

history or age <12 months). Susceptibility status directed disease control intervention, and contact follow-up was 21 days. **Results:** On December 14, all 3 siblings (ages 8–11 years) had laboratory-confirmed measles and were hospitalized. CHCO's rapid isolation of the 3 cases within 5 minutes after presentation to the ED eliminated the need for exposure assessment on the day of hospitalization. However on December 12, the 1 ill sibling potentially exposed 258 ED contacts (90 patients, 168 accompanying adults) and 22 HCWs. The PH department identified 158 immune contacts (61%), 75 unconfirmed immune contacts (29%), and 19 susceptible contacts (8%); 6 contacts (2%) were lost to follow-up. Overall, 15 susceptible contacts received immune globulin (IG) postexposure prophylaxis and 4 contacts were placed on 21-day quarantine. Unconfirmed immune contacts self-monitored for measles symptoms and were contacted weekly by PH for 21 days. Moreover, 20 immune HCWs monitored symptoms daily; 2 susceptible HCWs were placed on 21-day quarantine. No secondary cases were identified. **Conclusions:** Rapid measles identification and isolation, high levels (90%) of immunity among contacts, prompt administration of IG, and effective collaboration between PH and CHCO prevented transmission.

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Presentation Type:

Late Breaker Oral

Performance of Mumps PCR and Serologic Testing During a University-Associated Mumps Outbreak in Charleston, SC

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Background: Sensitive diagnostic testing is critical in responses to mumps outbreaks. PCR testing of buccal swabs is the most sensitive diagnostic test, but IgM serology remains standard in much of the United States. We provided testing guidance stressing use of mumps PCR to ambulatory clinics and emergency departments in addition to the standard serologic testing for acute mumps beginning in 2018. We compared the performance of PCR and IgM serology to assess cases of parotitis presenting during a community outbreak of mumps in fall 2019 associated with a university in Charleston, SC. **Methods:** All patients tested for mumps who presented to our facility (ER and ambulatory clinics) with mumps PCR and/or mumps IgM ordered between September 2019 and January 2020 were included. Mumps PCRs were sent to a commercial reference laboratory (ARUP). Confirmed cases were defined as having a positive mumps PCR and/or IgM with parotitis. Clinical characteristics of mumps patients including age, duration of symptoms, MMR history, and association with the university were obtained by chart review. **Results:** Mumps was confirmed in 15 of 44 tested patients (34%), with 15 of 15 mumps patients (100%) having positive PCR and 1 of 15 patients (7%) and 1 of 15 patients (7%) having positive and equivocal mumps IgM serologies, respectively. Only 1 patient who did not meet our mumps case definition (no CT imaging evidence of parotitis, no fevers, chronic sinus symptoms) had a positive PCR and had recent receipt of a third MMR dose in response to the ongoing outbreak. Median age for mumps patients was 22 years (range, 15–48) with 8 of 15 cases (53%) detected among university students and an additional 2 cases having close connections to the university associated with the outbreak. Only 1 of 15 mumps patients (6.7%) was febrile at presentation (median temperature,

37.2°C) and mumps cases presented for testing ≤ 3 days for 7 of 15 cases (47%) (range, 0–13 days from symptom onset). No cases were diagnosed by IgM only, and 10 of 15 mumps cases had some recollection of remote MMR immunization, whereas 6 of 15 (40%) had 2 documented MMR doses at <5 years of age. **Conclusion:** Serologic IgM testing for diagnosis of mumps appears insensitive for detection of cases in outbreaks within highly immunized adult patients. Although our recommended shift to PCR likely enhanced case finding during this outbreak, the potential for false-positive PCRs due to vaccine strain shedding following third-dose MMR immunization may also be considered a threat to the specificity of the test during outbreak situations.

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Late Breaker Oral

Potential Impact of CDC's Enhanced Barrier Precautions Recommendations on Veterans' Affairs Long-Term Care Facilities

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Background: We previously showed that ~25% of Veterans' Affairs (VA) long-term care facility (LTCF) residents had 1 or more indwelling medical devices. Of these devices, 36% were indwelling urinary catheters, 18% were percutaneous gastrostomy tubes, 12% were peripherally inserted central catheters, 8% were suprapubic urinary catheters, and 6% were peripheral intravenous catheters. Approximately 11% of those with an indwelling device developed an LTCF-acquired infection, compared to 3.5% of those without a device. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a targeted multidrug-resistant organism (MDRO) in all VA LTCFs nationwide. All admissions to VA LTCFs are screened for MRSA carriage upon admission and, since 2013, those that screen positive (~21%) are placed in VA enhanced barrier precautions (EBPs). VA EBPs require that all healthcare workers entering a resident's bedroom don gowns and gloves for specific activities likely to be associated with contamination of the worker's hands and clothes. With proper hand hygiene and clean clothing, the colonized resident is encouraged to leave their bedroom and participate fully in all LTCF activities. In July 2019, the US Centers for Disease Control and Prevention (CDC) recommended the use of EBPs for all residents in LTCFs with a wound or device regardless of their colonization status if a resident is identified within the facility with novel or targeted MDROs including panresistant organisms, carbapenemase-producing gram-negative bacteria, and *Candida auris*. **Methods:** We assessed the potential impact of this recommendation on VA LTCFs by asking our 133 LTCFs to do a 1-day point-prevalence survey. **Results:** In total, 63 sites (47%) responded. On the survey day, there were 4,777 residents in the participating facilities, of whom 891 (18.7%) were under EBPs or contact precautions (CPs) for MRSA or other MDROs. Moreover, 963 (20.2%) residents (not already in EBP or CP) had a wound or an indwelling device such as central venous catheter, urinary catheter, feeding tube, tracheostomy or were on a ventilator (if >1 device, resident counted only once). If newly published CDC recommendations were implemented for novel or targeted MDRO precautions in VA LTCFs nationwide, 1,854 residents (38.8%) in VA LTCFs would be placed under

EBPs or CPs. **Conclusions:** In VA LTCFs, adopting the CDC recommendation to place all patients with wounds or indwelling devices under EBPs regardless of colonization status would increase the percentage of residents on transmission-based precautions to ~40% (nearly doubling those in an isolation precaution status).

