions and the public with information for comparisons across facilities and regions to better understand current risks for HAIs as well as risks over time.”

Source: Oct. 9, 2010 White Paper: Moving toward Elimination of healthcare-associated infections: A call to action. http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/RegulatoryIssues/CDC/AJIC_Elimin.pdf

White Paper – Pillar Data for Action: From the CDC, APIC, SHEA, IDSA & CSTE

- “Public health departments, working with HAI prevention experts, need to establish and to maintain strong programs in HAI elimination.”
- “Data also allow public health officials to identify local and regional facilities requiring improvement.”

Source: Oct. 9, 2010 White Paper: Moving toward Elimination of healthcare-associated infections: A call to action. http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/RegulatoryIssues/CDC/AJIC_Elimin.pdf

Role of Health Dept – Pillar Data for Action

- Community Surveillance
- Track Infections – Must meet Dept. HHS goals
- Kentucky does not track individual HAIs, it only requires reporting of outbreaks.

“Individual HAIs are presently not reportable to public health officials in Kentucky” --

State of Kentucky's Plan of Action filed with the CDC to address HAI. <http://cdc.gov/hai/HAIstatePlans.html>

Kentucky Should Require Public Reporting of HAI

- MRSA improving in States with Public Reporting on the books.
- A CDC recent report showed a 17%-28% decrease in MRSA infections when hospitals from 9 metropolitan areas were surveyed. All areas were from states that had public reporting laws on the books with the exception of Atlanta, home of the CDC.

<http://jama.ama-assn.org/cgi/content/abstract/304/6/641>

Kentucky Should Require Public Reporting of HAI

In Kentucky, we do not have accurate data since individual HAIs are not required to be reported.

Detractors: Let the Feds Do It. –BUT

- Billing data is not as complete as the National Healthcare Safety Network (NHSN) data.
- Billing data is not as standardized as NHSN data.
- Billing data may not capture all events.
- State and Local Health Departments are key in HAI control. They need to receive complete and detailed data in order to plan effective interventions.

And the Federal Program to use NHSN

- Not a Requirement – Tied to Payment for a 2% increase in Medicare Reimbursement.
- Central Line Bloodstream Infections in ICUs – Jan 1, 2011.
- Surgical Site Infections – Jan 1, 2012.
- No requirements for MRSA or C. Diff reporting. Or reporting of other bacteria.

State Reporting

- Not duplicative if the same system is used - NHSN
- States can more easily validate the information.
- States can use the information for their health departments to focus on prevention and to alert the public.

MECHANISM OF IMPLEMENTATION

Detractors: Standardization is lacking & costs too much -- BUT

- More than 3000, out of the approximately 5000 Acute Care Facilities, report using the National Healthcare Safety Network (NHSN).
- This is a standardized reporting service provided free to facilities by the CDC.
- The cost (lives, disability and dollars) of each infection is too costly to NOT do effective prevention and public reporting.

Detractors: Standardization is lacking & costs too much -- BUT

"The U.S. Department of Health and Human Services has a number of supporting programs, such as the Centers for Disease Control and Prevention's National Healthcare Safety Network and the Agency for Healthcare Research and Quality's Patient Safety Organization Network of Patient Safety Databases, which facilitate collecting and reporting standardized data on healthcare-associated infections. These systems are in increasingly common use by healthcare providers and facilities and by State health agencies."

-- Don Wright, MD, MPH

Integrated Healthcare

- Hospital's medical staff is no longer independent.
- Hospital Governance and Quality Issues.
- New Payment System – Insurance Company takes the Event Occurrence Risk, the Provider takes the Outcome Risk. Kentucky Medicaid needs to implement a new payment methodology.

It Can Be Reversed – Pillar Evidence Based Prevention Practices

- Europe starting to reverse the epidemic.
- Bundled approaches of hand hygiene, universal surveillance cultures and contact precautions have been shown to be very effective. (National VA Data & Northwest University.)
- Use of Check Lists to reduce central line catheter infections have been shown to be very effective.

Sources: Prevention of Methicillin-Resistant Staphylococcus aureus Infection: Is Europe Winning the Fight?
<http://www.journals.uchicago.edu/doi/pdf/10.1086/655997>

Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. N Engl J Med. 2006 Dec 28;355(26):2725-32.
<http://www.ncbi.nlm.nih.gov/pubmed/17192537>

Shannon RP, Frndak D, Grunden N, Lloyd JC, Herbert C, Patel B, Cummins D, Shannon AH, O'Neill PH, Spear SJ. Using real-time problem solving to eliminate central line infections. Jt Comm J Qual Patient Saf. 2006 Sep;32(9):479-87. <http://www.ncbi.nlm.nih.gov/sites/entrez/17987871>

Robicsek A, Beaumont JL, Paule SM, Hacek DM, Thomson RB Jr, Kaul KL, King P, Peterson LR. Universal surveillance for methicillin-resistant Staphylococcus aureus in 3 affiliated hospitals. Ann Intern Med. 2008 Mar 18;148(6):409-18. <http://www.ncbi.nlm.nih.gov/sites/entrez/18347349>

Miles F. US Congressional Inquiry 10C1. May 18, 2010.
<http://www.neverevents.org/downloads/MRSA-VA-Data-20100518-Redacted.pdf>

The information in this presentation is the express opinion of Dr Kevin T Kavanagh, MD & Health Watch USA



Kevin Kavanagh <kavanagh.ent@gmail.com>

Requested statement from Dr. Wright

Bradley, Ann (HHS/OASH) <Ann.Bradley@hhs.gov>
To: "kavanagh.ent@gmail.com" <kavanagh.ent@gmail.com>

Tue, Oct 12, 2010 at 1:05 PM

Dr. Kavanagh,

Dr. Wright offers the following statement for your presentation and potential other broadcast uses:

“State initiatives on public reporting of healthcare-associated infections play an important role in the Federal effort to prevent healthcare-associated infections. The U.S. Department of Health and Human Services has a number of supporting programs, such as the Centers for Disease Control and Prevention’s National Healthcare Safety Network and the Agency for Healthcare Research and Quality’s Patient Safety Organization Network of Patient Safety Databases, which facilitate collecting and reporting standardized data on healthcare-associated infections. These systems are in increasingly common use by healthcare providers and facilities and by State health agencies.”

