

possible *Staphylococcus* spp. were tested with latex agglutination, and positive isolates were plated on CHROMagar™ MSSA/MRSA. Fisher's exact/Wilcoxon rank-sum tests were used to compare the categorical/numerical data between BBE and sleeved providers using SAS version 9.4.

Results. Sixty-three HCW participated; 30 were BBE and 33 sleeved. A comparison of the 2 groups is shown in Table 1. The majority of bacterial growth was morphologically consistent with skin flora; no Gram-negative rods grew. The bioburden estimates and presence of *Staphylococcus aureus* were not different between the groups ($P = 0.099$ and 0.325 , respectively). Surveys indicated that BBE providers were more likely to be working in freshly laundered garments ($P < 0.0001$); this was true for all BBE providers except 2 HCW on shift >24 hours. Three sleeved individuals could not remember when they last laundered the garment in which they were providing clinical care.

Conclusion. HCW laundering practices remain suboptimal, particularly among sleeved HCW. The potential impact of hand hygiene on comparative bioburden between sleeved and BBE HCWs remains unknown and is the focus of future investigations.

Figure 1:

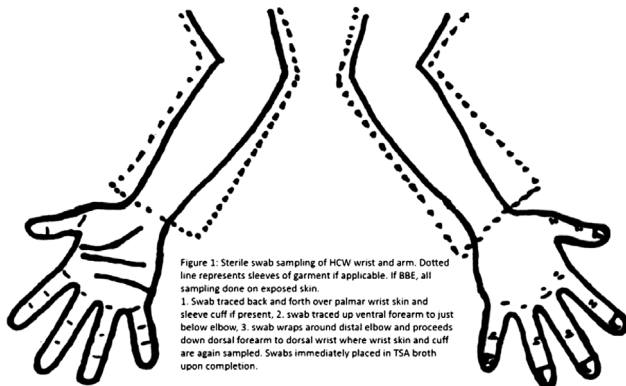


Table 1: Comparison of BBE and Sleeved Providers:

	BBE (N=30)	Sleeved (N=33)	p value
Provider type: n(%)			
Physician	12 (40%)	27 (82%)	<0.0001
Nurse	12 (40%)	0 (0%)	
Other	6 (20%)	5 (15%)	
Clean garments*: n(%)	28 (93%)	16 (48%)	<0.0001
<i>Staphylococcus aureus</i> : n(%)	7(23%)	4(12%)	0.325
MRSA: n(%)	6(20%)	4(12%)	0.498
Optical density**: mean(SD)	2.8(1.8)	3.5(1.5)	0.099

*defined as garment laundered in the last 24 hours

**OD estimated using McFarland Standards

Disclosures. All Authors: No reported Disclosures.

1839. Contact Precautions' Effects on MRSA Transmission in Department of Veterans Affairs Hospitals

Karim Khader, PhD¹; Alun Thomas, PhD²; Lindsay D. Visnovsky, PhD, MS³; Damon Toth, PhD¹; Lindsay T. Keegan, PhD²; Makoto M. Jones, MD¹; Michael Rubin, MD/PhD¹ and Matthew H. Samore, MD⁴; IDEAS Center of Innovation, Veterans Affairs Salt Lake City Health Care System, Salt Lake City, Utah; ²Division of Epidemiology, University of Utah School of Medicine, Salt Lake City, Utah; ³University of Utah School of Medicine and IDEAS Center of Innovation, Veterans Affairs Salt Lake City Health Care System, Salt Lake City, Utah; ⁴VA Salt Lake City Healthcare System, Salt Lake City, Utah

Session: 185. *Staph aureus*: New Perspectives on an Old Foe

Friday, October 4, 2019: 2:45 PM

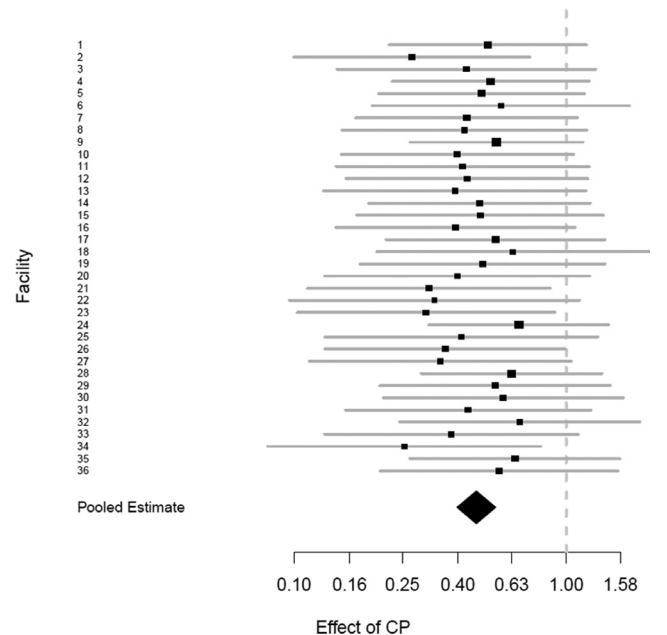
Background. In 2007, the Department of Veterans Affairs (VA) implemented the methicillin-resistant *Staphylococcus aureus* (MRSA) Prevention Initiative nationally in acute care facilities (ACFs). The initiative included universal nasal surveillance for MRSA colonization and implementation of contact precautions (CP) for identified carriers for the duration of their stay. Despite subsequent declines in MRSA infection rates in the VA, debate on CP efficacy continues, due to limited and inconclusive direct evidence. This study estimated CP impact on MRSA transmission in the VA.

