

SHARPPS Newsletter

NC ONE & ONLY CAMPAIGN PARTICIPATES IN CDC WEBINAR

On July 26, 2016, the SHARPPS Program will participate in a webinar on injection safety and the One & Only Campaign. The CDC Division of Healthcare Quality Promotion will host the webinar, "Unsafe Injection Stories from the Field." Dr. Zack Moore, SHARPPS Medical Director, will discuss one example of unsafe injection practices that occurred in North Carolina. To register for the free webinar, please visit, <http://ow.ly/1R1F302qCyc>. Continuing education credits will be available to healthcare providers.



NC 2015 HAI REPORT



NC 2015 HAI Report,
NC SHARPPS, 2016

This year-end summary from the NC SHARPPS Program provides state-level data and hospital-specific data from North Carolina short-term acute care hospitals. This report includes data on Central line-associated bloodstream infections (CLABSI), Catheter-associated urinary tract infections (CAUTI), Surgical site infections (SSI) post abdominal hysterectomy and post colon surgery, Methicillin-resistant *Staphylococcus aureus* (MRSA) laboratory-identified (LabID) events, and *Clostridium difficile* infection (CDI) LabID events from January 1 through December 31, 2015, as well as an overview of program activities and accomplishments.

One key point for the 2015 North Carolina Annual Report:

- In 2015, NC observed fewer infections than predicted by the national baseline for all HAIs, except LabID MRSA events.

The report can be found here: <http://epi.publichealth.nc.gov/cd/hai/figures.html>.

*2016 data will be published beginning later this summer.

ANTIBIOTIC USE IN OUTPATIENT SETTINGS

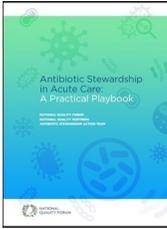
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The Pew Charitable Trust recently published the first in a series of reports on antibiotic use in outpatient settings. A panel of public health and medical experts, including representatives from the CDC, analyzed current outpatient antibiotic prescribing habits in the United States, determined targets for reducing inappropriate prescribing, and identified steps needed to reach these targets. At least 30% of the outpatient antibiotic prescriptions written each year are unnecessary.

The panel set a 2020 goal of 50% reduction of inappropriate antibiotic use, or 23 million fewer prescriptions. This would require decreasing outpatient antibiotic prescribing by 15% overall. The majority of this reduction would come from eliminating unnecessary antibiotic prescribing for acute respiratory conditions. To read the report, go to: <http://www.pewtrusts.org/en/research-and-analysis/reports/2016/05/antibiotic-use-in-outpatient-settings>.

PLAYBOOK FOR ANTIBIOTIC STEWARDSHIP IN HOSPITALS



Antibiotic Stewardship in Acute Care: A Practical Playbook, National Quality Forum, 2016

Decades of overprescribing and misuse of antibiotics have contributed to an increase in drug-resistant bacteria. CDC reports that antibiotic resistant bacteria cause 2 million illnesses and 23,000 deaths in the United States annually. CDC, National Quality Forum's National Quality Partners (NQP), and the Hospital Corporation of America

(HCA) collaborated with professional societies and national stakeholders to publish a practical guide for hospitals to improve antibiotic use within their facilities. "Antibiotic Stewardship in Acute Care: A Practical Playbook" is based on CDC's Core Elements of Hospital Antibiotic Stewardship Programs and provides guidelines to establish new antibiotic stewardship programs and strengthen existing programs within acute care settings. The playbook can be found here: <http://ow.ly/MoZl302qDCT>.

ANTIBIOTIC STEWARDSHIP NEONATAL SEPSIS INITIATIVE

The SHARPPS Program has partnered with the Perinatal Quality Collaborative of North Carolina (PQNC) in their Antibiotic Stewardship Neonatal Sepsis Initiative. Sepsis in a newborn is a serious condition. Currently, there are varied approaches to identifying and managing at-risk infants; this variation can cause lower quality of care, higher cost of care, and excessive or unnecessary exposure to antibiotics.

As a member of the perinatal quality improvement team, SHARPPS will share strategies with stakeholders to develop potentially better practices and establish a standard of care within North Carolina hospitals that includes:

- Providing education and support necessary to develop standards of care for identifying and managing infants at risk for early onset sepsis
- Engaging families to further provide education on appropriate use of antibiotics

This initiative is ultimately designed to reduce the rate of antibiotic resistance that is occurring within North Carolina and further protect infants susceptible to infection by establishing best practices for evaluating sepsis risk and diagnosis. By January 28, 2018, this project will utilize the established best practices to reduce the rate of infants exposed to any antibiotic by 20% and to decrease by 20% the duration of antibiotic administration past the first 48 hours of life with negative blood or CSF cultures. Visit <http://www.pqnc.org/node/13794> to learn more.

