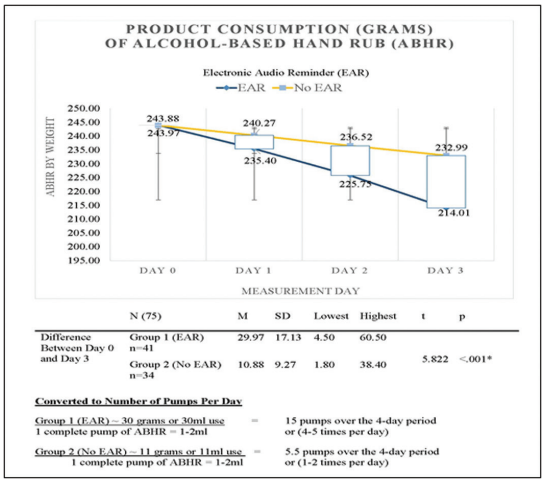
Conclusion. This study demonstrated that a short educational intervention that included a video, a handout, and a verbal audio reminder has the potential to increase patient-centered infection prevention in the acute care settings without increasing the workload of healthcare workers. Findings can be used for future infection prevention studies in institutionalized patients to improve self-managed care.

Figure 1 Product Consumption Per Group



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1334. Hand hygiene: Knowledge and Practices of Clinical Teachers in Selected Teaching Hospitals in Kenya

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Session: 151. HAI: Hand Hygiene
Friday, October 6, 2017: 12:30 PM

Background. Healthcare-associated infections lead to substantial morbidity and mortality worldwide, and adequate hand hygiene (HH) in the clinical setting is essential for prevention. Clinical teachers are central to the training of healthcare workers (HCW) as they teach and model safe practices in the clinical environment. However, there is limited research on the knowledge and practices of clinical teachers related to HH in teaching hospitals, particularly in African settings. We describe the knowledge and practices of HH amongst clinical teachers in selected teaching hospitals in Kenya.

Methods. Data were collected through self-administered standardized questionnaires with basic demographic, knowledge and practices about HH from clinical teachers employed at two teaching hospitals. Participating clinical teachers were anonymously audited for HH practices using an adapted World Health Organization tool. The audits consisted of 20–30 minutes observations in each ward

Results. Among 57 participants overall, 42 (73.7%) were nurses, 8 (14.0%) clinicians, and 5 (8.8%) therapists. Twenty-one (36.8%) of the participants had knowledge regarding the minimum time needed to practice HH using alcohol based hand rub, 14 (24.6%) knew that hand washing and hand rubbing should be performed in sequence. The combined knowledge score for each individual ranged from 0% to 94.1% with a mean of 50.1% (SD=20.1, Cl 95% 44.7- 55.4%). Hand hygiene compliance significantly varied by clinical instructor's type; nurses (42.7%) and therapists (38.0%) had the highest adherence and clinicians had the lowest 33.7% ($P = 0.0001$).

Conclusion. Clinical teachers in this study demonstrated knowledge gaps and poor practices related to HH. Since they serve as role models for future generations of healthcare workers, clinical teachers must recognize the importance of HH in preventing hospital-acquired infections, including when and how HH should be performed while following recommended practices.

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1335. Painting the Gown Red: Using a Colored Paint Quality Improvement Process to Evaluate Healthcare Worker Personal Protective Equipment for Highly Pathogenic Infections

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Background. Personal protective equipment (PPE) and strict infection control techniques are the primary methods by which healthcare workers (HCW) can avoid exposure during the treatment of patients with highly pathogenic infections such as Ebola Virus Disease (EVD) or the Middle East Respiratory Syndrome coronavirus (MERS-CoV). There is currently no consensus for the types of PPE that are recommended to be worn by HCWs, nor is there a universal process for the donning and doffing of PPE.

Methods. HCWs from Bellevue Hospital participate in quarterly PPE trainings as part of the Special Pathogens Program (SPP), which consist of didactic sessions as well as an evaluation of donning and doffing techniques. A total of 50 HCWs completed the training curriculum in 2017. During the doffing process, PPE trainers applied corn start powder paint (Chameleon Colors; American Fork, UT) to the participants' gloved hands between multiple steps of PPE removal. At the end of the process, the areas where paint was found on was documented including the outer surgical gown, the powered air purifying respirator (PAPR) helmet and shroud, the inner impermeable suit, the knee-high boots and boot covers, and the extended-cuff gloves.

