



Fig. 1

carbapenemase gene was not associated with these outcomes. **Conclusions:** Molecular sequencing of a convenience sample of CRE bacteriuria support *K. pneumoniae* ST258 harboring *blaKPC-3* being distributed throughout the Atlanta area, across the healthcare continuum. Overall mortality was high in this population, but the presence of carbapenemase genes was not associated with worse outcomes.

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Neonatal Exposure to *Staphylococcus aureus* in the Neonatal Intensive Care Unit: Identifying Reservoirs Among Colonized Healthcare Workers and Parents

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Background: *Staphylococcus aureus* (*S. aureus*) is the second most common cause of healthcare-acquired infections in neonates. *S. aureus* colonization is a known risk factor for invasive disease. Aside from healthcare workers (HCWs), recent data suggest that parents are important reservoirs of *S. aureus* in the neonatal

intensive care unit (NICU). *S. aureus* typically colonizes the nares, but it can also colonize other anatomic locations such as the throat. **Objective:** Our objectives were to identify and compare *S. aureus* colonization among HCWs and parents and to identify and compare different sites of *S. aureus* colonization. **Methods:** Between April 2015 and July 2016, we performed 4 point-prevalence surveys and collected nares and throat swabs from HCWs (nurses, respiratory therapists, nurse practitioners, and physicians) at a quaternary-care NICU. During an overlapping period, we screened parents of neonates in the NICU for *S. aureus* colonization using nares, throat, groin, and perianal cultures as a part of an ongoing randomized control trial. Cultures from both studies were collected using standardized methods. ESwabs were used to collect samples, which were inoculated into broth for enrichment and subsequently cultured onto chromogenic agar to differentiate between MSSA and MRSA. **Results:** The prevalence of methicillin susceptible *S. aureus* (MSSA) colonization was 46% (105/226) in HCWs and 28% (239/842) in parents. The prevalence of methicillin resistant *S. aureus* (MRSA) colonization was 2.2% (5/226) in HCWs and 2.2% (19/842) in parents. Of those who were colonized with *S. aureus*, 35% (79/226) of HCWs and 46.5% (160/344) of parents had nares and throat colonization while 11.5% (26/226) of HCWs and 12.2% (42/344) of parents had only throat colonization but not nares colonization. Of those who were MRSA colonized, 1.3% (3/226) of HCWs and 1.8% (15/842) of parents had a positive nares and throat culture as compared to 0.9% (2/226) of HCWs and 0.2% (2/842) of parents had only positive throat cultures. Additionally, 68% (175/257) were colonized with *S. aureus* at any swabbed site including nares, throat, groin, or perianal areas. However, only 30% (77/257) of parents had only nares colonization as compared to 58.8% (151/257) had throat and nares colonization, 38.1% (98/257) had nares and groin colonization, and

37.4% (96/257) had nares and perianal colonization. **Conclusions:** HCWs had greater prevalence of *S. aureus* colonization compared to parents. As expected, the nares was the most common site of MSSA and MRSA, but a large proportion of *S. aureus* colonized HCWs and parents had only throat colonization. Given the prevalence of *S. aureus* in non-nares sites of HCWs and parents in the NICU, further studies should examine the role of non-nares carriers in the transmission of *S. aureus* in this population.

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Onsite Mentorship Model for Isolation and Management of Viral Hemorrhagic Fever Syndromes at a Ugandan Hospital

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Background: Uganda is prone to viral hemorrhagic fever (VHF) outbreaks. Infection prevention and control capacity is critical to supporting patient care, to preventing nosocomial transmission to health workers, and to limiting spread within the community. Offsite didactic training may increase healthcare worker knowledge, but this approach may be inadequate for assuring confident execution of practical clinical tasks in patient care settings. We aimed to develop a competency-based, onsite mentorship model for sentinel case isolation and management of viral hemorrhagic fever syndromes in Uganda. **Methods:** The Naguru Regional Referral Hospital (China Uganda Friendship Hospital) Kampala was selected as a site for training after its designation by the Uganda Ministry of Health (MoH) as facility for isolation of healthcare workers with suspected or confirmed VHF. The

Table 1.

Table 1: Mentorship Schedule

Week	Scenario-based training	Details
Week 1	Infection Prevention and Control and Personal Protective Equipment (PPE) basics and introduction to patient care	<ul style="list-style-type: none"> • Donning and doffing PPE • Isolation/treatment unit set-up and organization • Hand hygiene • Clinical management of a patient under investigation
Week 2	Clinical review and sample collection.	<ul style="list-style-type: none"> • Phlebotomy and intravenous access • Clinical examination on confirmed ward • Patient monitoring • Sample packaging
Week 3	Management of breaches in PPE and spill management.	<ul style="list-style-type: none"> • Breaches in PPE • Clinical management of the agitated patient • Breaches in gloves and performing the leak test • Management and cleaning of infectious spills on the floor
Week 4	Management of waste and decontamination, and ongoing care of the confirmed viral hemorrhagic fever case	<ul style="list-style-type: none"> • Waste treatment and disposal • Clinical management of a confirmed patient • Decontamination of goggles, gumboots and sprayer knapsack
Week 5	Repeat drill	<ul style="list-style-type: none"> • Waste treatment and disposal
Week 6	Functional Exercise I	<ul style="list-style-type: none"> • Suspected case identification • Suspect patient triage and transfer into containment and provision of initial clinical care
Week 7	Repeat drill	<ul style="list-style-type: none"> • Breaches in PPE
Week 8	Functional Exercise II	<ul style="list-style-type: none"> • Clinical care of the shocked patient and dead body management
Week 9	Repeat drill Communication	<ul style="list-style-type: none"> • Clinical management of a confirmed patient • Communication in red zone
Week 10	Functional Exercise III	<ul style="list-style-type: none"> • Sample drawing and packaging • Management of breaches in PPE • Management of spills on the health worker • Waste management
Week 11	Repeat drill Communication	<ul style="list-style-type: none"> • Management and cleaning of infectious spills on the floor • Incident reporting
Week 12	Functional Exercise IV	<ul style="list-style-type: none"> • Provision of care to a severely ill patient (safe care, hygiene, vitals, vomiting, diarrhea, pain)