

SYNERGY: COMBINING EFFORTS FOR HAI PREVENTION

July 2014

News from the Virginia Department of Health's
Healthcare-Associated Infections (HAI) Program

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Notes from VDH

New or updated educational resources are available on the VDH safe injection practices website: <http://www.vdh.virginia.gov/epidemiology/surveillance/hai/SafeInjection.htm>



- ◇ Safe Injection Practices and Safe Blood Glucose Monitoring Practices (Powerpoint, for all healthcare settings)
- ◇ Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard for Assisted Living Facilities (Powerpoint, for assisted living but can be customized to other care settings)

Vertical Versus Horizontal Infection Prevention Approaches

Reviewers of the Society for Healthcare Epidemiology of America (SHEA) "Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals: 2014 Updates" recently released a commentary in *Infection Control and Hospital Epidemiology* on the effectiveness of vertical versus horizontal infection prevention approaches. Their article, "Approaches for Preventing Healthcare-Associated Infections: Go Long or Go Wide," discusses the differences between vertical and horizontal infection prevention concepts and examines the research supporting them. Vertical infection prevention approaches often target

individual pathogens and tend to rely on active surveillance screening and decolonization of infected/colonized patients (ex: MRSA active screening). Horizontal approaches rely on using standard practices that reduce the risk of a number of infections without singling out one pathogen in particular (ex: hand hygiene, chlorhexidine bathing). Both approaches have their benefits and drawbacks, and local factors combined with quality improvement methodology should help facilities determine which methods work best for them.

To read the entire commentary, visit: <http://www.jstor.org/stable/full/10.1086/676535>.

Increase in Carbapenem-Resistant Enterobacteriaceae in Southeastern Community Hospitals

A recent study that collected data on carbapenem-resistant Enterobacteriaceae (CRE) infections from 25 community hospitals in Georgia, North Carolina, South Carolina, and Virginia from 2008 to 2012 found that the number of CRE cases (infection or colonizations) increased five-fold within this time period. This increase was attributed to improved laboratory testing practices as well as an actual rise in incidence.

The majority of cases were healthcare-associated (60% community-onset, healthcare-associated; 34% hospital-onset, healthcare-associated). Of the community-onset, healthcare-associated cases, 56% were in patients admitted from a nursing home or other extended care facility.

To read the article in *Infection Control and Hospital Epidemiology*, go to: <http://www.jstor.org/stable/10.1086/677157>

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Upcoming Events:

August 15: CMS Quality Reporting Program deadline for acute care (2014Q1 CLABSI, CAUTI, SSI, MRSA and *C. diff* LabID), long-term acute care (2014Q2 CLABSI and CAUTI), and inpatient rehabilitation facilities (2014Q1 CAUTI)

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Council of State and Territorial Epidemiologists Annual Conference Recap

Two members of the VDH HAI team were privileged to attend the Council of State and Territorial Epidemiologists (CSTE) Annual Conference in Nashville in June. Alyssa Parr presented a poster on *Evaluation of Legionellosis Surveillance in Virginia* and Andrea Alvarez led three roundtable presentations: *Prevention of Hepatitis B Outbreaks in Assisted Living Facilities in Virginia*, *Innovating Public Health Response to Healthcare-Associated Infection Outbreaks By Understanding Barriers and Benefits to Electronic Health Record Access*, and *Healthcare-Associated Infections Data Presentation and Reporting Standardization Toolkit*.

Highlights from some of the many HAI-related sessions:

Inter-Facility Communication

Oregon

- First outbreak of carbapenem-resistant *Acinetobacter baumannii* in Oregon involved multiple facilities and was likely spread because of a lack of communication between facilities.
- Lead to the passage of an Oregon Administrative Rule that requires timely written inter-facility communication for multi-drug resistant organisms that require specific transmission-based precautions.
- More information on this law and example transfer forms can be found at:
<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Prevention/Pages/Interfacility-Communication.aspx>.

Illinois

- Illinois Department of Public Health (IDPH) created an Extensively Drug Resistant Organism Registry (XDRO Registry) which, by state law, all acute care, long-term acute care, skilled nursing, and laboratory facilities are required to use to report CRE cases.
- Facilities are also able to query the registry to see if their current patients have ever had a CRE positive test result.
- Registry was created to assist with CRE surveillance in the state and to improve inter-facility CRE communication.
- IDPH plans to expand reporting to the registry for other drug-resistant organisms, though at this time it is limited to CRE only.

