

SYNERGY: COMBINING EFFORTS FOR HAI PREVENTION

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

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Notes from VDH

Our newsletter had gone into hibernation for a few months, but like the groundhog, we have re-emerged and are forecasting six more weeks of great partnership and collaboration on infection prevention issues!



A lot has happened over the past few months, and we are excited to share updates and new resources with you.

NHSN Updates—New Year, New Surveillance Definitions

The 2015 National Healthcare Safety Network (NHSN) protocols are in effect and the updates to the NHSN system have been completed. Facilities are now able to enter their 2015 reporting plans, surveys, events, summary data, and procedures. Please remember to enter your 2014 facility survey by March 1, 2015, and update your links to the newest protocols, training materials, and worksheets (see below).

VHQC and VDH hosted a webinar in December 2014 on the NHSN 2015 updates. A link to the archived webinar is available here: <http://youtu.be/maySDLfBDeg>.

The Centers for Disease Control and Prevention (CDC) will have live web streaming available for their NHSN 2015 training course on February 17-19, 2015. Expect an email soon from NHSN with details on how to access the web streaming and training materials.

Related links:

- NHSN Newsletter December 2014: <http://www.cdc.gov/nhsn/PDFs/Newsletters/Newsletter-Dec2014.pdf>
- Patient Safety Component Training: <http://www.cdc.gov/nhsn/Training/patient-safety-component/index.html>
- Patient Safety Component Protocols (a combined 2015 protocol document is expected in early February)

- ◇ CLABSI Event: www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf
- ◇ CAUTI Event: <http://www.cdc.gov/nhsn/PDFs/pscManual/7pscCAUTIcurrent.pdf>
- ◇ CLIP Adherence: http://www.cdc.gov/nhsn/PDFs/pscManual/5psc_CLIPcurrent.pdf
- ◇ SSI Event: <http://www.cdc.gov/nhsn/CPTcodes/ssi-cpt.html>
- ◇ MDRO and *C. difficile* Infection: http://www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf
- ◇ Antimicrobial Use and Resistance: <http://www.cdc.gov/nhsn/PDFs/pscManual/11pscAURcurrent.pdf>
- ◇ Ventilator-Associated Events: http://www.cdc.gov/nhsn/PDFs/pscManual/10-VAE_FINAL.pdf
- ◇ Ventilator-Associated Pneumonia Event: <http://www.cdc.gov/nhsn/PDFs/pscManual/6pscVAPcurrent.pdf>
- ◇ Healthcare Personnel Flu Vaccination: <http://www.cdc.gov/nhsn/PDFs/HPS-manual/vaccination/HPS-flu-vaccine-protocol.pdf>

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Upcoming Events:

February 20, 12-1 PM:

APIC-VA Webinar on Ebola Preparedness (registration TBD)

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2013 CDC National and State-Specific HAI Progress Report

In mid-January, CDC released the 2013 National and State HAI Progress Report. This report contains state-specific and national standardized infection ratio (SIR) data for six HAIs: central line-associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), surgical site infections (SSI) following colon surgery and abdominal hysterectomy surgery, methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia (hospital-onset LabID events), and *Clostridium difficile* (*C. difficile*) hospital-onset LabID events.

Compared to the 2013 national SIR, for all infection types except *C. difficile* (hospital-onset events), Virginia hospitals had a lower (better) SIR, although these findings were not statistically significant. The Virginia 2013 hospital-onset *C. difficile* SIR was significantly higher (worse) than the nation.

Compared to Virginia SIRs reported in the prior year, in 2013:

- Virginia hospitals reported no statistically significant change for CLABSI or either of the SSI measures. However, Virginia hospitals observed a 17% increase in the SIR for SSIs following colon surgery compared to

2012. This increase is likely due to several changes to the 2013 SSI surveillance protocol.

- Virginia hospitals reported a statistically significant increase in CAUTIs. This increase may be attributable, in part, to several changes to the 2013 surveillance definitions.

