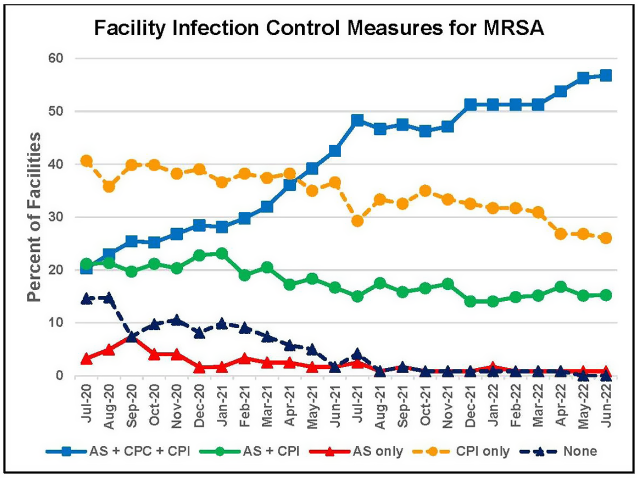


Table 1. Methicillin-resistant *Staphylococcus aureus* (MRSA) healthcare-associated infection (HAI) rates, all acute care units, all infection sites, by facility infection prevention and control policy category

Policy Category	Number of Data Months	Number of HAIs	Patient-Days	Rate*	95% CI†
AS + CPC + CPI§	1,163	153	1,708,867	0.09	0.08 - 0.10
AS + CPI	519	106	1,075,329	0.10	0.08 - 0.12
AS alone	63	15	131,613	0.11	0.06 - 0.19
CPI only	1,015	250	2,105,012	0.12	0.10 - 0.13
No AS or CPC or CPI	142	44	204,353	0.22	0.16 - 0.29

*Number of HAIs/1,000 patient-days, †95% confidence interval, §AS = active surveillance for MRSA upon facility admission, CPC = contact precautions for MRSA colonized patients, CPI = contact precautions for MRSA infected patients

Table 2. Comparisons of methicillin-resistant *Staphylococcus aureus* (MRSA) healthcare-associated infection (HAI) rates by facility infection prevention and control policy category, infection site, and unit type

	All Units			Non-ICUs			ICUs		
Policy Category	HAI Rate*	95% CI†	*P*‡	HAI Rate	95% CI	*P*	HAI Rate	95% CI	*P*
All Body Site Infections									
AS + CPC + CPI	0.09	0.08-0.10		0.07	0.05-0.08		0.20	0.15-0.26	
No AS or CPC or CPI	0.22	0.16-0.29	**<0.001**	0.12	0.08-0.19	**0.01**	0.65	0.41-0.98	**<0.001**
Bloodstream Infections									
AS + CPC + CPI	0.03	0.02-0.04		0.02	0.01-0.03		0.06	0.03-0.09	
No AS or CPC or CPI	0.09	0.05-0.14	**<0.001**	0.05	0.02-0.10	**0.01**	0.26	0.12-0.48	**<0.001**

*Number of HAIs/1,000 patient-days, †95% confidence interval, ‡*P* values for X^2 pairwise comparison, §AS = active surveillance for MRSA upon facility admission, CPC = contact precautions for MRSA colonized patients, CPI = contact precautions for MRSA infected patients

facilities practicing active surveillance plus CPC plus CPI compared to 0.12 (95% CI, 0.08–0.19; $P = .01$) for those not practicing any of these strategies, and in ICUs the MRSA HAI rates were 0.20 (95% CI, 0.15–0.26) and 0.65 (95% CI, 0.41–0.98; $P < .001$) for the respective policies. Similar differences were seen when the analyses were restricted to MRSA bloodstream HAIs. Accounting for monthly COVID-19 admissions to facilities over the analysis period using a negative binomial regression model did not change the relationships between facility policy and MRSA HAI rates in the ICUs or non-ICUs. There was no statistically significant difference in monthly facility urinary catheter-associated infection rates, a nonequivalent dependent variable, in the categories during the analysis period in either ICUs or non-ICUs. **Conclusions:** In Veterans Affairs medical centers, there were fewer MRSA HAIs when facilities practiced active surveillance and contact precautions for colonized or infected patients during the COVID-19 pandemic. The effect was greater in ICUs than non-ICUs.

