

SHARPPS Newsletter

Surveillance for Healthcare-Associated and Resistant Pathogens Patient Safety (SHARPPS) Program

U.S. ANTIBIOTIC AWARENESS WEEK

Inappropriate use of antibiotics is the single most important factor leading to [antibiotic resistance](#) around the world. Antibiotics are among the most commonly prescribed drugs used in human medicine. However, up to 50% of all the antibiotics prescribed for people are not needed or are not optimally effective as prescribed. Antibiotics are also commonly used for promoting growth in food animals, a type of use that is heavily debated.

[US Antibiotic Awareness Week](#) (formally Get Smart Week) is the new official name for the week-long national observance to raise awareness of antibiotic resistance and the importance of appropriate antibiotic prescribing and use (also known as antibiotic stewardship). The observance is a key component of CDC's efforts to improve antibiotic stewardship in communities, in healthcare facilities, and on the farm in collaboration with state-based programs, nonprofit partners, and for-profit partners. This year's observance is November 13-19. Visit the [Get Smart website](#) to learn of available education and resources.

2017 NC GET SMART KIDS ARTWORK COMPETITION

The 2017 Get Smart Kids Artwork Competition is now underway! In efforts to increase antibiotic awareness among the general public, the NC Get Smart Campaign is accepting original artwork submissions from children in pre-K to 12th grade. The deadline to submit is October 13. Competition winners will be announced during US Antibiotic Awareness Week. For more details, visit the [NC Get Smart webpage](#).



CALLING ALL CREATIVE KIDS!
2017 NC Get Smart Artwork Competition
DRAW A PICTURE OR DESIGN A POSTER ABOUT ANTIBIOTICS!



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UPCOMING EVENTS

- APIC NC Fall Conference: September 24-27, Asheville, NC
- NCPHA Fall Conference: September 27-29, Asheville, NC
- Safe Injection Connection: October 30, Raleigh, NC

RECENT CRE INVESTIGATION AND SURVEILLANCE AND PREVENTION RECOMMENDATIONS

Carbapenem-resistant Enterobacteriaceae (CRE) are bacteria that have become resistant to carbapenem antibiotics. Some CRE produce carbapenemase enzymes to break down carbapenem antibiotics. The genes that produce these carbapenemases can be transferred to other bacteria. Carbapenemase-producing CRE (CP-CRE) are of particular concern because of this ability to transfer resistance to other bacteria. Infections caused by CRE can be hard-to-treat or untreatable and are on the rise. For more information on a recent investigation leading to the detection of an unusual mechanism of drug-resistance and to review SHARPPS recommendations on CRE surveillance and prevention, refer to the [provider memo](#).

NEW REPORT ON ANTIBIOTIC USE IN THE U.S.

Antibiotic stewardship, the act of improving the way antibiotics are prescribed and used, is critical for protecting patients from harm and combating antibiotic resistance. Although the United States has made progress toward optimal prescribing and use of antibiotics in human health, there are many opportunities to improve.

In outpatient settings, antibiotic prescribing decreased by 5% from 2011 to 2014. However, 30% of all antibiotic prescriptions in outpatient settings and hospitals are considered unnecessary. Additional research is underway to measure antibiotic prescribing and use in nursing homes, where over 4 million Americans receive medical care annually.



The Centers for Disease Control and Prevention (CDC) released a new report, [Antibiotic Use in the United States, 2017: Progress and Opportunities](#), that includes information about the current status of antibiotic use in healthcare settings. The report highlights programs and resources to support antibiotic stewardship.

The report also demonstrates the specific roles and actions for healthcare providers; patients and their families; health systems, hospitals, clinics, and nursing homes; healthcare quality organizations; health insurance companies; healthcare provider professional organizations; and federal, state, and local health agencies.

The next [Safe Injection Connection training](#) is scheduled for October 30, 2017 in Raleigh. This free, half-day training provides education on safe injection practices. Continuing education is available. To register, email nchai@dhhs.nc.gov.

DUPLIN COUNTY PARTNERS PILOT SHARPPS INTERFACILITY TRANSFER FORM

The SHARPPS Program and Duplin County Health Services have partnered with 12 healthcare facilities, including an acute care hospital, long-term care facilities, and 2 transport services in Duplin County to pilot an interfacility transfer form. This initiative is part of a regional effort to enhance communication around patients transferred between healthcare settings and to prevent transmission of multidrug-resistant organisms (MDROs).

