Background: *Candida auris* is an emerging fungus that presents a serious threat to healthcare facilities. Because Chicago is a locus of high prevalence, the Illinois Department of Public Health (IDPH) released guidelines for acute-care hospitals to screen and isolate patients who are directly admitted from either a skilled nursing or long-term acute-care facility (SNF or LTAC) with a tracheostomy or on a ventilator. This project was undertaken to evaluate applicability of IDPH criteria to our inpatient population and to develop effective tools to implement a surveillance system. **Methods:** To assess IDPH criteria, we reviewed local case epidemiology and conducted a point-prevalence survey of all inpatients on May 22, 2019. To implement a new surveillance program, we convened a multidisciplinary team to assess the functionality of the electronic health record (EHR), to create clinician education, and to develop new electronic tools. **Results:** Between June 2018 and August 2019, 20 unique *C. auris* patients were admitted to our facility, and only 2 (10%) met IDPH criteria. During the point-prevalence survey, 609 inpatients were assessed, and only 7 (1%) met IDPH criteria (Table 1). Therefore, we created a new surveillance program tailored to our local epidemiology. To do this, we convened a multidisciplinary team with representatives from infection prevention, nursing informatics, patient care, microbiology and information technology (IT). The IT build took 5 months, and the work products included a screening questionnaire integrated into the nurse admission navigator, new microbiology laboratory orders for *C. auris* culture, a new internal isolation category that we deemed "prior location-based isolation" (PLI), and an electronic report to automatically aggregate data. To streamline workflow, best-practice alerts (BPAs) were designed to automatically order isolation and laboratory tests based on responses to the admission questionnaire (Fig. 1). Additionally, tools were created catch missed opportunities for isolation and to automatically update isolation status based on final culture results. **Conclusions:** Local epidemiology must be considered when designing *C. auris* surveillance programs. Stakeholder engagement and informatics were key to successful program implementation. The EHR must be nimble to address updated recommendations for organisms of concern. Data must be continuously evaluated to measure success of a targeted screening and surveillance program.

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Implications of Oxacillin-Resistant, *mecA*-Negative *Staphylococcus aureus* Detected in NICU MRSA Surveillance Cultures

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Background: Weekly surveillance to identify neonatal intensive care unit (NICU) infants with methicillin-resistant *S. aureus* (MRSA) nasal colonization was performed using Remel Spectra MRSA chromogenic media. An increased MRSA colonization rate from baseline was detected in 2019, prompting additional review of all positive MRSA NICU screening cultures from 2019. **Methods:** A subset of 23 positive cultures were interrogated in detail. Species-level identification was confirmed using matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) with a Bruker Biotyper. Penicillin-binding protein 2a (PBP2a) testing was performed using the Alere culture colony test, and cefoxitin and oxacillin susceptibility were assessed via Kirby-Bauer disk-diffusion methods (for the purpose of this analysis, oxacillin zone sizes ≥18 mm were considered susceptible). Molecular detection of *mecA* and *mecC* genes using PCR was performed. **Results:** All 23 isolates in the subset group were confirmed as *S. aureus* based on MALDI-TOF testing. Moreover, 8 isolates (35%) were confirmed as MRSA based on cefoxitin susceptibility, positive rapid PBP2a testing, and *mecA* PCR results. Overall, 15 isolates (65%) tested cefoxitin-susceptible and PBP2a negative with negative *mecA* and *mecC* gene testing. Of these, 1 (7%) tested oxacillin-susceptible based on disk-diffusion testing, consistent with methicillin-susceptible *S. aureus* (MSSA). The remaining 14 isolates (93%) tested oxacillin resistant based on oxacillin zone size. **Conclusions:** Our findings indicate the detection of *mecA/mecC* negative *S. aureus* isolates demonstrating oxacillin resistance and growth on Remel Spectra MRSA chromogenic media. These results have important implications for infection prevention surveillance efforts to detect MRSA and raise questions regarding optimal antibiotic therapy in patients with isolates displaying this phenotype.

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Importance of the Respiratory Tract in Carbapenemase-Producing Enterobacteriaceae Spread

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Background: Carbapenemase-producing *Enterobacteriaceae* (CPE) causes infections associated with high mortality rates among hospitalized patients. CPE transmission occurs frequently, and prevention of patient-to-patient transmission is a priority. However, transmission pathways are not yet completely understood. The colonization of the respiratory tract with a CPE may lead to a higher risk of contamination of the patient's environment increasing the spread of CPE. **Objective:** We estimated the rate of CPE spread when respiratory tract infection or colonization is present. **Methods:** We studied CPE dissemination analyzing a cohort of patients admitted between January 2013 and December 2018 at the university hospital complex of A Coruña, a tertiary-care hospital. All patients who were hospitalized in the same room as