in the post-EVD period using the IPCAF tool. These results can be used to guide healthcare facilities and policy makers in developing strategies for IPC quality improvement projects to improve low-performing healthcare facilities. Significant gaps were observed in key IPC areas, especially in secondary-level health facilities. There is need to establish national surveillance for healthcare-associated infections, to institutionalize monitoring of IPC practices, and to ensure an appropriate staffing–workload ratio in health facilities.

Funding: None

Disclosures:

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Anna Maruta

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Disagree

Christiana Kallon

Doi:10.1017/ice.2020.1176

Presentation Type:

Poster Presentation

The Design and Implementation of an IPC Certificate Course: Experiences From Sierra Leone

Jamine Weiss, US Centers for Diseases Control and Prevention; Amy Kolwaite, Centers for Disease Control and Prevention; Meghan Lyman, US Centers for Diseases Control and Prevention; Getachew Kassa, ICAP at Columbia University; Miriam Rabkin, ICAP at Columbia University; Anna Maruta, World Health Organization - Sierra Leone; Marita Murrman, ICAP at Columbia University; Hassan Benya, US Centers for Disease Control and Prevention; Christiana Conteh, Sierra Leone Ministry of Health and Sanitation

Background: Trained infection prevention and control (IPC) practitioners are critical to reducing healthcare-associated infections (HAI) and improving patient safety. Despite having HAI rates 3 times higher than high-income countries, many low- and middle-income countries (LMICs) lack trained IPC professionals. During the 2014–2016 Ebola outbreak in West Africa, the Sierra Leone Ministry of Health and Sanitation (MoHS) recognized this need and appointed and trained IPC focal persons at all district hospitals. Following the outbreak, MoHS requested assistance from the US CDC to develop and implement a comprehensive IPC training program for IPC specialists. **Methods:** The CDC, alongside its partners, convened a multidisciplinary team to develop an IPC certificate course. ICAP led the curriculum development process using a "backwards design" approach, starting with development of competencies and learning objectives, then designing an evaluation framework and learning strategies, and finally, identifying course content. The curriculum was based on existing resources, primarily designed for high-income countries, which were adapted to the Sierra Leone context and aligned with national IPC policies and guidelines. Additionally, an IPC steering committee, led by MoHS, was established to provide national leadership and oversight and make country-level decisions regarding accreditation and career pathways for IPC specialists. **Results:** The course includes three 2-week workshops over 6 months consisting of classroom didactics and hands-on activities. Topics include standard and transmission-based precautions, microbiology, laboratory, HAI, quality improvement, leadership, and scientific writing. Between sessions, participants conduct IPC activities at their work site and share results during subsequent workshops. Participants receive electronic tablets, which contain course content, assessment tools, and references, to upload their work into a cloud-based storage system for facilitators to provide feedback. They also receive in-person mentorship and connect with peers through a group messaging platform to share lessons learned. Participants' knowledge and skills are assessed using a before-and-after test and observing them perform IPC practices using standardized checklists. The first cohort of 25 participants will complete the course in November 2019. **Conclusions:** The IPC certificate course is the first comprehensive, competency-based IPC training in Sierra Leone. Successes, challenges, sustainability, and lessons learned remain to be determined; however, based on similar models, the course has the potential to significantly improve IPC in Sierra Leone. Additionally, it is a model that can be replicated in other resource-limited settings.

Funding: None

Disclosure: None

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Presentation Type:

Poster Presentation

The impact of Multimodal Strategy Intervention Program on Hand Hygiene Compliance at a University Teaching Hospital in Sierra Leone (Ola During Children's Hospital)

Isata Adama Bangura, Ministry of Health and Sanitation

Background: Hand hygiene (HH) is considered a primary measure necessary for reducing healthcare-associated infections (HAIs). Despite its significance, the lack of compliance among healthcare workers continues to be a problem throughout the world. The Ebola outbreak in our country has accelerated efforts to strengthen the health system in Sierra Leone. The WHO multimodal strategy on HH is an integral approach to the reduction of HAIs. Objectives: We sought to improve HH compliance among healthcare workers, to maintain a culture of safety in the healthcare facility, and to implement evidence-based practices for improved patient outcomes. Methods: A WHO multimodal strategy for direct observation of HH was adapted. We observed clinical staff (doctors, nurses and community health officers) in the intensive care unit (ICU), resuscitation ward (Resus) and emergency room (ER) from August to September 2019. A 4-day training session was conducted in 3 weeks. Provision of locally produced alcohol-based hand rub (ABHR), soap, and water emphasize the importance of HH. HH reminders were posted in all clinical areas. Healthcare worker knowledge about HH was assessed before and after the intervention. Results: We observed 1,535 HH opportunities, and only 706 HH actions were performed. Locally produced ABHR was used in 470 HH actions. Handwashing with soap and water was used in the remaining HH actions. Baseline compliance was 36% and increased to 50% in the first and second months. Healthcare worker knowledge scores at the baseline averaged 25% and increased to 65% after 2 months. HH compliance was highest in the ICU (44%), followed by the emergency ward (30%). The resuscitation ward had the lowest compliance (26%). Compliance among doctors was 32%, nurses 46%, and CHOs 22%. **Conclusions:** Promotion of HH is feasible and attainable and can be sustained in a resource- constrained setting using a multimodal improvement strategy. The local production, availability, and use of ABHR have significantly increased HH compliance. However, absolute compliance remains low, and a strong

commitment by hospital management and healthcare workers may be needed for further improvement.