Results. The areas of PPE that were most marked with paint were the lower shoulders and upper arms of the surgical gowns, the top sides of the PAPR shroud, the front upper chest area, and the center back of the inner impermeable suits. In a majority of cases no powder paint was noted on the knee-high boots. In a minority of cases, paint was observed on the inside upper chest area of the surgical gown. These paint markings were used to discuss potential breaches in PPE doffing technique in real-time, as well as identify areas to target in future PPE trainings.

Conclusion. The powdered paint quality improvement process for donning and doffing PPE is a method to evaluate the complex PPE dressing procedure. It is particularly useful given the fact that it is incumbent on each hospital or healthcare system to develop its own processes and procedures for PPE, as well as maintain readiness through periodic trainings. Powdered paint can identify vulnerabilities in their process as well as areas that require further education.

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1336. Patients' Family Empowering to Increase Hand Hygiene (HH) Compliance in Health-Care Workers (HCW) from a Hematology-Oncology Ward in Mexico City

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Background. HH is a key component to decrease infections in hospitals, but compliance in HCW remains low. We present a six-month strategy to empower patients' caregivers on HCW HH compliance.

Methods. HH compliance in HCWs was evaluated between June 1 and August 31, 2017 as recommended by WHO. Between September 1, 2016 and March 31, 2017 we undertook the empowering in the hematology-oncology ward (50 beds) from Instituto Nacional de Cancerologia, a cancer referral, teaching hospital in Mexico. To empower patients and their caregivers, a member of the team visited the patient and their relatives during the first 24h of hospital admission. Standarized information on HH and the importance of HCW compliance was given, along with a printed cartoon on HH opportunities (5 moments from WHO). Patients and their caregivers were trained to observe and record HH opportunties, an were invited to remind HCWs if HH omissions were observed. Data on HH compliance was collected monthly during the empowerment and 1 month after. Data was compared with the HH compliance from the 6 previous. We compared overall compliance and for each 5 HH moments before and after the empowering (chi ^{2} test).

Results. We empowered 82 caregivers (M: 25.6%) and F: 74.4%), mean age 44 years. 24.4% had completed primary education, and 13.1% had higher education. Mothers and spouses were the primary caregivers (28.1% and 36.6%). HH compliance increased in all 5 moments: Before touching a patient (M1) (B: 9.5%, A: 57.6%, $P = 0.005$); before a clean or aseptic procedure (M2) (B: 7.9%, A: 48%, $P = 0.002$); after body fluid exposure (M3) (B: 10%, A: 59%, $P = 0.0005$), after touching a patient (M4) (B: 7.4%, A: 57.9%, $P = 0.0005$), and after touching patient surroundings (M5) (B: 2.4%, A: 77.4%, $P = 0.0008$). Nurses achieved a higher increase on compliance compared with physicians. Caregivers recognition on HH increased for each opporunity, being more notorious for M2 (B:31.7%, A: 61.5%); M3 (B: 7.3%, A: 31.5%), and M4, (B: 36.5%, A: 68.7%). Perception on the importance of preventing health-care-related infections increased from 80.5% to 90.3%.

Conclusion. Empowering patients' primary caregivers was an effective intervention to increase HCWs HH compliance at a hematology-oncology ward. The effect of this intervention remains to be evaluated on the long-term basis, but demonstrate the importance of involving patients and their relatives on health-care delivery.

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1337. Performance of Zoster Vaccine Live (Zostavax): A Systematic Review of 12 years of Experimental and Observational Evidence

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Session: 152. Herpes Zoster Vaccine
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Background. One in three people in the U.S. will develop herpes zoster during their life. Zoster Vaccine Live (ZVL or Zostavax™), has been licensed in the U.S. since 2006 to prevent herpes zoster. ZVL protection has been shown to wane with time and estimates of effect can be imprecise. We performed a systematic review of the duration of efficacy and effectiveness of ZVL against herpes zoster (HZ).

Methods. We systematically searched PubMed, Embase, Cochrane, and clinicaltrials.gov for vaccine efficacy or effectiveness (VE) studies of ZVL. Two authors independently screened each title and abstract, and potential VE studies were reviewed in-depth. Eligibility criteria included original data on ZVL prevention of HZ in a general population of