Using Quality Improvement Methodology to Address *Clostridium difficile* Infections (CDI) in Long-Term Care/Skilled Nursing Facilities

- Illinois and Connecticut Departments of Public Health reported on using quality improvement strategies to assist long-term care and skilled nursing facilities with *C. difficile* infection prevention.
- Illinois Department of Public Health recruited four hospitals who in turn each recruited three skilled nursing facilities to participate in a CDI prevention collaborative.
 - ◊ Identified issues with culture of safety and systems-level infection prevention at skilled nursing facilities.
 - ◊ Used “Plan, Do, Study, Act” cycle to address processes like hand hygiene, personal protective equipment, and monitoring of environmental cleaning.
 - ◊ Results – 82% of skilled nursing facilities made substantial changes within 60 days.
- Connecticut Department of Public Health recruited 25 long-term care facilities to conduct quality improvement training in an effort to reduce CDI rates.
 - ◊ Used “Plan, Do, Study, Act” cycles, fish-bone charts, aim statements, and other strategies
- Long-term care facilities really liked using the quality improvement tools as long as there was someone onsite who could assist with them.

Summary of 2013 Patient Notification Events in the United States

- CDC provided a summary of the 26 patient notification events that occurred in 2013 due to unsafe injection practices and other infection control lapses; over 33,000 patients were notified during these investigations.
- *Unsafe injection practices* – 11 notifications in 8 states, >10,000 patients notified. Five of these were in nonhospital settings and five involved reuse of insulin pens or syringes.
- *Potentially contaminated reusable devices (bloodborne pathogen risk)* – 8 notifications in 5 states, >5,500 patients notified. Six of these were in nonhospital settings and two involved reuse of lancing devices.
- *Potentially contaminated reusable devices (non-blood borne pathogen risk)* – 3 notifications: lidocaine gel, endoscopes, nasal atomizers
- *Potentially contaminated compounded medications* – 4 notifications (2 multi-state), >14,000 patients notified
- CDC concluded by saying that patient notifications due to infection control lapses continue to increase and efforts are needed to identify triggers for patient notification and best practices.

NHSN Notes

July 2014 NHSN Updates

The latest NHSN e-Newsletter, published this June, mentions several changes to NHSN that were released with NHSN version 8.2. These changes include:

- New Dialysis Component will have a simplified interface tailored to dialysis facility reporting and analysis needs
 - ◊ Facilities mapped as “AMB-HEMO – Outpatient Hemodialysis Center” will be transitioned automatically
- Alerts for unusual antibiotic susceptibility profiles in Patient Safety Component
 - ◊ NHSN will alert users when any of twelve selected unusual susceptibility profiles are reported
 - ◊ Should help provide awareness and encourage better relationships between facilities and their labs
- New Antimicrobial Resistance Option in the Antimicrobial Use and Resistance Module
 - ◊ Electronic data capture and reporting, similar to Antimicrobial Use Option
 - ◊ Focusing on specific pathogens from blood, CSF, urine, and upper respiratory cultures
- Healthcare Personnel (HCP) Vaccination Reporting Updates
 - ◊ Acute care facilities must report influenza summary data for all HCP working in all inpatient or outpatient units that are physically connected to the inpatient acute care facility site and share the same CMS certification number (CCN).
 - ◊ Facilities should also count HCP working in outpatient units/departments that are co-located on the same medical campus as the acute care facility, function as units of the acute care facility, and also share the same CCN.
 - ◊ Inpatient rehabilitation facilities, ambulatory surgery centers, and long-term acute care facilities are also required to report HCP influenza vaccination data for this upcoming influenza season.
- As of July 1st, CMS requires acute care facilities participating in the Hospital Inpatient Quality Reporting Program to enter the Medicare Beneficiary Number (MBN) on all event records for Medicare patients
- To read more about these updates and other NHSN news, visit <http://www.cdc.gov/nhsn/PDFs/Newsletters/June-2014.pdf>

Select NHSN Changes Planned for January 24,

2015 Release (Presented at CSTE Annual Conference and in NHSN June Newsletter)

(NOTE: all items listed are subject to change until the time of release. Some potential changes are still considerations that have not been fully vetted or evaluated.)