MDROs are bacteria that have become resistant to multiple antibiotics. Antimicrobial resistance is a major threat to public health. It is estimated that approximately 2 million people in the United States get infections that are resistant to antibiotics every year, and at least 23,000 people die as a result. Because multiple antibiotics are not effective against these bacteria, infections are difficult to treat and are associated with greater morbidity, mortality, and costs of care.

MDROs can be spread when a patient's MDRO status is not known by a transferring or receiving facility or when proper infection control measures are not in place. Adherence to appropriate hand hygiene and precautions (including personal protective equipment) can prevent the spread of MDROs. Notification of facilities that are transferring or receiving a patient known to be colonized or infected with a MDRO allows for prompt implementation of these infection control measures. Communication of current MDRO status during patient transfer, compliance with hand hygiene, and use of appropriate precautions are best practices for patient safety and containing healthcare costs.

In order to facilitate communication among healthcare settings, particularly about MDRO status, the SHARPPS Program developed an interfacility transfer form. The Centers for Medicare and Medicaid Services has made interfacility communication during patient transfer a focus of regulations contained in the *Reform of Requirements for Long-term Care Facilities* passed in October 2016. Interfacility communication of patient MDRO status has also been recommended as a control measure for MDROs by several organizations, including the Society for Healthcare Epidemiology of America, the Infectious Diseases Society of America, and the Centers for Disease Control and Prevention. The SHARPPS Program interfacility transfer form was developed using guidance from these organizations and other partners.

Organizations in Duplin County participating in the pilot will utilize the interfacility transfer form and provide feedback to the SHARPPS Program. The SHARPPS Program is looking for additional partners to pilot the interfacility transfer form as broader implementation of this form is expected. If you are interested in piloting the interfacility transfer form, please contact the SHARPPS Program at nchai@dhhs.nc.gov or 919-733-3419.

INVASIVE GROUP A STREPTOCOCCAL OUTBREAKS IN NORTH CAROLINA

Group A *Streptococcus* (GAS) is a bacterium that usually lives in the nose and throat. It can cause infections such as strep throat, scarlet fever, and impetigo. GAS can cause severe and potentially life threatening infections when the bacteria invade normally sterile locations such as blood, cerebral spinal fluid, and joint spaces. When infection prevention practices such as appropriate hand hygiene are not followed consistently, GAS infections can spread easily within healthcare settings, compromise patient safety, and result in outbreaks. While outbreaks caused by GAS are not new, the NC Division of Public Health (NC DPH) has seen an increase since consistent surveillance began in 2011. In 2011, 3 GAS outbreaks were reported. This number more than tripled to 10 reported outbreaks in 2016, and as of August 2, there have already been 10 outbreaks in 2017.

Outbreaks caused by GAS can last for extended periods of time, as we describe here. In December 2016, NC DPH, in collaboration with a local health department, began investigating a GAS outbreak in two 'sister' long term care facilities. Between December 24, 2016 and June 4, 2017, 20 residents tested positive for GAS. As part of the investigation, residents and staff were screened for symptoms of illness and specimens from symptomatic staff and all residents were collected, staffing records were reviewed, and site visits were conducted. Two employees were identified to have worked and performed wound care at both facilities. Isolates from 15 cases (1 staff member and 14 residents) were submitted to CDC for serologic and whole genome sequencing (WGS). Fourteen (1 staff member and 13 residents) had the same serologic pattern, and WGS results indicated all isolates were very closely related, suggesting intra- and inter-facility transmission. Four of 8 (50%) affected residents from facility A died; 2 of 12 (15%) affected residents in facility B died. A shared employee, who had an isolate matching the serologic pattern and WGS, was likely the link between these facilities, but not the source of the outbreak.

Multiple on-site visits were conducted throughout this investigation. Several infection control breaches were identified and recommendations were provided, including compliance with NCAC rule .0206 (enrolling in a state approved infection control course) and adherence to appropriate hand hygiene practices, isolation precautions, and wound care.

One of the most frequent infection prevention breaches we have observed, not only in this outbreak but in others, is the use of a single pair of scissors for all residents receiving wound care. Best practice during wound care is for each resident to have dedicated or disposable scissors, as the hinge of scissors cannot be adequately cleaned or disinfected (without autoclaving), thus serving as a reservoir for organisms and providing an opportunity for disease transmission.

Continued training, education and competency checks in infection control are essential tools in combating communicable diseases in our facilities and communities.

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