Virginia has made some progress preventing HAIs, but more work is to be done. Hospitals performing worse than the national SIR are encouraged to reach out to other organizations (like VDH, VHQC, VHHA) to participate in prevention collaboratives and work together to identify strategies to reduce HAIs. CAUTI and *C. difficile* are two infection targets that need more improvement.

To view the entire report, go to: <http://www.cdc.gov/hai/progress-report/>

To view the Virginia-specific report: <http://www.cdc.gov/hai/pdfs/stateplans/factsheets/va.pdf>

Influenza Update

Influenza activity became widespread in Virginia the week ending December 13, 2014, and we expect activity to remain at high levels for several more weeks. National and state surveillance data have shown that influenza A (H3N2) viruses are the predominant strain circulating this year. Historically, H3N2-predominant flu seasons have been associated with more hospitalizations and deaths in older people and young children.

Approximately two-thirds of the H3N2 viruses that have been characterized at the CDC to date this season have drifted (are antigenically different) from the virus contained in this year's flu vaccine. Despite the fact the vaccine is not a perfect match to all of the circulating flu strains, annual vaccination is still the **best tool** for prevention of influenza. The vaccine can still offer some protection, and may help to prevent complications or severe illness if flu illness does occur. *Please continue to vaccinate your patients.*

Because of the detection of these "drifted" influenza A (H3N2) viruses, the CDC stresses the importance of prompt use of antiviral medications when indicated for

treatment or prevention of influenza. More information on antivirals is available in a CDC Health Update from January 9, 2015: <http://emergency.cdc.gov/HAN/han00375.asp>

In addition, CDC and VDH are asking clinicians to be on the lookout for parotitis in persons with laboratory-confirmed influenza (e.g. rapid test, PCR, culture). If you have a patient with clinical diagnosis of parotitis or clinical signs and symptoms compatible with parotitis (i.e., "swelling of parotid gland or salivary glands", "blurring of mandibular margin"), **please contact your local health department** (www.vdh.virginia.gov/lhd). The local health department will work with you to collect more information about this patient. Specimens may be requested for further testing.

Thank you for working to prevent the spread of influenza in your facilities and communities!

To read more from the two VDH clinician letters on influenza from December and January, please visit: <http://www.vdh.virginia.gov/clinicians/>

Ebola Virus Disease Updates

Over the fall and into 2015, VDH and healthcare facilities around the Commonwealth have spent a great deal of time preparing for the threat of Ebola virus disease.

Post-arrival active monitoring of travelers

VDH is heavily involved with active monitoring of travelers returning from Ebola-affected countries. More than 500 persons have been a part of Virginia's active monitoring program since it began on October 27, 2014. This involves assessing the traveler's risk exposures, monitoring of the traveler's signs and symptoms during the 21-day incubation period, and coordinating the sharing of information with other jurisdictions if travel to other states or countries occurs during the monitoring period. More information about airport screening and Virginia's active monitoring protocol can be found here: <http://www.vdh.virginia.gov/epidemiology/ebola/BasicAirportProtocol.htm>

Hospital preparedness

CDC has outlined a tiered approach to hospital preparedness to identify which hospitals are able to provide different levels of care for patients being assessed and treated for Ebola virus disease. Frontline healthcare facilities are able to quickly identify and isolate a patient with possible Ebola infection and have a short supply of Ebola personal protective equipment (PPE). The next tier of hospitals are able to provide laboratory evaluation and coordinating of Ebola testing as well as patient care capability for several days until an Ebola diagnosis is confirmed or ruled out.

Ebola treatment centers comprise the final tier of hospitals. There are 48 of these facilities in the nation,

VDH Joins the *One & Only Campaign*

VDH recently joined the *One & Only Campaign* co-led by the CDC and the Safe Injection Practices Coalition (SIPC). The public health effort and campaign serves to raise awareness about safe injection practices among healthcare providers and patients and prevent associated outbreaks of disease.

