SYNERGY: COMBINING EFFORTS FOR HAI PREVENTION

May 2014

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

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Notes from VDH

It was wonderful to see so many infection preventionists at the annual VDH Field Epidemiology Seminar in Williamsburg on May 22nd. We hope you enjoyed learning from the stories that you heard about investigations.

Field Epidemiology Seminar Recap

Virginia's Field Epidemiology Seminar was held in Williamsburg on May 22nd. The annual event hosted a variety of speakers covering recent outbreak investigations and other topics of interest to the disease surveillance Communities. Topics included mumps, cryptosporidiosis, Group A streptococcal infection, brucellosis and more.

Highlights included the presentation by Angela Myrick-West (prepared by Marshall Vogt): "CRE? OMG! Approaching Carbapenem-Resistant Enterobacteriaceae (CRE) Infections in Acute Care Facilities from the Hospital and Public Health Perspectives". The talk outlined how a prompt and thorough response to a case of CRE identified in an inpatient hospital prevented transmission to other patients.

Barbara Downes' lecture "Trekking Into Your Past Can Lead to *Crypto* in the Future" summarized an investigation of gastrointestinal illness among attendees of a youth camp. Although the source of illness could not be identified, campers who washed their hands with soap and water during the camp illness were less likely to become ill. This serves as an important reminder that proper hand washing can have a major impact on disease prevention and transmission.

Norma Jean Young presented "One *Brucella*, Two *Brucella*,…..81 *Brucella*—No: A Brucellosis Investigation in the Laboratory Setting." Laboratory exposures can lead to *Brucella* infection. The presentation reiterated essential laboratory safety procedures and practices. In addition, the talk outlined the important role of coordination between the clinical laboratory, public health, and the state public health laboratory during occupational exposure investigations.

This year's Grayson B. Miller award went to Laura Young, Henrico Health District Epidemiologist. Ms. Young's presentation, "Rushing Alpha Beta Mu(mps): A College Outbreak", outlined the extensive response to a campus-wide mumps outbreak in 2013. Congratulations Laura! (pictured below with Dr. David Trump, VDH Chief Deputy Commissioner for Public Health and Preparedness)

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Upcoming Events:

June 4,5,6: Emergency preparedness workshops for LTC facilities (see pg 5)

June 6-9: National APIC Conference, Anaheim, CA

June 22-25: Council of State and Territorial Epidemiologists Conference, Nashville, TN

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Disease Hot Topics: Measles and Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

Infection preventionists, clinicians, and healthcare providers are encouraged to maintain situational awareness and take action as appropriate about two current disease situations in Virginia and the U.S. If you have questions or need additional information about either of these situations, please contact your local health department.

Measles

Health officials are investigating potential exposures to a second person with measles in the National Capital Region (DC, Maryland, Northern Virginia). This effort expands the recent investigation of a measles case in late April 2014 in Loudoun and Fairfax Counties. The second case of measles was confirmed in a person who was a close contact of the first case. National Capital Region health officials are mounting a coordinated effort to identify people who may have been exposed to this second case. Please refer to the following VDH press release for locations where exposures may have occurred. **www.vdh.virginia.gov/news/PressReleases/2014/052114Measles.htm**
Symptoms associated with these exposures may manifest as late as June 5th. Potentially exposed individuals with questions may call **1-877-275-8343**.

For more information on measles, visit **www.vdh.virginia.gov/Epidemiology/factsheets/Measles.htm**.

Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

Cases of MERS-CoV infection have been identified in the United States among persons who have recently traveled to the Middle East or had exposure to case-patients with MERS. Recent health department guidance (**www.vdh.virginia.gov/clinicians/pdf/MERS-CoV.pdf**) encourages healthcare providers in Virginia to take the following steps to help identify cases of MERS-CoV and prevent the spread of infection:

- ◊ If evaluating a patient with pneumonia or acute respiratory distress syndrome, ask about recent travel to the Middle East and about any health care exposures.
- ◊ Implement standard, contact, and airborne precautions early if you are managing a hospitalized patient with known or suspected MERS-CoV infection.
- ◊ Report to your local health district (Contact information located at: **www.vdh.virginia.gov/LHD/index.htm**) that you are considering MERS-CoV infection. The local health district will work with you to evaluate your patient's clinical status and exposure history to assure the criteria are met for testing by the state public health laboratory (DCLS).