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S2):s117–s118
doi:10.1017/ash.2023.398

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Outbreaks

Multifacility outbreak of *Candida auris* during the COVID-19 pandemic—Maricopa County, Arizona, April 2022–December 2022

Siru Prasai; JulieAnna Rivas; Bianca Munoz; Serena Bailey; Karen Zabel; Kaitlyn Chorbi; Rachana Bhattarai; Monica Hernandez-Cubias and Ariella Dale

Background: *Candida auris*, an emerging and potentially multidrug-resistant fungus, was first identified in Maricopa County, Arizona, in 2020. On April 21, 2022, an acute-care hospital reported *C. auris* in a bronchoalveolar lavage (BAL) specimen, followed by a second case reported on April 26 identified via retrospective laboratory review and species identification in yeast isolated from a clinical specimen. The Maricopa County Department of Public Health (MCDPH) investigated, and we describe the largest ongoing *C. auris* outbreak containment response in Maricopa County. **Methods:** The MCDPH conducted clinical case and contact investigations in accordance with CDC novel organism containment strategy guidelines. In Maricopa County healthcare facilities (HCFs) with suspected transmission, virtual Infection Control Assessment Responses (ICARs) were administered to identify initial infection prevention and control (IPC) gaps; subsequent regular virtual visits were also provided. HCFs with confirmed transmission completed point-prevalence surveys (PPSs) every 2 weeks until transmission halted as evidenced by 2 sequential negative PPSs. Outreach education to affected HCFs was provided to increase awareness about the public health significance of *C. auris* and the importance of implementation and sustained adherence to standardized IPC protocols. **Results:** In total, 97 HCFs received IPC outreach education, of which 22 HCFs (23%) had suspected transmission and received a virtual ICAR. Contact investigation identified 1,990 contacts, of whom 1,028 (52%) were discharged to the community, 863 (43%) were admitted to other HCFs, and 99 (5%) died. Of the 863 transferred contacts, 10 (1.2%) declined colonization screening, 853 (98.8%) were screened, and 46 (5%) tested positive for *C. auris*. Through sequential PPSs, 101 (5%) of 1,914 screened patients tested positive for *C. auris*. By December 31, 16 clinical and 147 colonized cases were epidemiologically linked to the outbreak. Their median age was 60 years (IQR, 20), and 3 pediatric cases (median age, 17 years) were identified with no pediatric unit admissions. Also, 7colonized cases (5%) developed noninvasive infection and 3 (2%) developed candidemia. **Conclusions:** The MCDPH's established partnerships with HCFs were key to this ongoing *C. auris* outbreak response spanning 22 facilities over 8 months. Challenges included delays in specimen collection and laboratory processing, operational burden of repeated PPS, and ensuring appropriate precautions for readmitted close contacts at subsequent HCFs. The MCDPH assisted facilities in balancing public health surveillance with facility capacity to execute guidance, including repeated PPS. Consistent adherence to stringent IPC practices, interfacility communication, and proactive *C. auris* education of healthcare workers are paramount to halting transmission.

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S2):s118
doi:10.1017/ash.2023.399

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Outbreaks

Investigation of the first cluster of *Candida auris* cases among pediatric patients in the United States——Nevada, May 2022

Sophie Jones; Kaitlin Forsberg; Christopher Preste; Joe Sexton; Paige Gable; Janet Glowicz; Heather Jones; Maroya Walters; Meghan Lyman; Chidinma Njoku; Kimisha Causey; Jeanne Ruff; Dallas Smith; Karen Wu; Elizabeth Misas; Teri Lynn; Chantal Lewis; Brian Min; Fathia Osman and Erin Archer

Background: *Candida auris* is a frequently drug-resistant yeast that can cause invasive disease and is easily transmitted in healthcare settings.

Pediatric cases are rare in the United States, with <10 reported before 2022. In August 2021, the first *C. auris* case in Las Vegas was identified in an adult. By May 2022, 117 cases were identified across 16 healthcare facilities, including 3 pediatric cases at an acute-care hospital (ACH) with adult cases, representing the first pediatric cluster in the United States. The CDC and Nevada Division of Public and Behavioral Health (NVDPBH) sought to describe these cases and risk factors for *C. auris* acquisition. **Methods:** We defined a case as a patient's first positive *C. auris* specimen. We reviewed medical records and infection prevention and control (IPC) practices. Environmental sampling was conducted on high-touch surfaces throughout affected adult and pediatric units. Isolate relatedness was assessed using whole-genome sequencing (WGS). **Results:** All 3 pediatric patients were born at the facility and had congenital heart defects. All were aged <6 months when they developed C. auris bloodstream infections; 2 developed C. auris endocarditis. One patient died. Patients overlapped in the pediatric cardiac intensive care unit; 2 did not leave between birth and *C. auris* infection. Mobile medical equipment was shared between adult and pediatric patients; lapses in cleaning and disinfection of shared mobile medical equipment and environmental surfaces were observed, presenting opportunities for transmission. Overall, 32 environmental samples were collected, and *C. auris* was isolated from 2 specimens from an adult unit without current cases. One was a composite sample from an adult patient's bed handles, railings, tray table and call buttons, and the second was from an adult lift-assistance device. WGS of specimens from adult and pediatric cases and environmental isolates were in the same genetic cluster, with 2–10 single-nucleotide polymorphisms (SNPs) different, supporting within-hospital transmission. The pediatric cases varied by 0–3 SNPs; at least 2 were highly related. **Conclusions:** *C. auris* was likely introduced to the pediatric population from adults via inadequately cleaned and disinfected mobile medical equipment. We made recommendations to ensure adequate cleaning and disinfection and implement monitoring and audits. No pediatric cases have been identified since. This investigation demonstrates transmission can occur between unrelated units and populations and that robust infection prevention and control practices throughout the facility are critical for reducing *C. auris* environmental burden and limiting transmission, including to previously unaffected vulnerable populations, like children.

