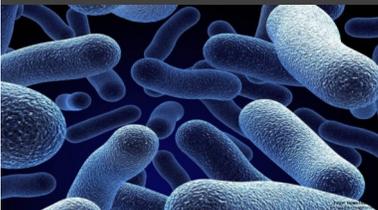


What's New with the SHARP Unit

MDCH SHARP is in the process of applying for our 'regular' grant funding. These dollars support both the statewide Michigan HAI Prevention Advisory Group, and the CRE Surveillance and Prevention Initiative. In the coming year, we plan on updating the Michigan HAI Surveillance and Prevention Plan (posted in 12/2009).

New projects coming SOON! The SHARP Unit has secured Ebola-associated funding from CDC to begin some exciting new work. One aspect will be to evaluate acute care hospitals' Ebola-readiness through on-site infection prevention and preparedness assessments using a CDC-developed readiness assessment tool. We will also be evaluating outbreak reporting and response, as well as general infection prevention knowledge and practices, at all types of facilities throughout the state. Additionally, we'll be looking at ways to utilize existing surveillance data (NHSN) for enhanced surveillance activities. If you're interested in having your facility evaluated or in helping to develop tools and surveys, please contact either Jennie Finks at finksj@michigan.gov or Noreen Mollon at mollonn@michigan.gov.



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CRE and Duodenoscopes

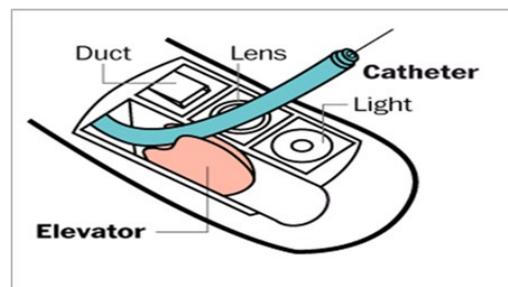
Recent investigations of patients infected or colonized with carbapenem-resistant *Enterobacteriaceae* (CRE) after undergoing endoscopic retrograde cholangiopancreatography (ERCP) procedures in Pittsburgh, Seattle, Chicago, and Los Angeles have brought increased focus on whether current recommendations of high level disinfection for duodenoscopes is adequate or more rigorous cleaning of the scopes needs to be implemented.

CRE is a growing public health threat. CRE are resistant to multiple classes of antimicrobials, can share mobile pieces of genetic material conferring resistance to other susceptible bacteria, and are associated with high mortality rates (40-50% for bloodstream infections).

Duodenoscopes differ from endoscopes which are used for routine upper gastrointestinal endoscopy or colonoscopies. Duodenoscopes are more intricate and have a unique, complex physical design. The distal end has an elevator wire channel (or tiny flap) that can hold stents, catheters, guide wires or other accessories to evaluate and remove blockages from the channels (bile and pancreatic ducts) that drain the liver. More than 500,000 ERCP procedures are performed annually in the U.S.

...cont on page 2

The figures below illustrate the distal tip of a duodenoscope.



CRE and Duodenoscopes

...cont from page 1

FDA issued a Safety Communication on February 19, 2015, stating the design may impede effective cleaning. This was followed by final guidance on March 12, 2015, for the reprocessing of reusable medical devices. One of the manufacturers on the duodenoscopes, Olympus, validated the new processing instructions for Model TJF-Q180V and sent letters to health care facilities and other users of the scopes on March 26, 2015, outlining the new, validated reprocessing instructions, and will soon be distributing revised user manuals. Key changes were made to the Pre-cleaning, Manual Cleaning, Manual High Level Disinfection reprocessing procedures. A new brush will be sent to facilities that use the Model TJF-Q180V. Brushes should arrive by May 8, 2015. The new recommendations include raising and lowering the elevator mechanism three times while the device is in the disinfectant. Additionally, the area surrounding the elevator should be cleaned with 2 different-sized brushes; one brush that the hospitals already have access to and the new brush which will arrive by May 8th. Overall recommendations include strict adherence to cleaning instructions, more frequent monitoring of staff who reprocess the devices to ensure proper handling, and high level disinfection using a FDA-cleared aldehyde-based disinfectant or oxidizing agent.

No outbreaks of CRE associated with exposure to ERCP procedures have been reporting in Michigan.