For the most current information and guidance, please visit CDC's MERS website (**www.cdc.gov/coronavirus/MERS/index.html**). Updated infection prevention guidance is available here: **www.cdc.gov/coronavirus/mers/infection-prevention-control.html**

NHSN Notes

The archived video events and materials from the CDC/ NHSN sponsored training course titled "Using NHSN to Accurately Report HAIs," held March 12-14, 2014 are now available at:
http://www.cdc.gov/nhsn/Training/patient-safety-component/index.html

Training topics include: HAI CLABSI Definition with Case Studies, Secondary BSI and NHSN Site-Specific Definitions, Introduction to Analysis: A Focus on Device -associated Data, MRSA Bacteremia and CDI LabID Event Reporting with Case Studies, Advanced Analysis: A Focus on SSI and LabID Data, SSI Surveillance with Case Studies, Evaluating Entered Data for Completeness, Consistency, and Accuracy, HAI CAUTI Definition with Case Studies, Keeping the Public's Trust: How to Communicate about NHSN Data and HAI Prevention, Ventilator-associated Events, and VAE Case Studies.

Continuing education is available: **http://www.cdc.gov/nhsn/Training/continuing-edu.html**.

Questions about the training materials should be directed to nhsntrain@cdc.gov and questions about the protocols should be directed to nhsn@cdc.gov.

AHRQ Carbapenem-Resistant Enterobacteriaceae Control and Prevention Toolkit

The Agency for Healthcare Research and Quality (AHRQ) recently released a toolkit aimed at helping hospitals control and prevent carbapenem-resistant Enterobacteriaceae (CRE) – more specifically CRE with the *Klebsiella pneumoniae* carbapenemase (KPC) resistance mechanism. This toolkit complements the CDC 2012 CRE Toolkit in that it explains how to implement the guidelines that were recommended by CDC for controlling and preventing CRE. AHRQ's toolkit provides instructions on how to carry out a CRE intervention program targeted at KPC, the most common CRE resistance mechanism seen in the United States. The toolkit starts by helping organizations assess their readiness for change and then describes the processes for creating an intervention and setting goals. It offers several tools and resources for implementation as well as methods for process analysis and intervention sustainability. The toolkit is available at **http://www.ahrq.gov/cretoolkit.**

Centers for Medicare & Medicaid Services Proposed Regulations Open for Public Comment

On May 15th, the Centers for Medicare & Medicaid Services (CMS) opened a public comment period on proposed regulations updating the prospective payment systems for acute care hospitals, long-term care hospitals (also known as long-term acute care hospitals), inpatient rehabilitation facilities, and inpatient psychiatric facilities. A summary of the proposed infection-related measures by healthcare settings as well as links to the proposed regulations for each setting are below. To comment on any of the proposed regulations, click on the relevant regulation link and select the "Comment Now" button on the right side of the page by **11:59PM on June 30th**. Final rules are expected to be published by August 1, 2014.

Acute Care Hospitals:

- Hospital-onset MRSA and *C. difficile* infection (labID events) measures added to FY2017 Hospital Value-Based Purchasing Program.
- Surgical site infection measures for colon surgeries and abdominal hysterectomies added to FY2016 Hospital-Acquired Condition Reduction Program.
- Sepsis reduction bundle measure added as a part of a measure set for the FY2017 Hospital Inpatient Quality Reporting Program.
- Number of charts reviewed for CMS HAI validation increased by 1 chart per HAI measure per quarter for a total of 72 charts per year in the FY2017 Hospital Inpatient Quality Reporting Program.
- CMS to receive access from CDC to voluntarily submitted name and race information to assist with validating HAI charts for the Hospital Inpatient Quality Reporting Program.
- Regulation link: **http://www.regulations.gov/#!documentDetail;D=CMS-2014-0051-0002**

Long-Term Care Hospitals (LTCH):

- NHSN ventilator-associated event measure added to FY2018 LTCH Quality Reporting Program. Reporting of ventilator-associated events would begin on January 1, 2016.
- Regulation link: **http://www.regulations.gov/#!documentDetail;D=CMS-2014-0051-0002**

Inpatient Rehabilitation Facilities (IRF):

- Hospital-onset MRSA and *C. difficile* infection measures added to FY2017 IRF Quality Reporting Program. Reporting of facility-wide MRSA bacteremia and *C. difficile* laboratory-identified events would begin on January 1, 2015.
- Regulation link: **http://www.regulations.gov/#!documentDetail;D=CMS-2014-0057-0002**

Inpatient Psychiatric Facilities (IPF):

- NHSN Healthcare Personnel Influenza Vaccination Coverage measure added to FY2015 IPF Quality Reporting Program. Reporting of healthcare personnel influenza vaccination summary data to NHSN would begin for the 2015-2016 influenza season, from October 1, 2015, to March 31, 2016, with a reporting deadline of May 15, 2016.
- Regulation link: **http://www.regulations.gov/#!documentDetail;D=CMS-2014-0055-0002**

Influenza End-of-Season Update: Influenza B

In the United States, the 2009 H1N1 virus has been the predominant circulating virus for most of the 2013-14 flu season, which is approaching its end. However, over the past month and a half there has been a late season wave of flu B virus activity. At this time, flu B viruses are the predominant virus, with the highest levels of activity primarily focused in the Northeastern United States. Virginia has seen a similar pattern with the majority of recent influenza laboratory reports identifying influenza B. Second waves of influenza B virus activity are not uncommon. About 70% of recent B viruses have been like the B virus component of the trivalent flu vaccine. The remaining flu B viruses have been like the second B vaccine component in the quadrivalent flu vaccine.