NHSN ANTIMICROBIAL USE/ANTIMICROBIAL RESISTANCE MODULE

The National Healthcare Safety Network (NHSN) has produced a surveillance tool for acute care hospitals and facilities to report and analyze antimicrobial use and antimicrobial resistance. The Antimicrobial Use and Resistance Module (AUR) was established as a part of the effort to reduce antimicrobial resistant infections. The voluntary data reporting module includes two separate options, antimicrobial use (AU) and antimicrobial resistance (AR), which can be used individually or in conjunction. The AU option allows inpatient facilities to track antimicrobial usage throughout the entire facility and by individual units. The facilities' antimicrobial use is compared to other facilities by using the Standardized Antimicrobial Administration Ratio (SAAR), similar to the SIR. The AR option allows inpatient facilities to track rates of antimicrobial resistance using a standardized approach and provides a facility wide antibiogram. Currently, these modules are only available to inpatient facilities that have specific electronic systems in place.

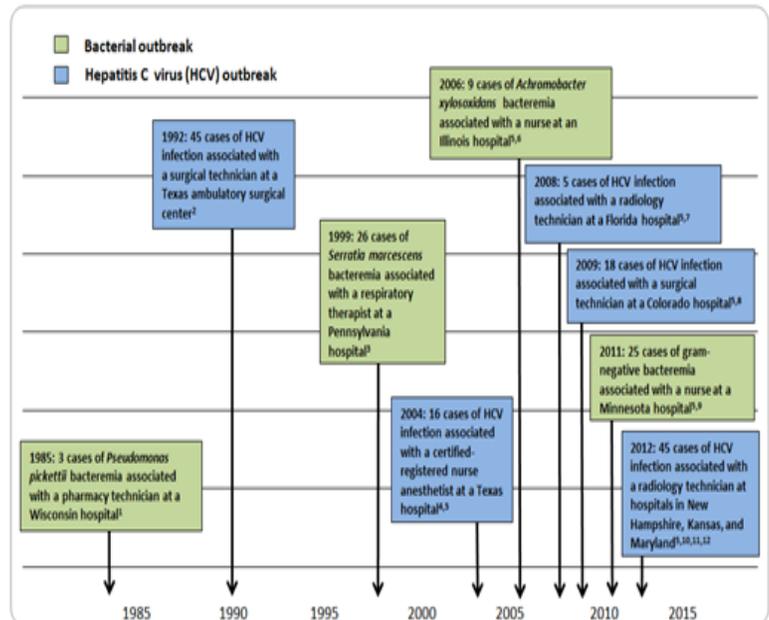
The NHSN AUR module requires substantial effort for implementation, but subsequent use requires minimal effort on the part of the individual facility. While the AUR module is currently a voluntary reporting system, it is likely that it will become a requirement within the next ten years.

Please notify the SHARPPS Program if your facility has adopted the AUR module. For more information, please visit: <http://www.cdc.gov/nhsn/acute-care-hospital/aur/index.html>.

DRUG DIVERSION HIGHLIGHTED AT CD CONFERENCE

Earlier this year, NC DPH conducted a survey on drug diversion targeting healthcare facilities statewide. The results demonstrated that 67% of participants do not understand public health's role in drug diversion, and only 5% stated they would notify public health of diversion cases. This illustrated the overwhelming need for education related to drug diversion.

Healthcare worker drug diversion jeopardizes patient safety and could potentially spread infection from diverter to patient and patient-to-patient. Since 1983 in the United States, drug diversion has been linked to 5 Hepatitis C outbreaks and 4 bacterial outbreaks, affecting a total of 192 patients. By North Carolina law, clinicians and laboratories are required to report cases of communicable diseases. Additionally, public health is required to investigate and institute control measures for any drug diverter who has been positively identified with a bloodborne pathogen.



