



Fig. 1.

on the day of surgery were acceptable for patients, and this protocol significantly reduced *S. aureus* concentration in nares of patients. Future large clinical trials should evaluate whether this 2-application regimen of povidone-iodine significantly decreases rates of SSI among orthopedic trauma surgery patients.

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Subject Category: SSI

Implementation of surgical site infection surveillance in 16 health facilities in Sierra Leone

Rugiatu Z. Kamara; Monique Foster; Jamine Weiss and Christiana Conteh

Background: Surgical site infections (SSIs) are associated with increased healthcare costs, antibiotic resistance, morbidity, and mortality. In low- and middle-income countries (LMICs), SSIs account for most healthcare-acquired infections (HAIs). In Africa, up to 20% of women who undergo a caesarean section develop a wound infection. Surveillance has been shown to be an essential component in the overall strategy to reduce SSIs. **Methods:** Surgical site infection surveillance is being implemented in 16 health facilities in Sierra Leone, with at least 1 from each of the 5 US Census regions: Eastern, Western, Northern, Northwestern, and Southern. These health facilities were selected based on the availability of a dedicated infection prevention and control (IPC) focal person. Women were observed for 30 days after caesarean section. A standardized surgical safety and surveillance checklist including case definitions and observable criteria (eg, purulent drainage, wound abscess, or intentional reopening) was used. Clinical staff were trained to collect data and to conduct in-person and phone interviews with patients on days 3, 7, and 30 after caesarean section. **Results:** From March 2021 to July 2021, a total of 2,529 women had caesarean sections in 15 health facilities; most occurred in the Northern region (785 of 2,529). Among these 2,529 women, 1,522 (60%) had an SSI surveillance checklist started, and of those 1,522, 632 (42%) had a completed checklist. Health facilities in most of the rural regions, (Eastern, Northwestern, and Southern) had no completed checklists. The overall SSI rate for the 15 health facilities was 3% (70 of 2,529). The Southern region had the highest SSI rate at 50% (35 of 70), but the Western region did not report any SSIs. Of the 70 cases, 49 (70%) were identified through active inpatient surveillance and 21 (30%) were identified through postdischarge surveillance. **Conclusions:** One of the priorities of Sierra Leone’s National IPC Action Plan is to

establish HAI surveillance. Surgical site surveillance is an essential component of HAI surveillance and leads to timely identification so infections can be treated quickly. This study was limited by inadequate data collection and patients lost to follow-up after discharge. However, this study illustrates that surveillance leads to the diagnosis of most SSI cases after caesarean section while patients are still hospitalized. Simple yet effective SSI surveillance can be conducted in LMICs to identify and ultimately treat SSI after caesarean section. More support is needed in rural and smaller facilities for better implementation of SSI surveillance in Sierra Leone.

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Increases in methicillin-sensitive *Staphylococcus aureus* bloodstream infection incidence, 2016–2019

Kelly Jackson; Joelle Nadle; Susan Ray; Ruth Lynfield; Ghinwa Dumyati; Marissa Tracy; William Schaffner; David Ham and Isaac See

Background: Incidence of methicillin-sensitive *Staphylococcus aureus* (MSSA) bloodstream infections (BSIs) in the United States during 2012–2017 has been reported to have been stable for hospital-onset BSIs and to have increased 3.9% per year for community-onset BSIs. We sought to determine whether these trends continued in more recent years and whether there were further differences within subgroups of community-onset BSIs. **Methods:** We analyzed CDC Emerging Infections Program active, population- and laboratory-based surveillance data during 2016–2019 for MSSA BSIs from 8 counties in 5 states. BSI cases were defined as isolation of MSSA from blood in a surveillance area resident. Cases were considered hospital onset (HO) if culture was obtained >3 days after hospital admission and healthcare-associated community-onset (HACO) if culture was obtained on or after day 3 of hospitalization and was associated with dialysis, hospitalization, surgery, or long-term care facility residence within 1 year prior or if a central venous catheter was present ≤2 days prior. Cases were otherwise considered community-associated (CA). Annual rates per 100,000 census population were calculated for each epidemiologic classification; rates of HACO cases among chronic dialysis patients per 100,000 dialysis patients were calculated using US Renal Data System data. Annual increases were modeled using negative binomial or Poisson regression and accounting for changes in the overall population age group, and sex. Descriptive analyses were performed. **Results:** Overall, 8,344 MSSA BSI cases were reported. From 2016–2019 total MSSA BSI rates increased from 23.9 per 100,000 to 28.5 per 100,000 (6.6% per year; $P < .01$). MSSA BSI rates also increased significantly among all epidemiologic classes. HO cases increased from 2.5 per 100,000 to 3.2 per 100,000 (7.9% per year; $P = .01$). HACO cases increased from 12.7 per 100,000 to 14.7 per 100,000 (7.0% per year; $P = .01$). CA cases

Figure. Rate of methicillin-sensitive *Staphylococcus aureus* bloodstream infections by year – overall and by epidemiologic class, 2016–2019 (graphs with different y-axis scales).