As late-season influenza B viruses currently predominate in the United States, a new study published by CDC and partners highlights the comparative severity of illness associated with influenza A versus influenza B virus infections. The results of the study showed that among hospitalized adults, flu B viruses caused equally severe disease outcomes and clinical characteristics as flu A viruses. This contradicts a common misconception that flu B viruses are associated with milder disease than flu A viruses.

Study findings prompted the authors to conclude that clinicians should not regard flu B infections as less severe than flu A when considering treatment options. These findings support CDC's existing antiviral treatment recommendations for the treatment of all hospitalized and high risk patients with suspected or confirmed flu infection. **The type of flu virus infection (A or B) should not influence treatment decisions.**

The study looked at the disease characteristics – including the severity of illness – associated with flu A and flu B viruses among hospitalized adults over eight flu seasons (2005-06 through 2012-13). The study found no significant difference in the overall proportion of hospitalizations with an ICU admission by virus type for each season. Results also showed that flu B virus infections caused a similar proportion of deaths as flu A virus infections among hospitalized adults during the study period.

The full article (*Comparing Clinical Characteristics between Hospitalized Adults with Laboratory-Confirmed Influenza A and B Virus Infection*) may be found at: **http://cid.oxfordjournals.org/content/early/2014/05/23/cid.ciu269.full.pdf?keytype=ref&ijkey=eJCAy0Is8NeIDVm.**

Antimicrobial Resistance: Global Report on Surveillance, 2014

On April 30th, the World Health Organization (WHO) released *Antimicrobial Resistance: Global Report on Surveillance 2014*, the first comprehensive WHO report on surveillance of antibacterial resistance. Data were compiled from 114 countries on seven types of bacteria that frequently cause common, serious infections such as bloodstream infections, diarrhea, pneumonia, urinary tract infections and gonorrhea in hospitals and/or in the community. These bacteria were *Escherichia coli* (*E. coli*), *Klebsiella pneumoniae*, *Staphylococcus aureus*, *Streptococcus pneumoniae*, non-typhoidal *Salmonella* spp., *Shigella* spp., and *Neisseria gonorrhea*. Among bacteria that commonly cause infections in hospitals and the community, resistance was widespread (5/6 or 6/6 WHO regions with national reports of 50% resistance or more) for *E. coli* (versus third-generation cephalosporins and fluoroquinolones), *K. pneumoniae* (versus third-generation cephalosporins), and *S. aureus* (versus methicillin). Among bacteria that primarily cause infections in the community, resistance was widespread (5/6 or 6/6 WHO regions with national reports of 25% resistance or more) for *S. pneumoniae* (versus penicillin). The report revealed that key tools to tackle antibiotic resistance–such as basic systems to track and monitor the problem–show gaps or do not exist in many of the countries that reported data to WHO. While some countries have taken important steps in addressing the problem, every country and individual needs to do more. Other important actions include preventing infections from happening in the first place–through better hygiene, access to clean water, appropriate implementation of infection prevention strategies, and vaccination–to reduce the need for antibiotics. WHO is also calling attention to the need to develop new diagnostics, antibiotics and other tools to allow healthcare professionals to stay ahead of emerging resistance.

Healthcare workers and pharmacists are encouraged to help tackle the issue of antimicrobial resistance by:

- ◊ Enhancing infection prevention and control;
- ◊ Prescribing and dispensing antibiotics only when they are truly needed;
- ◊ Prescribing and dispensing the right antibiotic(s) to treat the illness.

To access the report, go to: **http://www.who.int/drugresistance/documents/surveillancereport/en/**

Catheter-Associated Urinary Tract Infections and Surgical Site Infections: North Carolina-Virginia Hospital Engagement Network Focus Areas for 2014

At the end of 2013, the Partnership for Patients campaign and the 26 hospital engagement networks (HENs) nationwide received word that this work would continue to be funded for a third and final year in 2014. As a condition of that funding, HENs (including the North Carolina-Virginia Hospital Engagement Network, or NoCVA HEN) were asked to put special emphasis on prevention work around catheter-associated urinary tract infections (CAUTIs) and surgical site infections (SSIs). Chief executive officers from all 34 Virginia hospitals participating in the NoCVA HEN signed a written commitment to focus on CAUTI prevention as part of the enrollment renewal process at the beginning of 2014.