Disclosures:

If I am providing recommendations involving clinical medicine, they will be based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients. All scientific research referred to will conform to the generally accepted standard of experimental design, data collection and analysis.

Disagree

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Disagree

I have disclosed all relevant financial relationships and I will disclose this information to learners.:

Disagree

Isata Adama Bangura

Funding: None

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Presentation Type:

Poster Presentation

The Importance of Environmental Screening in a Methicillin-Resistant *Staphylococcus aureus* (MRSA) Outbreak Investigation in a Transplant Unit

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Background: Methicillin-resistant *Staphylococcus aureus* (MRSA) colonization conveys a higher risk of invasive infection. The transplant cohort is a group of immunocompromised patients who are at higher risk of infection. We conducted an outbreak investigation of hospital-acquired MRSA colonization within the transplant unit, which led to the discovery of positive isolates within our environment and to changes in our hospital disinfection policies. **Methods:** Our transplant unit consists of 8 single, positive-pressure rooms housed separately at the side of a larger ward. Staffing from this unit differs from the rest of the shared ward that houses up to 60 patients. As part of hospital screening, we found that a patient admitted for a stem-cell transplant had acquired nosocomial MRSA colonization. Given the unusual occurrence of such an event, a root-cause analysis was conducted. **Results:** A meeting was convened together with nursing, medical staff, and ancillary staff. Identified areas of potential transmission were deemed equipment, staff, and patients, and screening was performed. Shared equipment included the portable electrocardiogram (ECG) machines and portable x-ray machines and boards. In particular, ECG machines were shared with the adjoining non-transplant oncology ward. The usual practice was to clean the machine after use but not prior to the next use. This was deemed a possible exposure risk in view of a recent MRSA outbreak in a separate section of the ward. Positive isolates were found on both the x-ray and ECG machines. All healthcare workers were screened and were negative for MRSA. Furthermore, 7 patients admitted during the same time period were also screened for MRSA and were negative. Given the concurrent outbreak within the ward, pulsed-field gel electrophoresis was performed for all MRSA isolates obtained and the outbreak strain. These were found to be nonclonal (Table 1). Work processes for both the cleaning of ECG and x-ray machines were enhanced and modified. Hand hygiene measures to ward and radiology staff were reinforced. Thus far, no further cases have been detected. **Conclusions:** The environment is an important part of outbreak investigation. Shared equipment is often overlooked during day to day processes but should not be neglected. This can result in changes to hospital disinfection policy.

Table 1. Summary of Screening Results

Category	No. Screened	Positive Screens
ECG machines	2	1
X-ray machines	2	1
X-ray plates	2	0
Nurses	29	0
Doctors	9	0
Radiology staff	10	0
Housekeeping staff	8	0
Patients	7	0
Total	69	2

Funding: None

Disclosures: Indumathi Venkatachalam reports receiving honoraria for speaking engagements for bioMérieux and Pfizer and serving on an expert panel for MSD Pharma.

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Poster Presentation

The Second Central Line Increases Central-Line–Associated Bloodstream Infection Risk by 80%: Implications for Inpatient Quality Reporting Programs

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Background: The NHSN methods for central-line–associated bloodstream infection (CLABSI) surveillance do not account for additive CLABSI risk of concurrent central lines. Past studies were small and modestly risk adjusted but quantified the risk to be ~2-fold. If the attributable risk is this high, facilities that serve high-acuity patients with medically indicated concurrent central-line use may disproportionally incur CMS payment penalties for having high CLABSI rates. We aimed to build evidence through analysis using improved risk adjustment of a multihospital CLABSI experience to influence NHSN CLABSI protocols to account for risks attributed to concurrent central lines. **Methods:** In a retrospective cohort of adult patients at 4 hospitals (range, 110–733 beds) from 2012 to 2017, we linked central-line data to patient encounter data (age, comorbidities, total parenteral nutrition, chemotherapy, CLABSI). Analysis was limited to patients with >2 central-line days, with either a single central line or concurrence of no more than 2 central lines where insertion and removal dates overlapped by >1 day. Propensity-score matching for likelihood of concurrence and