Policy Report

Promoting Health Care Transparency and Value

Healthcare Acquired Infections

The Necessity for Prevention & Mandatory Surveillance

No. 2008-PR1 V1.3

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(Total Word Count 1464)

January 21, 2008

Deaths associated with healthcare acquired infections are one of the top 10 leading causes of deaths in the US.

MRSA has a higher case fatality rate than other Hospital Acquired Infections.

Fewer antibiotics are being developed. "Bad Bugs, No Drugs"

CDC calls for: "need for improved prevention and surveillance efforts"

Health Watch USA

Promoting Healthcare Quality, Access & Affordability

The Problem: The Centers for Disease Control reported that in American hospitals alone healthcare-associated infections (HAI) account for an estimated 1.7 million infections and 99,000 associated deaths each year[1] and that HAI are one of the top ten leading causes of death in the United States. According to the CDC:

> "The number of HAIs exceeded the number of cases of any currently notifiable disease, and deaths associated with HAIs in hospitals exceeded the number attributable to several of the top ten leading causes of death reported in the U.S. vital statistics."[2]

The most deadly of the HAIs are the multidrug resistant organisms (MDROs). MDRO infection rates in U.S. Hospitals have steadily increased over the last several decades. For example, methicillin-resistant Staphylococcus aureus (MRSA) was first isolated in 1968. By the 1990s, MRSA accounted for 20 to 25% of all staph infections and by 2003 MRSA accounted for over 59% of hospital acquired staph infections. Similar patterns have been found for other multidrug resistant organisms. Vancomycin resistant enterococci (VRE) increased from less than one percent of enterococcus infections in 1990 to over 28% in 2003.[3] The bacteria are becoming increasingly more resistant to antibiotics and in the 1990's there were virtually no anti-infective agents to treat VRE.[4] In 2004, the Infectious Diseases Society of America reported that more than 70% of HAIs were resistant to at least one drug which is commonly used to treat the organism.[5]

MRSA may behave differently from other MDROs (Multidrug-Resistant Organisms). "Colonized patients more frequently develop symptomatic infections. Furthermore higher case fatality rates have been observed for certain MRSA infections, including bacteremia, poststernotomy mediastinitis, and surgical site infections."[6]

MRSA is rapidly spreading. Once confined to the healthcare setting, MRSA is moving into the community. Klevens, R.M., et al., in JAMA, reported in 2007 that community associated MRSA accounts almost 14% of MRSA infections, with the remainder healthcare associated.[7]

According to the Co-operation Project for Communicable Disease Control in Northern Europe[8] "..the pipeline of new drugs is running out and incentives for pharmaceutical companies to develop new antimicrobials are poor. Resistance costs money, lives and threatens to undermine the effectiveness of health delivery programmes." The Infectious Disease Society of America reported in a paper entitled "Bad Bugs, No Drugs" that in 2002, eighty-nine medications were approved but no new antibiotics. At the time of the report there were only five antibiotics out of 506 agents under development. From 1983 to 1987 there

were sixteen antibacterial agents approved by the FDA. From 2003 to 2004 there were only three antibacterial agents approved by the FDA. The pipeline for new antibiotics is drying up because bacterial resistance limits the market life of the drug and its profitability. [9]

What needs to be done: Control is imperative. The CDC stated that, "The estimates (of the incidence of HAIs) are sobering and reinforce the need for improved prevention and surveillance efforts."[10]

> "Surveillance is an essential tool for case-finding of single patients or clusters of patients who are infected or colonized with epidemiologically important organisms (e.g., … MRSA, VRE, and other MDROs, …) for which transmission-based precautions may be required. Surveillance is defined as the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health."[11]

Control of multidrug resistant organisms can be obtained by a variety of combined interventions. These include hand washing, contact precautions, environmental cleaning, education and active surveillance cultures.[12]

What other states have done: The Consumers Union reported that as of the end of 2007 twenty states have laws requiring public reporting of healthcare acquired infections or infections rates and another three states public reporting of infection information but not necessarily rates. [13]

In response to the growing crisis, in the last two years at least thirteen states have enacted bills requiring mandatory reporting of Healthcare Acquired Infections (HAIs). The vote in favor of passage of these bills was overwhelming.

		House			Senate		
State		**Yea**	**Nay**	**Absent/ Abstained**	**Yea**	**Nay**	**Absent/ Abstained**
Delaware	HB 47	41	0	0	20	0	1
Illinois*	HB 192	115	0		54	3	
New Jersey*	SB 147, SB 2580	72	0	8	36	0	4
New York	AB 8097	147	0	3	61	0	
Pennsylvania*	SB 968	194	9		49	1	
Texas	SB 288	141	0	1	31	0	
Washington*	HB 1106	86	10		49	0	
Connecticut	2006 SB 160	146	0	5	36	0	
Oregon	2007 HB 2524	48	(0)	12	25	2	3
New Hampshire*	2006 HB 1741	Roll Call Vote Unable to be Located Online					
Vermont	Title 18 Chapter 221	Roll Call Vote Unable to be Located Online					
South Carolina	Art 20 Sec 44-7-2420	Roll Call Vote Unable to be Located Online					
Minnesota	2007 HB1079	Attached as Part of a 500 page bill					

In four of these bills (*), standards are set or development of standards mandated for facilities to reduce HAIs. In addition, Minne-

sota gives the Health Department discretion to mandate healthcare facility standards.

What mandatory reporting will do for Kentucky: The advantages to the Commonwealth of a reporting system for healthcare acquired infections and multidrug resistant organisms cannot be overstated. They include:

1. Reporting of cases will facilitate surveillance and the detection of outbreaks.

2. Knowing the antibiotic resistance profile in a region serves as a guide for initial antibiotic administration. Promptly administering an appropriate antibiotic can be lifesaving in a patient with a rapidly progressive infection.

3. Detecting hotspots can allow for intervention with both providers and healthcare facilities to improve both hygiene, along with antibiotic prescription patterns. Limiting antibiotic usage must be included in the control of mutidrug resistant organisms. However, this intervention alone may fail to control resistance once it has emerged.[14] Prescription of unnecessary antibiotics not only fosters the development of MDROs but also increases the financial burden on our public healthcare system.

4. Transparency in infection rates is an important factor in healthcare quality and consumers have the right to know this when they are shopping for healthcare. Infection rates for hospitals are available on- line for the states of:

   - Florida http://www.floridahealthfinder.gov/CompareCare/SelectChoice.aspx
   - Pennsylvania http://www.phc4.org/reports/researchbriefs/082506/
   - Missouri http://www.dhss.mo.gov/HAI/
   - Vermont http://www.bishca.state.vt.us/HcaDiv/HRAP_Act53/HRC_BISHCAcomparison_2007/index_BISHCA_HRC_compar_menu_2007.htm .
   - In 2007, Minnesota passed legislation to implement a free of charge public web-based system to compare hospital infection rates.[15]

5. Savings in healthcare costs by lowering the incidence of infection. The State of Oregon estimates that the cost per stay is at least $32,000 higher for a patient with an HAI compared to a patient without an HAI.[16] Multidrug resistant bacteria organisms cost the United States nearly five billion dollars annually.[17]

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