Nationally, the CAUTI rate has not improved much during the first two years of the Partnership for Patients campaign, and in some cases, it is getting worse. SSIs, particularly those associated with abdominal hysterectomy procedures and colon procedures, have also not improved much during the first two years in relation to some of the other adverse events areas that are the focus of the campaign. However, data available in 2014 are showing that progress is now being made in the reduction of SSIs.

Preventing HAIs and sustaining that improvement over time remains a challenge for all healthcare settings. The NoCVA HEN continues to support its hospitals in their efforts by offering frequent webinars and networking calls that focus on best practices, the sharing of hospital success stories, and reaching out with individualized coaching to aid hospitals that are struggling to meet improvement targets. In addition, NoCVA HEN leadership offers these key strategies to hospitals that are working on reducing these HAIs:

1. **Know your data**. Data pulled from electronic sources need to be validated. Conduct thorough event investigations to determine root causes and contributing factors when infections occur.
2. **Know your goals.**
3. **Establish a written action plan**, including best practices, accountabilities and timeline.
4. **Ensure wide communication** to all throughout the organization, including Board of Directors. Make the events "real" by engaging patients and families in telling their stories.
5. **Evaluate and ensure effectiveness of interventions**; do not stop at compliance monitoring. Conduct frequent walk-arounds to observe actual practices; talk to staff to learn what the challenges and barriers are; make sure that attention to factors that affect HAIs are part of the daily rounding process.

SHEA White Paper: Recent Advances in HAI Prevention and a Roadmap for HAI Research

The May 2014 issue of *Infection Control and Hospital Epidemiology* (ICHE) features a white paper from the Society for Healthcare Epidemiology of America (SHEA) Research Committee titled "The Evolving Landscape of Healthcare-Associated Infections: Recent Advances in Prevention and a Road Map for Research." This paper updates a previous 2010 SHEA research committee document that highlighted the need for a national approach to healthcare-associated-infections (HAIs) and a research agenda to address this issue.

The 2014 road map for research is noted to highlight recent studies that have advanced our understanding of HAIs, the establishment of the SHEA Research Network as a collaborative infrastructure to address research questions, prevention initiatives at state and national levels, changes in reporting requirements, and new patterns in antimicrobial resistance.

Prioritized research topics include the prevention of multidrug -resistant gram negative bacteria, implementing effective antimicrobial stewardship strategies, preventing the spread of methicillin-resistant *Staphylococcus aureus*, developing strategies to ensure adherence to appropriate hand hygiene practices, and preventing *Clostridium difficile* in healthcare settings.

To access this white paper and learn more about the research and prevention of HAIs in healthcare settings, please visit: **www.jstor.org/stable/10.1086/675821**

Emergency Preparedness Workshop for Extended Care Facilities
June 4, 5, or 6, 2014

Who Should Attend?

Long-term care facility employees will benefit from this training, to include:

1. Administrators & Administrative Staff
2. Directors of Nursing
3. Nurses
4. CNAs
5. Facilities Managers and Staff
6. Maintenance Managers & Staff
7. Health Services Directors
8. Resident Services Directors
10. Fire/EMS
11. Emerg. Mgrs.
12. Public Health
13. Hospitals

Be Prepared and Share with others!

Includes Certificate of Completion

This interactive Guided Discussion will help you make decisions about:

1. Disruption to normal operations
2. Sustained outage of critical resources
3. Unknown hazard
4. Shelter in place or evacuation decision scenarios
5. Public and internal messaging
6. Shelter in place or evacuate decision scenarios

You are invited to a training exercise focused solely on emergency preparedness for extended care facilities. This free one-day course is tailored specifically to the unique needs of an extended care facility in the event of an emergency.

This training exercise will include a 4-hour guided discussion tabletop exercise professionally facilitated, and will allow each facility to reference their current Emergency Operations Plans and consult with coworkers and other facilities to practice responding to a scenario. Each portion of the exercise covers the components of the National Preparedness Goals and application of the Incident Command System (ICS) concepts.

Dates: June 4, 5, or 6, 2014 **Time: 9:00 a.m. – 4:30 p.m.**
Locations:
Wednesday June 4 – Union Train Station, 103 River St., Petersburg, VA 23804
Thursday June 5 – Henrico County Public Training Center, Henrico, VA 23294
Friday June 6 – Comfort Inn, 419 N. Agnew St., Burkeville, VA 23922

Register TODAY!
Go to https://va.train.org and enter Course ID # 1044097. Select the date / location that works best for your schedule.

Need to create a TRAINVirginia account? Click here!
If you have registration questions, contact Donald Moore at 804-864-8238 / donald.moore@vdh.virginia.gov

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