–Brenda Brennan,
brennanb@michigan.gov

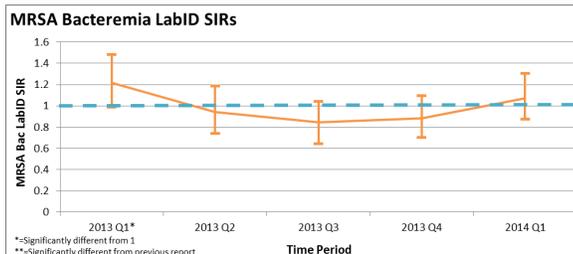
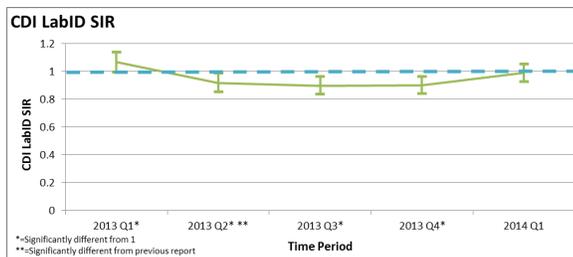
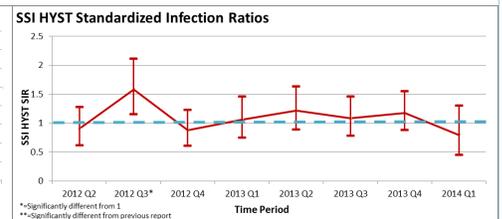
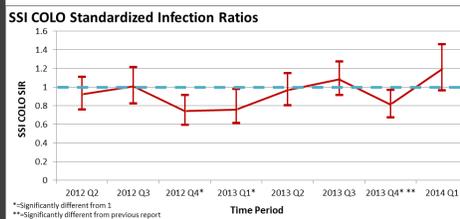
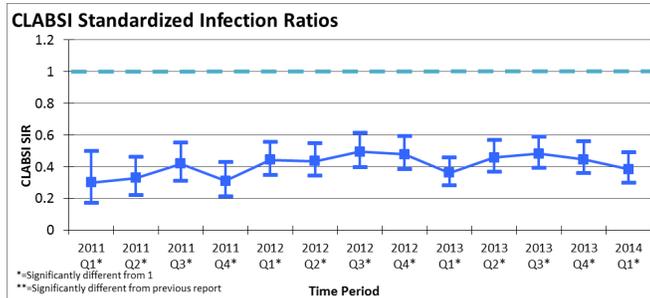
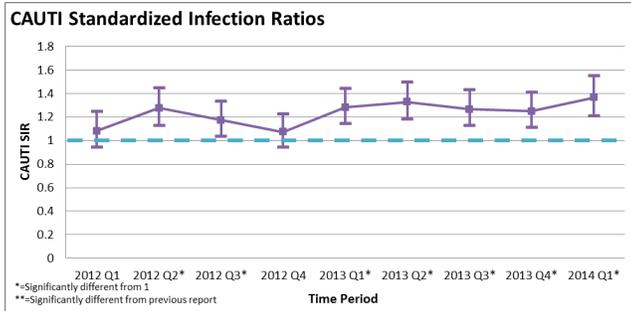


NHSN Surveillance Update

NHSN Patient Safety Component Revisions and Reminders

- The January 2015 definition change for NHSN inpatient and outpatient operative procedure in the SSI module was rescinded. These definitions are now updated in the protocol online.
- Reminder: Locations defined as an adult or pediatric medical, surgical, or medical/surgical wards will be included in the CMS IPPS CLABSI and CAUTI SIRs beginning with 2015 Q1 data.
 –Allie Murad, murada@michigan.gov

Michigan SIR Trends



CRE Surveillance and Prevention Initiative

CRE Surveillance and Prevention Initiative Summary Report

The Phase 1 Summary Report is now available! In total, 327 cases (284 inpatients) were reported from September 2012–August 2014. We were able to establish a statewide baseline CRE incidence rate (0.93 per 10,000 patient-days) and decrease incidence to 0.70 cases per 10,000 patient-days (statistically significant). Facilities were able to prevent 86 infections of CRE over the 2 year Phase 1 period; twenty-six of those were prevented in LTACs.

New Facilities (Phase 2)

Phase 2 began September 2014 and now includes 30 facilities (added 9 facilities). New facilities have their own baseline incidence rate established (0.98 per 10,000 p-d) and are currently implementing prevention measures in their facilities to reduce their rates. New facilities are off to a great start preventing 10 infections of CRE of which 4 were at LTACs.

CRE Educational Conference

MDCH will be hosting a CRE Educational Conference on Thursday, June 25th, 2015 at the Inn at St. John's in Plymouth, MI.

Speakers include:

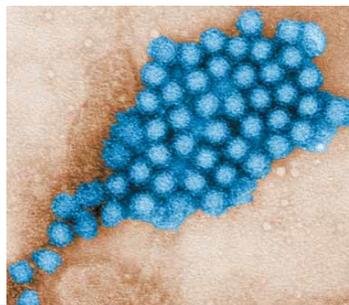
- Alex Kallen (CDC): CRE overview and changing epidemiology
- Keith Kaye (DMC): CRE Management and Treatment Options
- David van Duin (UNC): CRE in NE Ohio and clinical outcomes of patients
- Tara Palmore (NIH): The NIH experience and containment measures with their CRE outbreak
- Silvia Munoz-Price (Medical College of WI): LTACS, regional epi, and contributing factors of disease
- Lilly Kan (NACCHO): Local health department involvement in public health initiatives
- Paul Schreckenberger (Loyola): CRE mechanisms and their importance in infection prevention.

The conference is intended for initiative participants, collaborative members and interested public health/infection prevention partners. If you are interested in attending, please contact Brenda.