Don Wright, MD, MPH

Deputy Assistant Secretary for Healthcare Quality

Office of the Assistant Secretary for Health

U.S. Department of health and Human Services

Please let me know any time that I can be of further assistance.

Ann

Ann M. Bradley

Public Affairs Specialist

Date: 5/18/2010

Source: Senator McConnell

Inquiry from: (redacted)

Context of inquiry: (redacted) contacted our office seeking the results of a MRSA study (a study regarding staph infections found in VA hospitals).

Response:

PURPOSE: This Veterans Health Administration (VHA) Directive establishes policy for the implementation of a standardized initiative to reduce methicillin-resistant *Staphylococcus aureus* (MRSA) transmissions and infections in populations served by VHA.

BACKGROUND:

a. MRSA is a bacterium that is resistant to multiple antibiotics, causes serious disease, and is often difficult to treat. It is the cause of healthcare-associated infections (HAIs) in a variety of settings and can be cultured from the nares and other sites of patients who are colonized or infected with this organism. It can be transmitted by the hands of patients, health care workers, or by contact with inanimate objects contaminated with MRSA. Such transmission amplifies the number of patients who may become colonized and are then at risk for clinical infection.

b. Increased lengths of stay, morbidity, mortality, and costs have been associated with multidrug-resistant organisms (MDROs), including MRSA. When patients with MRSA have been compared to patients with methicillin-susceptible *Staphylococcus aureus*, MRSA-colonized patients more frequently develop systemic infections, including bacteremia and surgical site infections.

c. MRSA mitigation efforts have been attempted with varying degrees of success. Data supports the use of "bundles" of interventions to achieve successful reduction in HAIs. This same concept is being applied in an attempt to reduce MRSA transmissions and infections despite some difficulties in identifying which components of the bundle are most efficacious.

RESULTS:

The most recent Veteran Health Administration (VHA) evaluation of the data for Methicillin-Resistant Staphylococcus Aureus (MRSA) Healthcare Associated Infections (HAI's) shows the following:

- MRSA HAI rates in the Intensive Care Unit (ICU) setting declined 76% (from 1.62/1,000 Bed Days of Care (BDOC) in October 2007 to 0.39/1,000 BDOC in June 2009)
- MRSA HAI rates in the non-ICU setting declined 28% (from 0.46/1,000 BDOC in October 2007 to 0.33/1,000 BDOC in June 2009)

Program Office: Frank Miles (11)

ATTACHMENT A

METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA) BUNDLE

For details on the Methicillin-Resistant *Staphylococcus aureus* (MRSA) Bundle view the Veterans Administration Pittsburgh Healthcare System Intranet Website for Veterans Administration Pittsburgh MRSA Bundle http://vaww.va.gov/pittsburgh/mrsa/mrsa_bundle.htm

1. DEFINITIONS AND PROCESS

a. **Active Surveillance/Screening.** On admission to units where this Directive has been implemented (with the exception of inpatient psychiatry) patients will have nares swabs performed. If feasible Federal Drug Administration (FDA) approved Polymerase Chain Reaction (PCR) testing will be performed for MRSA, or, if not feasible, standard cultures for MRSA will be conducted. These are screening cultures and are not linked to infection or disease, but rather are done to identify MRSA in patients to attempt to break the chain of transmission. Upon discharge from the units where this Directive has been implemented patient cultures for MRSA will be done.

b. **Contact Precautions.** If patients are found to be MRSA positive, they will be placed in contact precautions (CP) as defined by the Centers for Disease Control and Prevention (CDC). Management will assure that adequate supplies for CP are conveniently available for health care workers to avoid any situations where care could be compromised by lack of CP supplies. Patients will stay in CP while in the hospital unless they become MRSA negative. Patients who remain positive on discharge will be flagged for CP if they are readmitted to the hospital. They will remain flagged until testing indicates they are MRSA negative. In general, attempts at MRSA decolonization are not part of this MRSA initiative.

c. **Hand Hygiene.** Since hand hygiene is critical to preventing transmission of MRSA, the current "Infection, Don't pass It On" campaign should be an integral part of the MRSA initiative (for details see <http://vaww.vhaco.va.gov/phshcg/InfectionDontPassItOn/>) For this MRSA initiative, particular attention is to be paid to hand hygiene for health care workers including compliance with the need for hand hygiene before and after each patient contact.

d. **Culture Change.** While culture change may be beyond the scope of this rapid deployment Directive, as this project gains momentum, it should be the goal to nurture culture change to assure that Infection Prevention and Control is everyone's job and is thus a natural component of care at each patient encounter each day.

2. RESOURCES

a. **Laboratory:** The laboratory must have sufficient resources, based on facility size, complexity, and intensive care unit patient throughput, to accomplish this mission. This includes staff, reagents and equipment as needed. While standard cultures on chromagar may need to be used at the start of this project, PCR technology will likely be the future goal and