Graph of US outbreaks from drug diversion by healthcare providers 1983-2013, CDC, 2014

In April, the NC Communicable Disease Conference was held in Asheville, NC, with approximately 300 communicable disease staff in attendance. The SHARPPS Program hosted a session on drug diversion. This session included presentations from Judy Billings with the State Bureau of Investigations and Elaine Russell, Transylvania County Health Director. Billings discussed her investigations of healthcare worker drug diversion, and Russell shared her experience with a drug diversion case. Billings and Russell both emphasized the importance of notifying public health of drug diversion cases, as public health is instrumental in assessing the risk of disease transmission and implementing control measures. Following the presentations, Tammra Morrison, SHARPPS Nurse Consultant, and Jennifer MacFarquhar, SHARPPS Program Director, joined Billings and Russell to further discuss public health engagement around suspected drug diversion cases.

The One & Only Campaign website houses information on drug diversion prevention and notification, <http://www.oneandonlycampaign.org/content/risks-healthcare-associated-infections-drug-diversion>.

*Interested in having SHARPPS present or exhibit at your upcoming event?
Contact us at nchai@dhhs.nc.gov.*

ARTICLE ON DRUG DIVERSION AND PATIENT SAFETY

In an effort to emphasize the frequency and accessibility a healthcare worker may have to divert medication, a recently published article by Kimberly New, JD, founder of Diversion Specialists, details a few scenarios where healthcare workers diverted medication and caused patient harm. In the article, New provides warning signs of drug diversion, lists ways to make diversion difficult within a facility, and emphasizes the need to notify both law enforcement and public health. The article can be accessed at <http://www.diversionspecialists.com/wp-content/uploads/Considerations-When-Tampering-Occurs.pdf>.

CRE SENTINEL SITE SURVEILLANCE

Enterobacteriaceae are a normal part of gut bacteria. Carbapenem-resistant Enterobacteriaceae (CRE) are bacteria that are resistant to nearly all antibiotics and cause over 9,000 healthcare-associated infections each year. The mechanism of resistance among CRE currently of greatest public health concern is production of Carbapenemase enzymes. CRE producing carbapenemases are known as Carbapenemase producing CRE or CP CRE. Beginning March 1, 2015, NC DPH implemented a sentinel surveillance system to characterize CRE infections and colonization among patients admitted to seven of the state's largest medical centers and to assess the prevalence of specific mechanisms of resistance.

As of March 31, 2016, 212 cases have been identified; 118 (56%) of which were identified through surveillance cultures. The most common infections were urinary tract (n=31, 33%), bacteremia (N=16, 17%), and pneumonia (n=13, 14%). Among patients from whom CRE were isolated, the median age was 56 years, and half were female (54%).

The majority of patients had recent healthcare exposures including hospitalizations, indwelling devices and a recent history of antibiotics. We identified the predominance of CRE isolates (n=110, 52%) to be carbapenemase-producing. These results will be used for future antimicrobial resistance prevention activities and program planning as we consider incorporating CRE as a reportable condition in NC.

The NC Get Smart Campaign and NC One & Only Campaign are recruiting work group members. If interested, email Kristin.pridgen@dhhs.nc.gov

PROPOSED CMS RULE ON INFECTION CONTROL AND INAPPROPRIATE ANTIBIOTIC USE

The Centers for Medicare and Medicaid Services (CMS) proposed new standards to advance healthcare quality and equity in US hospitals and critical-access hospitals (CAHs) by preventing HAIs, stopping spread of antibiotic-resistant bacteria, and reducing inappropriate antibiotic prescribing. Hospitals and CAHs would be required to have and demonstrate adherence to facility-wide infection prevention and control programs, as well as antibiotic stewardship programs. The proposed rule builds on the Department of Health and Human Services (HHS) quality initiatives and would contribute to the accomplishment of Goal 1 in the National Action Plan for Combating Antibiotic Resistance, which includes activities to foster antibiotic stewardship by improving prescribing practices across all healthcare settings and preventing the spread of drug-resistant threats in healthcare facilities and communities. The proposed changes will lead to strengthened antibiotic stewardship across healthcare settings by expanding existing programs, developing new ones, and monitoring progress and efficacy.

CMS will accept comments until August 15, 2016. To learn more and submit comments, visit <http://ow.ly/QRda302qFal>.

UPCOMING EVENTS

- CDC's Division of Healthcare Quality and Promotion "Unsafe Injection Stories from the Field" webinar: July 26, 2016
- Antibiotic Resistance Presentation at the NC Academy of Physician Assistants Summer Conference: August 25, 2016, Myrtle Beach, SC
- Safe Injection Connection Training Program: October 17, 2016, NC Division of Public Health (Cardinal Room), Raleigh, NC

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