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Oral Presentation

A Multicenter Point-Prevalence Survey of Antibiotic Use in Haiti, June–August 2019: Findings and Implications

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Background: Inappropriate use of antibiotics in hospitalized settings contributes to the selection and emergence of antimicrobial-resistant pathogens. This trend is particularly challenging in resource-constrained settings where the high burden of infectious diseases, combined with suboptimal infection prevention and control measures, are further complicated by limited access to reliable microbiological services to inform antimicrobial prescription at the patient level. In this study, we describe the use of antibiotics in selected Haitian hospitals; we aimed to create a baseline to inform antimicrobial stewardship interventions. **Methods:** WHO/PAHO Hospital Antibiotic Use Point Prevalence Survey (HAMU-PPS) were conducted in 6 acute-care Haitian hospitals: La-Paix and Hospital-Albert (June 2019) and Hospital-Universitaire-Justinien, Hospital-Bienfaisance-de-Pignon, Hospital-Sacre-Coeur-de-Milot, and Hospital Immaculee-Conception-des-Cayes (July–August 2019) in 6 different cities. Trained data collectors completed electronic forms using REDCap software including data related to antibiotic use, indications, and utilization of laboratory services from medical records of all inpatients meeting study inclusion criteria. Analyses were done using Microsoft Excel software (v2016). **Results:** In total, 510 inpatients records were surveyed. Patients ages ranged from 0 to 92, with median age of 27 years (IQR, 4–47); 269 were women (57.7%) and 239 were men (46.9%). The prevalence of antibiotic use was 73% (95% CI, 68.2%–81.8 %); this prevalence was 74.5% among men (178 of 239) and 70.6% among women (190 of 269). The highest antibiotic use was observed among children aged <1 year (98 of 108, 90.7%). Of the patients on antibiotics, 63% were treated with >1 antibiotic. In addition, 384 indications

for antibiotic prescription were reported. Of the indications for antibiotics therapy, 49.7% (191 of 384) were for treatment, and 49% (188 of 384) were for prophylaxis. Of the treatments, 92% were empiric with 6% reported as targeted. Only 13% (50 of 370) of the patient records indicated that samples were taken for microbiological identification. Of those, 9 had results for culture, and 1 had results for drug susceptibility. The most commonly reported antibiotic was ceftriaxone (n = 110, 23%) followed by

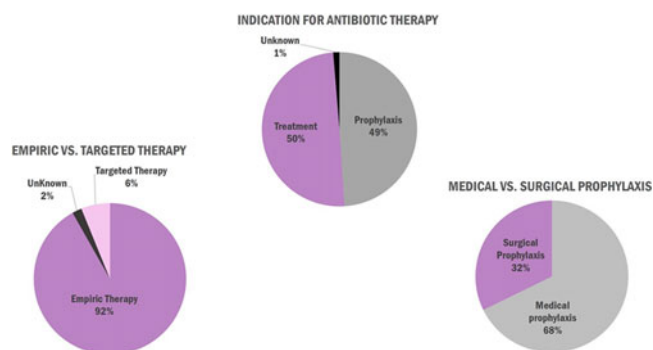


Fig. 1.

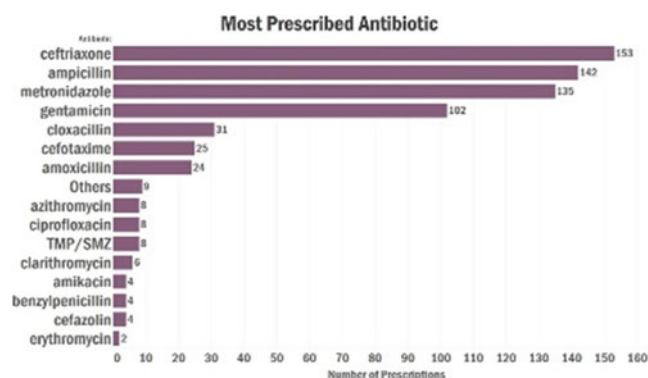


Fig. 2.

Point Prevalence for antibiotic use by Age Group (Years)

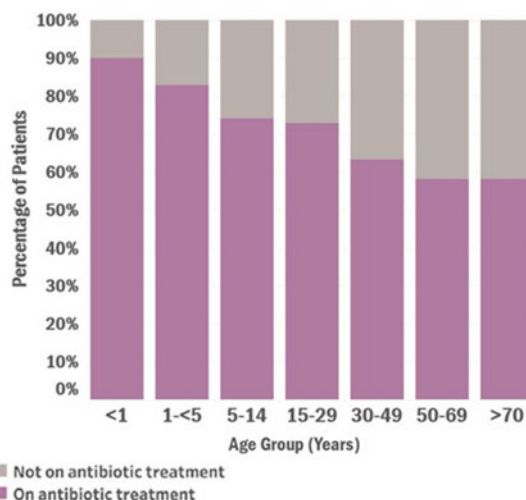


Fig. 3.