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2018 CHAIN Award for Excellence Nominees

Abbott Northwestern Hospital

Central Line-Associated Bloodstream Infection (CLABSI) Prevention Team

Analysis of data by the team at Abbott Northwestern (ANW) suggested a majority of CLABSIs were related to central line maintenance lapses (vs. issues with central line insertion). Central line maintenance audits confirmed gaps in compliance with best practice recommendations. ANW implemented a data-driven approach to improve maintenance practice including rounding on patients with a central line in the ICU, medical oncology, and telemetry units; creating an all-inclusive central line dressing change kit and change procedure; modifying central line patient education; forming Clinical Action Teams with CLABSI nurse champions; and mandatory central line dressing education for all nurses. These interventions resulted in a decrease in CLABSI at ANW from 1.05 in 2016 to 0.67 in 2018, a 36 percent reduction.

Avera Marshall

Reduction of Surgical Site Infections (SSI) Team

A tiered team of infection prevention and surgery leadership researched best practices on how to decrease SSI rates. Using tools from the Centers for Disease Control and Prevention (CDC) and Minnesota Hospital Association (MHA), the group focused on reducing operating room traffic and controlling the temperature in the OR. After implementing the process changes, Avera Marshall conducted audits that showed 15 or fewer ins and outs of the OR suite, meeting or exceeding their goal. Avera Marshall implemented a new policy requiring temperatures to be maintained at 68 degrees with any change approved by anesthesia. Preoperative patient warming was adjusted, so every general anesthesia or neuraxial block patient received warming for 30 minutes before surgery with warming maintained throughout the procedure. Patient outcomes were reviewed with success and minimal variability.

Bethany on the Lake

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Bethany on the Lake used guidance from the Minnesota Department of Health and the Centers for Disease Control and Prevention to create processes for protecting residents from infection and harmful treatment practices. Areas of specific improvement achieved include engagement of residents and their families in the infection control process, antibiotic stewardship, and review of current processes used to prevent infection, including a standardized treatment campaign for urinary tract infections.

Carris Health Care Center and Therapy Suites

Infection Control Committee

The Infection Control Committee implemented interventions including education for emergency department prescribers to minimize antibiotics for asymptomatic bacteriuria, education for clinic prescribers to minimize inappropriate antibiotics, and development of the "Does My Resident Need an Antibiotic" computer program. This original program aids staff in determining if an antibiotic is needed by clicking "yes" or "no" to a series of questions that leads them through Loeb's Minimum Criteria for Initiation of Antibiotics in Long-Term Care Residents. Carris Health Care Center and Therapy Suites' current infection rate is 3.3 infections per 1000 resident days, down from last year's rate of 4.3.
CentraCare Health St. Cloud Hospital

Collaborative Healthcare-Associated Infection Network

Emergency Preparedness Measles Prevention (EPMP) Committee

The EPMP Committee implemented numerous interventions, leading to an increase of the herd immunity rate for MMR among children ages one through 12 years of age in the CentraCare Health patient population from 91.2 percent in March 2017 to 93.1 percent in June 2017, 92.8 percent in July 2017, and 93 percent in August 2017. For Somali children one through 12 years of age MMR herd immunity increased from 84.4 percent in March 2017 to 86.9 percent in June 2017, 88.8 percent in July 2017, and 86.9 percent in August 2017.

Essentia Health

Essentia Health Hand Hygiene Team

The goals of the Hand Hygiene team were to standardize hand hygiene monitoring practices across the health care system and to be able to measure and compare hand hygiene compliance data between facilities. The team settled on a hand hygiene observation method for inpatient areas and a hand hygiene survey card completed by patients for the outpatient areas to track compliance. Essentia Health has seen a steady increase in hand hygiene compliance rates since the initiative began. The inpatient rate has increased from 78 percent (in the pilot phase) to 93 percent compliance, and the ambulatory rate has risen from 91 percent to 95 percent compliance. The team is reviewing HAI rates and starting to see a decrease in HAIs.

FirstLight Health System

Infection Prevention and Antimicrobial Stewardship Committee

The committee improved antimicrobial stewardship and patient outcomes by reducing inappropriate utilization of Fluoroquinolones (FQs). FirstLight's pharmacy resident implemented both electronic and education interventions to improve the appropriateness of utilization. Electronically, health system order sets were updated by deprioritizing FQs and providing alternate guideline-recommended first-line antibiotics. Training was then offered to health system providers, pharmacists, and hospital administration regarding appropriate use. Analysis of appropriateness of FQ utilization yielded a greater than 50 percent reduction in total utilization for pneumonia and COPD.