- After this update, NHSN hopes to make fewer changes in the next 3 years because they are planning to move to electronic reporting and do not want to tweak definitions too much until this bigger transition occurs
- Providing a set time period during which a lab-confirmed bloodstream infection can be attributed to another infection site
- New urinary tract infection definitions for 2015. Removal of yeast UTIs from the catheter-associated UTI data that are shared with CMS cannot occur until 2016 when new 2015 baseline will be used.
- SSIs: adding “Infection Present at Time of Surgery” variable
 - ◊ For hip replacement (HPRO) and knee replacement (KPRO) procedures (total or partial revision) - new variable to note if the revision is associated with a prior infection at the index joint
- Possible change to assignment of “Date of Event” variable – date when first symptom of criteria was present instead of last symptom
- Simplified central line and catheter days denominator reporting - collect Tues and Thurs instead of every day, but option to collect every day still available
- Updates to LabID Event protocol
 - ◊ Adding option to select “CMS” for LabID so can easily pull the data that produced the standardized infection ratio that was reported to CMS
 - ◊ Adding CRE-Enterobacter to CRE reporting for LabID Event and Infection Surveillance reporting. All three CRE types (*Klebsiella* and *E. coli*) must be monitored together for in-plan reporting.
 - ◊ FACWIDEIN stays the same, but facilities will also report from emergency department (ED) and observational units (to help define community-onset cases better)
 - ◆ ED will need to be mapped – “encounters” as denominator instead of days
 - ◊ Some optional questions added to LabID Event to track patient transfers better:
 - ◆ Where did the patient spend the previous night?
 - ◆ In the past 4 weeks, was the patient at another facility?

A Hygienic Approach to Greeting in Healthcare Settings: The Fist Bump

Results from a recently published article in the August issue of the *American Journal of Infection Control* can be used to promote conversations about hand hygiene in healthcare settings. Mela and Whitworth tout the “fist bump” as a “simple, free, and more hygienic alternative to the handshake.” The fist



bump reportedly transmits one-twentieth the amount of bacteria that a handshake does, and is also preferable to a high-five, which spreads less than half the germs commonly transmitted through a handshake. In all types of greeting, a longer duration of contact and stronger grips were associated with increased transmission of bacteria.

New Treatment Options for Methicillin-Resistant *Staphylococcus Aureus*

Since late May, the Food and Drug Administration (FDA) has approved two new drugs - Dalvance and Sivextro - to treat acute bacterial skin and skin structure infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) and certain other bacteria. These drugs were the first to be approved under a new Qualified Infectious Disease Product program that includes incentives to entice pharmaceutical companies to develop drugs to help

fight antibiotic resistance. Dalvance is administered intravenously and Sivextro is available for intravenous and oral use. FDA news releases on these drugs are available at:

- <http://www.fda.gov/newsevents/newsroom/pressannouncements/ucm398724.htm>
- <http://www.fda.gov/newsevents/newsroom/pressannouncements/ucm402174.htm>

New Antimicrobial Stewardship Toolkit from American Hospital Association

The American Hospital Association (AHA), in partnership with several other national organizations, has compiled numerous resources into an antimicrobial stewardship toolkit entitled “Appropriate Use of Medical Resources.” The toolkit is composed of three sections: 1) [Hospital and Health System Resources](#) –resources for those beginning

a program or for those who want to enhance an existing program; 2) [Clinical Resources](#) – clinical evidence for antimicrobial stewardship, webinars, and related articles; and 3) [Patient Resources](#) – FAQs, pamphlets, and handouts.

To learn more and download a copy of the toolkit, visit www.ahaphysicianforum.org/ASP.

E-Learning Tool to Reduce Healthcare-Associated Infections in Long-Term Care

With partial funding from the Association for Healthcare Research and Quality (AHRQ), the Joint Commission has developed a 50-minute e-learning tool for assisted living facility and nursing home staff at all levels. The online module is based on high reliability principles and teaches staff how to prevent healthcare-

associated infections and apply these principles to help achieve safety, quality, and efficiency goals. This educational resource is free and available to all facilities, not only Joint Commission customers.

To access the tool, go to:

<http://www.jointcommission.org/HRipcLTC.aspx>

New Practice Guidelines for Skin and Soft Tissue Infections

The new practice guidelines for the diagnosis and management of skin and soft tissue infections (SSTIs) was published in *Clinical Infectious Diseases* in June updating the previous 2005 guidelines. Members of a panel of national experts convened by the Infectious Diseases Society of America (IDSA) emphasize the importance of the prompt diagnosis of SSTIs, identification of the pathogen involved, and timely and effective treatment.

The increase in numbers and severity of infections in addition to the growing resistance to many of the

antimicrobial agents used for treatment of SSTIs adds to the importance of the new practice guidance. Appropriate treatment guides range from minor superficial infections to life-threatening conditions such as necrotizing infections. Additional guidance is also given specific to immunocompromised host populations.

To view the comprehensive report and the guidelines, please visit: <http://cid.oxfordjournals.org/content/early/2014/06/14/cid.ciu296.full.pdf+html>