Gabrielle M. Gussin, Stryker (Sage Products):

C. auris

Method:
The reduction

None

In February 2019, the Orange County Health Care

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Antibiotic-resistant organisms (AROs) are associated

Investigations into antimicrobial use and the burden

colonized

0.85), sug-

cautions only were most common (54 of 94, 57.4%) and were

whom 94 of 961 (9.8%) were on additional precautions. Contact pre-

tions were used.

Acute Care Point Prevalence (CNAPP) survey. All inpatients on

gathered as part of the national Canadian, Rural, and Northern

facilities over a 24-hour period from February 4

Methods

for rural settings are scarce. In this stud, we aimed to fill this gap.

have investigated AROs and healthcare-associated infections

with greater disease severity and poor outcomes. Previous studies

microbial did not meet study definitions for infection. It will be

important to continue this type of surveillance in this understudied

population to monitor the burden of HAIs over time, to establish

antimicrobial utilization trends, and to continue to identify potential

antimicrobial stewardship initiatives.

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Disclosures: None

Funding:

Presentation Type:

Top Rated Posters

Public Health Oversight of Interfacility Transfers During a

Candida auris Outbreak—Orange County, California, 2019

Kathleen O’Donnell, California Department of Public Health; Ellora Karmarkar, Epidemic Intelligence Service, Division of Scientific Education and Professional Development, Centers for Disease Control and Prevention; Brendan R Jackson, US Centers for Disease Control and Prevention; Erin Epson, California Department of Public Health, Healthcare-Associated Infections Program; Matthew Zahn, Orange County Health Care Agency

Background: In February 2019, the Orange County Health Care Agency (OCHCA) identified an outbreak of Candida auris, an emerging fungus that spreads rapidly in healthcare facilities. Patients in long-term acute-care hospitals (LTACHs) and skilled nursing facilities that provide ventilator care (vSNFs) are at highest risk for C. auris colonization. With assistance from the California Department of Public Health and the Centers for Disease Control and Prevention, OCHCA instituted enhanced surveillance, communication, and screening processes for patients colonized with or exposed to C. auris. Method: OCHCA implemented enhanced surveil-

ance by conducting point-prevalence surveys (PPSs) at all 3 LTACHs and all 14 vSNFs in the county. Colonized patients were identified through axilla/groin skin swabbing with C. auris detected by PCR and/or culture. In facilities where >1 C. auris colonized patient was found, PPSs were repeated every 2 weeks to identify ongoing transmission. Retrospective case finding was instituted at 2 LTACHs with a high burden of colonized patients; OCHCA con-
tacted patients discharged after January 1, 2019, and offered C. auris screening. OCHCA tracked the admission or discharge of all colon-
ized patients, and facilities with ongoing transmission were required to report transfers of any patient, regardless of colonization status. OCHCA tracked all patients discharged from facilities with ongoing transmission to ensure that accepting facilities conducted admission
surveillance testing of exposed patients and implemented appropriate environmental and contact precautions. Result: From February–October 2019, 192 colonized patients were identified. All 3 LTACHs and 6 of 14 VSNFs had at least 1 C. auris–colonized patient identified on initial PPS, and 2 facilities had ongoing transmission identified on serial PPS. OCHCA followed 96 colonized patients transferred a total of 230 times (an average of 2.4 transfers per patient) (Fig. 1) and 677 exposed patients discharged from facilities with ongoing transmission (Fig. 2). Admission screening of 252 exposed patients on transfer identified 13 (5.2%) C. auris–colonized patients. As of November 1, 2019, these 13 patients were admitted 21 times to a total of 6 acute-care hospitals, 2 LTACHs, and 3 vSNFs. Transferring facilities did not consistently communicate the colonized patient’s status and the requirements for isolation and testing of exposed patients. Conclusion: OCHCA oversight of interfacility transfer, though labor-intensive, improved identification of patients colonized with C. auris and implementation of appropriate environmental and contact precautions, reducing the risk of transmission in receiving healthcare facilities.

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Disclosures: None

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Presentation Type: Top Rated Posters

Recurrent Clostridioides difficile infection can be predicted using inflammatory mediator and toxin activity levels

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Background: Clostridioides difficile infection (CDI) frequently recurs after initial treatment. Predicting recurrent CDI (rCDI) early in the disease course can assist clinicians in their decision making and improve outcomes. However, predictions based on clinical criteria alone are not accurate and/or do not validate other results. Here, we tested the hypothesis that circulating and stool-derived inflammatory mediators predict rCDI.

Methods: Consecutive subjects with available specimens at diagnosis were included if they tested positive for toxigenic C. difficile (+ enzyme immunoassay [EIA] for glutamate dehydrogenase and toxins A/B, with reflex to PCR for the tcdB gene for discordants). Stool was thawed on ice, diluted 1:1 in PBS with protease inhibitor, centrifuged, and used immediately. A 17-plex panel of inflammatory mediators was run on a Luminex 200 machine using a custom antibody-linked bead array. Prior to analysis, all measurements were normalized and log-transformed. Stool toxin activity levels were quantified using a custom cell-culture assay. Recurrence was defined as a second episode of CDI within 100 days. Ordination characterized variation in the panel between outcomes, tested with a permutational, multivariate ANOVA. Machine learning via elastic net regression with 100 iterations of 5-fold cross validation selected the optimal model and the area under the receiver operator characteristic curve (AuROC) was computed. Sensitivity analyses excluding those that died and/or lived >100 km away were performed.

Results: We included 186 subjects, with 95 women (51.1%) and average age of 55.9 years (±20). More patients were diagnosed by PCR than toxin EIA (170 vs 55, respectively). Death, rCDI, and no rCDI occurred in 32 (17.2%), 36 (19.4%), and 118 (63.4%) subjects, respectively. Ordination revealed that