Lakeview Hospital

Antibiotic Stewardship Team

Lakeview Hospital pharmacists review the patient list in Epic every shift looking for notes, appropriate antibiotic use, and duration. Feedback is given to providers at daily rounds based upon findings. The facility practices a pharmacist-driven IV to oral antibiotic transition which has increased antibiotic awareness to providers. Lakeview supports antibiotic stewardship through the transition of care by addressing duration of antibiotic use, as well as a partnership between Homecare/Hospice and the pharmacies patients use upon discharge.

University of Minnesota Medical Center - M Health

6B Intermediate Care Unit Catheter-associated Urinary Tract Infection (CAUTI) Prevention

Following a site visit to assess best practice and compliance with CAUTI prevention bundles, there was a facility-wide push at University of Minnesota Medical Center to implement strategies to improve adherence to best practice. Focus areas included identification of a unit CAUTI champion to assist in quarterly rounding and frontline staff education, increased emphasis on the importance of early catheter removal, increased rounding to assess for adherence to the maintenance bundle, and standardized checklists and audit tools. The CAUTI Standardized Infection Ratio (SIR) for 6B in 2016 and 2017 was 1.118 and 1.969 respectively. To date after implementation, the SIR for 2018 continues to be 0.000.

Park Nicollet Methodist Hospital

[Methodist Hospital 2NS Team](#)

The Methodist Hospital ICU team developed and implemented HAI-targeted interventions with the aim of achieving zero HAIs in 2018. These initiatives were a multidisciplinary collaboration among ICU nurses, clinical nurse educator, nursing leadership, infection prevention, ICU providers, respiratory therapist, and others. Interventions included a unit-based quality team to review all HAIs and provide targeted staff takeaways, an emphasis on device reduction in critical care team bedside rounds, and implementation of mandatory skills days for ICU and critical care float pool RNs with emphasis on HAI reduction education and competencies. As of July 31, 2018, there have been zero HAI identified in the ICU patient population.

Ridgeview Le Sueur Medical Center

[Ridgeview Le Sueur Nursing & Rehab Center](#)

Ridgeview Le Sueur Nursing & Rehab Center implemented an antibiotic stewardship program designed to optimize treatment of infections while reducing adverse events associated with antibiotic use. The goal is a decrease in unnecessary antibiotic scripts by 50 percent by January 2018. The urinary tract infection tracker was updated to include upper respiratory criteria to be followed by nursing staff and providers. As a result of recommendations from an Infection Control Assessment and Response (ICAR) site visit, surveillance was increased and a formal auditing schedule added. Since the program started, the majority of antibiotic prescribing has been substantiated by positive cultures.

TRIA Orthopedic Center

[TRIA Orthopedic Center](#)

In the summer of 2016, TRIA Orthopedic Center started a pre-operative *Staphylococcus aureus* nasal screening program for total joint patients to reduce the number of patients colonized before surgery and thus reduce the number of surgical site infections. Changes made in the screening processes over time have significantly increased the percentage of specimens collected from approximately 30 percent to 90 percent. The rates of total joint infections in hospital-based procedures performed by TRIA surgeons have also declined significantly.

University of Minnesota Medical Center - M Health

[Antimicrobial Stewardship Team](#)

Penicillin allergy assessment and skin testing have been shown to support antibiotic stewardship efforts, leading to improved antibiotic efficacy, reduced resistance, decreased adverse events (e.g., *C. difficile*), and lower costs. A two-step penicillin allergy testing protocol was developed by the Antimicrobial Stewardship Team (AST) and standard training was completed by infectious disease physicians, pharmacy residents, and pharmacists. Of the 26 allergy assessments conducted, AST deemed eight patients to have true IgE-mediated reactions while the remaining 18 were unclear or not an allergy. In the end, 16 patients had their penicillin allergy removed and 12 received a preferred beta-lactam regimen within six months after the protocol. Patients received education both before and after about penicillin allergies and their results, and a wallet card was provided to the patient at completion.

Collaborative Healthcare-Associated Infection Network

Welcov Healthcare

Katie Stockey, RN - Infection Prevention Surveillance Program

Katie successfully initiated Welcov Healthcare's antibiotic stewardship program. Utilizing the electronic medical record (EMR), she implemented a 24-hour check point for antibiotics in which the floor staff perform an assessment to ensure compliance. She created a flow sheet in which she reviews each resident's EMR to track issues. She developed a system for influenza and pneumococcal vaccination compliance that had 100 percent staff compliance in 2017. The Welcov Quality Assurance and Performance Improvement Committee reviews and gives recommendations each month based on Katie's data collection and analysis.