the theory of planned behavior (TPB) as a framework to conduct 11 individual interviews (8 attending anesthesiologists and 3 certified nurse anesthetists) with a semistructured instrument that included Likert scale and open-ended questions. Interview transcripts were reviewed and a codebook of themes was created through inductive thematic analysis. Resultant themes and Likert scale averages were grouped by the 3 key TPB variables. **Results:** In total, 294 HH moments were observed for 50 anesthesia providers during 36 cases. The average HH adherence was 21.1% with the highest adherence moment being "after patient contact" (61.7%). Interview participants stated universally that HH was important for patient care, but acknowledged barriers to performance. Barriers cited included interruption in workflow, a lack of evidence, lack of clarity of HH standard, and limited availability of product. **Conclusions:** Adherence to the 7 moments of HH for anesthesia providers was not sustained after 6 months. Providers identified numerous barriers to HH, including a lack of knowledge of a standard, as reasons for suboptimal adherence. These data suggest future interventions could be designed to address gaps in knowledge and remove barriers to improve HH adherence among OR anesthesia providers.

Presentation Type:
Poster Presentation
Improved Postoperative Outcomes By Utilizing A Comprehensive Perioperative Surgical Site Infection (SSI) Reduction Bundle

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Background: Surgical site infections (SSIs) can be attributed to increased patient morbidity and mortality, prolonged hospital stays, and overall increased healthcare costs. The Surgical Care Improvement Project (SCIP) was implemented in 2002 but has made limited impact on SSI rates across our facilities, which has led to the creation of a bundled approach of current evidence-based strategies. **Methods:** In January 2019, a comprehensive SSI prevention bundle of strategies was implemented across a multihospital health system. The bundle was comprised of 8 interventions focusing on the preoperative, intraoperative, and postoperative continuum of care, and refining documentation in the electronic medical record. From January to September 2019 (preointervention period), data were collected from 7,163 adult inpatient and observation elective patients undergoing colon surgery (COLO), abdominal hysterectomy (HYST), hip arthroplasty (HPRO), knee arthroplasty (KPRO), and cardiac bypass graft (CBGB/CBGC). The preintervention period for SSI standardized infection ratios (SIRs) and retrospective review of process measures was set as January–December 2018 (postintervetnion period). Each process measure had outlined targets along with primary outcome measures of overall SSI SIRs and SIRs for each of the 5 reported procedure categories. SSIs were validated to meet CDC and NHSN surveillance case definitions. Secondary outcomes evaluated included length of stay (LOS), readmission rates, and mortality. **Results:** Overall SIR for all 5 monitored surgical categories decreased by 5% to 1.131 from January to September 2019, compared to SIR of 1.190 in 2018. Hip and knee arthroplasties demonstrated 40% and 38% reductions after the intervention, respectively. Completion of 7 or 8 interventions of the SSI bundle were correlated with lower readmission rates ($P = .0488$). When any portion of the bundle was used, this was correlated with shorter LOS ($P < .0001$). Adherence to standardized antimicrobial prophylaxis was associated with decreased mortality ($P = .017$), for all 5 surgical categories. **Conclusions:** With the implementation of a focused SSI reduction bundle, our institution has realized reductions in surgical readmissions, length of stay, and mortality. Additionally, SSI rates in certain procedure categories have shown marked improvement. The initial success of this bundle has garnered development of additional procedure focused supplemental strategies for the future year.

Presentation Type:
Poster Presentation
Improvement of Infection Prevention and Control Practices Using Quality Improvement Approach in Two Model Hospitals in Kenya

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Background: Little is known about how best to implement infection prevention and control programs in low-resource settings. The quality improvement approach using plan-do-study-act (PDSA) cycles provides a framework for data-driven infection prevention and control implementation. We used quality improvement techniques and training to improve infection prevention and control practices in 2 model hospitals in Kenya. **Methods:** The 2 hospitals were chosen by the Kenya Ministry of Health for capacity building on infection prevention and control. At each site, the project team (the University of Washington International Training for Education and Training in Health, Ministry of Health, and Centers for Disease Control) conducted infection prevention and control training to infection prevention and control committee members. Infection prevention and control quality improvement activities were introduced in a staggered manner, focusing on hand hygiene and waste management practices. For hand hygiene, the project team's technical assistance focused on facility hand hygiene infrastructure, hand hygiene practice adherence, hand hygiene supply quantification, and monitoring and evaluation using WHO hand hygiene audit tools. Waste management technical assistance focused on availability of policy, guidelines, equipment and supplies, waste segregation, waste quantification, and monitoring and evaluation using a data collection tool customized based on previously published tools. Regular interactive video conference sessions between the project team and the sites

