Access to Alcohol-Based Hand Rub Is Associated With Improved Hand Hygiene in an Ebola-Threatened District of Western Uganda

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Background: Ebola virus disease (EVD) is highly transmissible and has a high mortality rate. During outbreaks, EVD can spread across international borders. Inadequate hand hygiene places healthcare workers (HCWs) at increased risk for healthcare-associated infections, including EVD. In high-income countries, alcohol-based hand rub (ABHR) can improve hand hygiene compliance among HCWs in healthcare facilities (HCF). We evaluated local production and district-wide distribution of a WHO-recommended ABHR formulation and associations between ABHR availability in HCF and HCF hand hygiene compliance. Methods: The evaluation included 30 HCF in Kabarole District, located in Western Uganda near the border with the Democratic Republic of the Congo, where an EVD outbreak has been ongoing since August 2018. We recorded baseline hand hygiene practices before and after patient contact among 46 health-care workers at 30 HCFs in August 2018. Subsequently, in late 2018, WHO/UNICEF distributed commercially produced ABHR to all 30 HCFs in Kabarole as part of Ebola preparedness efforts. In February 2019, our crossover evaluation distributed 20 L locally produced ABHR to each of 15 HCFs. From June 24–July 5, 2019, we performed follow-up observations of hand hygiene practices among 68 HCWs across all 30 HCFs. We defined hand hygiene as handwashing with soap or using ABHR. We conducted focus groups with healthcare workers at baseline and follow-up. Results: We observed hand hygiene compliance before and after 203 and 308 patient contacts at baseline and follow-up, respectively. From baseline to follow-up, hand hygiene compliance before patient contact increased for ABHR use (0% to 17%) and handwashing with soap (0% to 5%), for a total increase from 0% to 22% (P < .0001). Similarly, hand hygiene after patient contact increased from baseline to follow-up for ABHR use (from 3% to 55%), and handwashing with soap decreased (from 12% to 7%), yielding a net increase in hand hygiene compliance after patient contact from 15% to 62% (P < .0001). Focus groups found that HCWs prefer ABHR to hand-washing because it is faster and more convenient. Conclusions: In an HCF in Kabarole District, the introduction of ABHR appeared to improve hand hygiene compliance. However, the confirmation of 3 EVD cases in Uganda 120 km from Kabarole District 2 weeks before our follow-up hand hygiene observations may have influenced healthcare worker behavior and hand hygiene compliance. Local production and district-wide distribution of ABHR is feasible and may contribute to improved hand hygiene compliance among healthcare workers.

Funding: None

Disclosures: Mohammed Lamorde, Contracted Research - Janssen Pharmaceutica, ViiV, Mylan

Presentation Type: Poster Presentation

Accuracy of the NHSN Central-Line–Associated Bloodstream Infections (CLABSIs) Definition: The Experience of Two Geographically Proximal Hospitals

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Background: Central-line–associated blood stream infections (CLABSIs) are linked with significant morbidity and mortality. A NHSN laboratory-confirmed bloodstream infection (LCBSI) has specific criteria to ascribe an infection to the central line or not. The criteria used to associate the pathogen to another site are restrictive. This objective to better classify CLABSI using enhanced criteria to gain a comprehensive understanding of the error so that appropriate reduction efforts are utilized. Methods: We conducted a retrospective review of medical records with NHSN-identified CLABSI from July 2017 to December 2018 at 2 geographically proximate hospitals. Trained infectious diseases personnel from tertiary-care academic medical centers, the University of Virginia Health System, a 600-bed medical center in Charlottesville, Virginia, and Virginia Commonwealth University Health System with 865 beds in Richmond, Virginia, reviewed charts. We defined “overcapped” or O-CLABSI into different categories: O-CLABSI-1 is bacteremia attributable to a primary infectious source; O-CLABSI-2 is bacteremia attributable to neutropenia with gastrointestinal translocation not meeting mucosal barrier injury criteria; O-CLABSI-3 is a positive