Methods. We analyzed 1 year of data from 36 VA ACFs in 2014 using a Bayesian transmission model. The data included admission, discharge, and surveillance and clinical test results for MRSA. Per the MRSA Prevention Initiative protocol that placed

known carriers on CP, we assumed patients were on CP starting 12 hours after a positive surveillance test, 24 hours after a positive clinical culture, or at admission if the patient had a positive test within 365 days prior to admission. Our model produced estimates of ward-specific transmission rate, surveillance test sensitivity, importation probability, and the CP effect parameter (CPe). For $CPe < 1$, CP reduced transmission. Additionally, we combined the estimates of CPe using a random-effects model with inverse variance weights to derive pooled estimates and corresponding standard errors.

Results. Facility size varied with a median daily census of 70 patients per day (range: 44–111). During the study period, 144,386 individuals were admitted into one of 36 ACFs, for 215,207 total admissions. The median percentage of admissions requiring contact precautions was 11.0% (range: 6.4%–16.1%). The estimated CPe was less than one in each of the 36 facilities with a median of 0.43 (range: 0.25–0.68). Our pooled estimate of CPe across all facilities was 0.47 (95% CI; 0.40, 0.55).

Conclusion. We found evidence of reduced MRSA transmission from patients on CP. This result was statistically significant in 5 of the 36 facilities and our pooled estimate suggests contact precautions could reduce the transmission rate by half. Further work is needed to account for imperfect compliance with CP, and for patients on CP for other reasons.



Disclosures. All Authors: No reported Disclosures.

1872. Neurodevelopment in Apparently Normal Infants from Zika Virus Positive Pregnancies

Sarah B. Mulkey, MD, PhD¹; Margarita Arroyave-Wessel, MPH¹; Colleen Peyton, PT, DPT²; Dorothy Bulas, MD¹; Gilbert Vezina, MD¹; Yamil Fourzali, MD³; Armando Morales, MD⁴; Christopher Swisher, BS¹; Caitie Cristante, BS¹; Stephanie Russo, BS¹; Youssef Kousa, DO, PhD¹; Jiji Jiang, MS¹; Michael Msall, MD⁴; Robert McCarter, ScD¹; Adre du Plessis, MBChB, MPH¹; Carlos Cure, MD⁵ and Roberta DeBiasi, MD, MS⁶; ¹Children's National Health System, Rockville, Maryland; ²Feinberg School of Medicine, Northwestern University, Chicago, Illinois; ³Sabbag Radiologos, Barranquilla, Atlantico, Colombia; ⁴University of Chicago Early Intervention Center, Chicago, Illinois; ⁵BIOMELAB, Barranquilla, Atlantico, Colombia; ⁶Children's National Health System, Washington, DC

Session: 196. Pediatric Emerging Viral Diseases

Friday, October 4, 2019: 3:15 PM

Background. Congenital Zika syndrome (CZS) is seen in 5–12% of newborns from Zika virus (ZIKV)-infected pregnancies and includes severe neurologic abnormalities. However, the majority of ZIKV-exposed newborns do not have CZS. The risk for neurodevelopmental impairment for infants without CZS following in utero ZIKV is not well known. The objective was to determine whether infants without CZS exposed to ZIKV in utero, have normal neurodevelopment.

Methods. We performed a longitudinal study of neurodevelopment in Colombia for infants exposed to ZIKV in utero who had a normal fetal brain MRI (Mulkey et al, *JAMA Peds* 2019) and normal head circumference at birth. Infant development was assessed by the Warner Initial Developmental Evaluation of Adaptive and Functional Skills (WIDEA) and the Alberta Infant Motor Scale (AIMS) between 6 and 18 months of age. In-person training was done by a neurologist. The AIMS were video-recorded and scored centrally. Interrater reliability for the novel method of video-based AIMS was determined. WIDEA and AIMS scores were converted to Z-scores compared with normative samples. We also compared development between infants with normal and nonspecific findings on cranial ultrasound (US).