CRE Incidence in Michigan

Three hundred and seventy-seven cases have been reported by participating facilities since September 2012. A majority of cases have been inpatient (non-ICU) cases. CRE incidence currently is 0.45 cases per 10,000 patient-days which is a decrease from our cumulative baseline rate of 0.94. As of January 2015, 135 infections of CRE (33 in LTACs) have been prevented across all Phase 1 and Phase 2 facilities.

-Brenda Brennan, BrennanB@michigan.gov



Norovirus in LTC/Behavioral Health

The Spring 2015 issue of the *Prevention in Action* newsletter published by APIC included an article entitled *Focus on LTC/behavioral health outbreaks—Identify the Pathogen: Norovirus*, written by Steven J. Schweon. The intent of the article was to study and learn about outbreaks in the LTC/behavioral health setting as the most frequently reported outbreaks in the medical literature occurred in acute care hospitals.

The article describes a scenario in a locked inpatient pediatric behavioral health unit that admits patients 6 to 12 years of age. Three of 4 patients, 10 of 38 staff, three temporary staff, and five family members developed gastroenteritis. The index case was incontinent and wore diapers; he also frequently smeared feces on environmental surfaces. Due to the index case's psychiatric disorder, it was difficult to confine the patient to his room.

Luckily, the facility acted appropriately by closing to all admissions, giving all ill staff members sick leave, enforcing hand hygiene with soap and water, banning employee consumption of food or drinks on the unit, and extensively cleaning and disinfecting the unit with a bleach solution. Because of these actions, resolution of the outbreak was swift.

Managing a gastroenteritis outbreak on a behavioral health unit or even in a long term care facility can be very challenging. Norovirus is highly contagious—as few as 18 particles can infect an individual. Once infected, an individual can shed billions of viral particles. The incubation period ranges between 24 and 48 hours.

In any setting, it is important to refer to CDC's norovirus guidelines for managing an outbreak if one occurs. Staff should perform hand hygiene with soap and water after removing personal protective equipment, contact precautions should be initiated in a single room for patients with suspected norovirus gastroenteritis, and surfaces should be cleaned with a bleach solution. Finally, enforce a sick leave policy to prevent additional transmission to patients and staff. Restrict ill employees from returning to work for a minimum of 48 hours after resolution of symptoms.

Clostridium difficile

Events/Calendar

Please visit our SHARP Unit Calendar, found on the SHARP Unit homepage. If you would like to add an event to this calendar, please email: MDCH-SHARP@michigan.gov

Helpful Links

www.michigan.gov/hai

www.mhakeystonecenter.org

www.mpro.org

www.mi-marr.org

www.msipc.org

www.apic.org

www.hhs.gov/ash/initiatives/hai/

www.hospitalcompare.hhs.gov

www.cdc.gov/nhsn

www.cdc.gov/HAI/prevent/prevention.html

www.cdc.gov/HAI/organisms/cre

www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html

AJIC: CDI Readmissions

According to a study published in this month's issue of AJIC, patients with *Clostridium difficile* infection (CDI) are twice as likely to be readmitted to the hospital as patients without the infection. The study, titled "Burden of *Clostridium difficile* infection on hospital readmissions and its potential impact under the Hospital Readmission Reduction Program" conducted locally at the Detroit Medical Center hospital system, aimed to understand the epidemiology of CDI readmissions. All-cause hospital discharges from all DMC system hospitals in 2012 were analyzed (n=51,353). The data identified patients with a CDI diagnosis during their stay and classified them as either an index admission or a 30-day readmission for CDI. The study found that 30.1% of patients discharged with CDI were readmitted within 30 days versus 14.4% of non-CDI discharges. These readmissions can place a large burden on the healthcare system by requiring patients to stay in the hospital longer, leading to less patient bed turnover and higher hospital costs. Centers for Medicare and Medicaid Services (CMS) programs that tie reimbursement to facility infection rates should incentivize hospitals to improve infection control and antibiotic prescribing practices to prevent healthcare-associated infections such as CDI.

Call for Facilities

MDCH SHARP is seeking additional Skilled Nursing Facilities (SNFs) to perform *Clostridium difficile* Infection (CDI) surveillance. In order to incorporate SNF CDI data into our regular surveillance reports, we need a minimum of 5 participating facilities. Facility data will be included in statewide semi-annual and annual reports, along with quarterly snapshot reports. These reports will display aggregate trends for all facility types throughout Michigan. You will also receive an individual facility feedback report at least once per year. Quarterly reporting deadlines follow those established by the CMS for acute care hospitals. Deadlines are generally 4.5 months after the end of each quarter and MDCH SHARP will send reminders prior to each deadline.

We encourage the use of NHSN for submitting surveillance data. For details on how to enroll in NHSN, view our archived presentation at www.michigan.gov/mdch/0,4612,7-132-2945_5104_55205-268147--,00.html. For additional assistance with NHSN enrollment, please contact Allie Murad at murada@michigan.gov.

If you are not yet enrolled in NHSN, you may submit facility data via faxed paper form. For details on the paper form or additional information regarding CDI data submission please contact Noreen Mollon at mollonn@michigan.gov.

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