The campaign provides educational materials for healthcare providers targeting a safe culture of practice. Information is also targeted toward patients to involve and empower them to recognize and speak up regarding safe injection practices.

including two in Virginia: University of Virginia (UVA) Medical Center and Virginia Commonwealth University (VCU) Medical Center. These hospitals are prepared to provide comprehensive care to a patient with Ebola for the duration of the patient's illness. These facilities were visited by an interdisciplinary team of subject matter experts including staff from CDC and VDH.

APIC-VA will be hosting a webinar on **February 20th from 12-1 PM** to discuss hospital readiness. Infection preventionists from UVA and VCU will be sharing their respective facility planning progress. VDH will discuss the process of monitoring healthcare workers in the event that a Virginia hospital treats a patient with Ebola virus disease. Registration information will be shared when it is available.

VDH and CDC resources

The CDC website is updated on a routine basis with resources addressing various components of Ebola preparedness and response, including infection prevention recommendations, laboratory testing, waste management, and PPE: <http://www.cdc.gov/vhf/ebola/>. Some recently added documents include guidance for U.S. laboratories for managing and testing routine clinical specimens when there is a concern about Ebola and considerations for U.S. healthcare facilities to ensure adequate supplies of PPE.

To view the VDH Ebola webpage, go to:

www.vdh.virginia.gov/epidemiology/ebola

Several recent clinicians' letters include Ebola virus updates:

<http://www.vdh.virginia.gov/clinicians/>

Please contact your local health department with any questions about Ebola.

Visit the campaign site to see all of the available resources to support safe injection practices. <http://oneandonlycampaign.org/>. VDH will promote and disseminate new materials from the campaign as they become available.

Also, Premier Safety Institute has added new web resources addressing injection safety. Visit their public site for additional tools to promote safer healthcare:

https://legacy.premierinc.com/quality-safety/tools-services/safety/topics/safe_injection_practices/index.jsp

CRE Prevention in Long-Term Acute Care Hospitals

A new article in *Clinical Infectious Diseases*, titled “Prevention of Colonization and Infection by *Klebsiella pneumoniae* Carbapenemase-Producing Enterobacteriaceae [KPC] in Long-term Acute-Care Hospitals [LTACHs]” describes the use of a bundled intervention in a multi-center study that significantly reduced KPC colonization and infection, in addition to collateral reductions in all-cause bacteremia and blood culture contamination. Compared to the pre-intervention period, the intervention bundle lowered the number of KPC colonizations from four acquisitions per patient-week to two acquisitions per patient-week.

The bundle consists of the following elements:

- KPC screening on admission to the LTACH
- KPC surveillance cultures collected every other week
- Cohorting KPC-positive patients on a specific floor or in a private room
- Healthcare worker hand hygiene at room entrance
- Healthcare worker hand hygiene at room exit
- Healthcare worker donning of gloves and gown before entering KPC-patient room

To read the full article, go to: <http://cid.oxfordjournals.org/content/early/2015/01/26/cid.ciu1173.full.pdf?keytype=ref&ijkey=tTKDbp6XNhnCBY3>

CDC Health Alert Network Advisory: Multistate Measles Outbreak

The CDC recently released a Health Alert Network (HAN) advisory regarding a multistate outbreak of measles associated with travel to Disneyland Resort Theme Parks in California. The outbreak began in December 2014 and at the time of the HAN advisory there were 52 outbreak-associated measles cases in seven states and Mexico. Fifty-five percent of case-patients were unvaccinated and 15% have been hospitalized.

The CDC is encouraging all healthcare providers to make sure their patients are up-to-date with their MMR vaccines and to consider measles as part of the differential diagnosis if a patient presents with fever, rash, and other compatible symptoms. If a healthcare provider suspects their patient may have measles, isolate the patient immediately and report the case to the local health department. To read the January 23, 2015 HAN advisory, go to: <http://emergency.cdc.gov/HAN/han00376.asp>.

Simulated Intravenous Product Used on Patients

The CDC and the Food and Drug Administration (FDA) continue to investigate instances of simulated saline solution from Wallcur (Practi-0.9% sodium chloride) being administered to patients. Healthcare providers and regulatory officials have been informed about this situation via a MedWatch Safety Alert (<http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm428496.htm>) to raise awareness of the potential risk. Several adverse events have been identified in patients who received these products, including fever, chills, tremors, and headache. The saline solution products have been recalled. Customers and distributors who received recalled products have been notified.