that included didactic sessions and sharing of data provided ongoing mentorship and feedback on quality improvement implementation, data interpretation, and data use. **Results:** Hand hygiene data collection began in April 2018. In hospital A, hand hygiene compliance increased from a baseline of 3% to 51% over 9 months. In Hospital B, hand hygiene compliance rates increased from 23% at baseline to 44% after 9 months. Waste management data collection began in November 2018. At hospital A, waste segregation compliance scores increased from 73% at baseline to 80% over 6 months, whereas hospital B, waste segregation compliance went from 44% to 80% over 6 months. **Conclusions:** A quality improvement approach appears to be a feasible means of infection prevention and control program strengthening in low resource settings.

Presentation Type:
Poster Presentation

Improving Appropriate Testing for *Clostridium difficile* Infection: Update on Sustainability of a Quality Improvement Project

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Background: Children aged <1 year are usually colonized with *Clostridium difficile*: colonization rates range between 30% and 70%. In children, other infectious causes of diarrhea are more common than *C. difficile.* Molecular testing for *C. difficile* yields very high sensitivity. Clinical judgement is required for testing children with suspected infectious diarrhea. Inappropriate *C. difficile* testing may lead to antibiotic overuse. **Methods:** Initially, for the years 2016–2018, we collected data for positive *C. difficile* nucleic acid amplification tests (NAATs) at Sanford Children's Hospital. In 2017, a physician-driven protocol was implemented to replace the current nurse-driven protocol for testing. We implemented national guidelines for testing and treatment in pediatric patients. Microbiology lab was given autonomy to use Bristol stool criteria to process stool samples for *C. difficile.* Formed stools were rejected for testing for *C. difficile.* The result was suppressed in patients aged <1 year. We presented the available data at the SHEA spring conference in 2020. We collected new data until June of 2019 to measure the sustainability of the intervention. **Results:** In 2016, there were 78 *C. difficile* tests: 17 were positive and 11 were categorized as an HAI. From January 1 to June 30, 2017, there were 26 *C. difficile* tests: 8 were positive and 3 were categorized as an HAI. Furthermore, 16 *C. difficile* tests were obtained from July 7 to December 31, 2017: 4 were positive and 1 categorized as an HAI. In 2018, there were 18 tests and 2 were positive; 1 was categorized as an HAI. In 2019, there were 16 tests and 2 were positive; 1 of these was categorized as an HAI. **Conclusions:** Implementing 2 interventions (removal of a nurse-driven protocol and microbiology lab autonomy for rejecting formed stool samples) for improving *C. difficile* testing accomplished a reduction of >80% in the number of tests obtained. Overall, there was a sustained reduction in the number of positive tests and HAIs in the years 2018 and 2019. The 2 interventions have been sustainable over time.

Presentation Type:
Poster Presentation

Improving Confirmatory Testing for the Antimicrobial Resistance Surveillance Network in Ethiopia

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Table 1: Gaps and solutions

Gaps	Solutions
Sites required to submit all priority AMR isolates for confirmation. NRL tested 10%; retained all isolates indefinitely.	Selection algorithm developed that limits submissions to 12 isolates/month/site; Isolates discarded after 2 months.
Sites did not retain original isolates or work cards; were unable to retest discordant results.	Aliquot and work card retention required for up to 2 months.
Difficult to interpret result forms.	Isolate Submission and Results Form simplifies results comparison, error visualization, and captures additional data for troubleshooting and M&E.
Discordant results were not retested by the NRL, leading to mistrust from sites.	Discordant results require repeat testing by an alternate method.
Absence of scoring system.	Excel Scoring Matrix calculates scores for each isolate and each month. Errors classified by type, weighted by severity.
Site performance not monitored over time.	Excel Scoring Matrix graphs monthly scores and error rates. Biannual evaluation by NRL required.
Sites reported delays receiving results from the NRL.	One month turn-around time (TAT) required; monitored via Excel spreadsheet.
Root-cause analysis (RCA) and corrective action (CA) performed infrequently and inefficiently.	RCA/CA Checklist provides systematic guidance; requires sites submit RCA/CA to NRL for each discordant result within one month.