Healthcare providers are encouraged to visually inspect all current IV saline solution bags to ensure that none of the bags are labeled “Wallcur”, “Practi-products”, “For clinical simulation,” or “Not for use in human or animal patients.” If any Wallcur training IV product is suspected to have been administered to a patient, please evaluate all new or ongoing symptoms, use appropriate treatment, report suspected cases to the health department, and report any adverse events to FDA’s MedWatch program.

To read a recent FDA update on the investigation: <http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm430360.htm>

APIC-VA 2014 Fall Conference Re-Cap

The Virginia chapter of the Association for Professionals in Infection Control and Epidemiology (APIC-VA) held its annual educational conference on October 17, 2014, in Richmond, Virginia. The one-day conference was filled with pertinent infection prevention topics for over 90 attendees. The conference was preceded by a one-day training for infection preventionists who are preparing for board certification in infection prevention and control (CIC).

APIC-National's past president, Patti Grant, opened the conference day speaking to the challenges and changes in infection prevention and shared successful steps and strategies to assist the IPs in their roles. Ms. Grant also addressed innovative approaches to provide education to healthcare personnel.

Dr. William Rutala, a national and international expert in the field of environmental disinfection and sterilization, shared current issues and new technologies in those subject areas. Addressing the role of the environment in disease transmission, Dr. Rutala presented information related to progressive and new methods in the 21st century that assist in decreasing the spread of HAIs.

Dr. Rebekah Moehring, infectious disease specialist from Duke University Medical Center, addressed the elements of a successful antimicrobial stewardship program and the important collaboration with the infection prevention team. Dr. Moehring noted antimicrobial drug resistance is a serious institutional, regional, and global health threat and emphasized the need to increase safety and improve quality through appropriate use of antimicrobials.

A late breaking session was added to the agenda addressing Ebola virus disease. Representatives from the health department and several IPs from hospitals across Virginia led a roundtable discussion on Ebola. Preparedness at the national, state, and local levels was discussed. Questions from the audience provided a time to share and clarify areas of concern.

In addition to networking opportunities with peers in the field, healthcare vendors shared products and technologies with the attendees.

Plans are underway for the 2015 educational conference to be held in Richmond. Stay tuned for details!

Investing in Infection Prevention: A Cost-Effectiveness Analysis

The January 2015 issue of *American Journal of Infection Control (AJIC)* featured a paper titled: "A decade of investment in infection prevention: A cost-effectiveness analysis". This study looked at outcomes from over 17,000 elderly Medicare patients admitted to 31 hospitals in 2002 and assessed the cost and effectiveness of infection prevention efforts. Additionally, the researchers used an additional five years of Medicare claims data to assess health care costs and outcomes attributed to HAIs.

Multifaceted infection prevention programs contributed to a gain of 15.55 life-years (LYs) and 9.61 quality-adjusted life years (QALYs) for central line-associated bloodstream infections (CLABSI). IP programs added

10.84 LY and 6.55 QALY for patients with ventilator-associated pneumonia (VAP). In addition, in the study population, index admission ICU costs were reduced by nearly \$175,000 for CLABSI and approximately \$163,000 for VAP. The study concluded that multifaceted programs for HAI prevention are cost-effective and confirm the need for continuing investments in HAI prevention efforts. Continuing to effectively utilize evidence-based clinical guidelines, infection prevention bundles, are crucial to reducing HAIs.

To read the article and learn more about the methodology, please visit:

[http://www.ajicjournal.org/article/S0196-6553\(14\)00966-3/fulltext](http://www.ajicjournal.org/article/S0196-6553(14)00966-3/fulltext)

Is your facility interested in joining the Maryland-Virginia HAI Improvement Network? VHQC is actively recruiting facilities in this new quality improvement initiative to work together to reduce HAIs. Participation is free! To enroll or learn more, contact Deb Smith at 804-289-5358 or dsmith@vhqc.org.