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S2):s118–s119

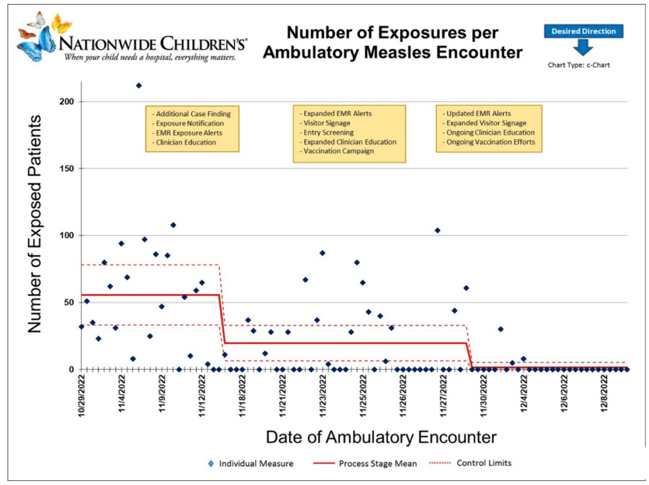
doi:10.1017/ash.2023.400

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Pediatrics

Preventing measles transmission in ambulatory pediatric settings during peak respiratory viral season

Katia Halabi; Tammie Hull; Randi Pfeffer; Payal Patel; Sarah King; Randal De Souza and Matthew Washam

Background: Measles is a highly transmissible respiratory virus that presents with nonspecific prodromal symptoms followed by a characteristic cephalocaudal rash. In the prodromal phase, children with measles can be challenging to differentiate from children with other circulating respiratory viral infections. A measles outbreak in Central Ohio starting in October 2022 coincided with a national surge in children with viral respiratory infections which presented unique challenges in preventing healthcare transmission in the pediatric ambulatory setting. **Methods:** Following initial identification of presumed community transmission of measles in Central Ohio in November 2022, a multidisciplinary measles response team was convened at Nationwide Children's Hospital (NCH) to prevent secondary healthcare transmission via rapid-cycle quality improvement. Prevention efforts were focused broadly across NCH ambulatory locations in Central Ohio, including the main campus and offsite emergency departments, regional urgent cares, and primary care network. Preliminary risk factors were identified via chart review of initial cases, which included vaccine status, ZIP code of residence, and known daycare or household exposure. These risk factors were used to guide an intervention bundle comprising enhanced screening at registration and triage, creation of electronic medical record alerts to identify at-risk patients, increased clinician education, and expanded community messaging. As the outbreak evolved, risk factors were updated, and interventions were adjusted to adapt response. Outcome metrics included total patient exposures as well as the relative exposure score. The exposure score was an internal metric derived using the vaccine status of exposed patients and ventilation at the site of exposure to assess likelihood of secondary cases occurring from an exposure. **Results:** In total, 65 patients with measles were seen at NCH facilities between October 29 and December 8, 2022. The outbreak response was divided into 4 periods: (1) cases identified retrospectively prior to first diagnosis (October 29–November 7, 2022), (2) initial case discovery (November 8–14, 2022), (3) implementation of prevention bundle (November 15–28, 2022), and (4) updates to the response (November 29–December 8, 2022). Ambulatory healthcare exposures and incidence of secondary cases decreased over the outbreak periods in response to implementation of the prevention bundle (Fig. and Table). **Conclusions:** An outbreak of measles occurring simultaneously with peak respiratory viral season presented challenges in early identification of suspected cases and mitigation of healthcare exposure. Transmission was effectively prevented following rapid deployment of a prevention bundle adjusted in real-time through rapid-cycle quality improvement. Ongoing longitudinal vaccination efforts are needed to sufficiently mitigate transmission risk in communities with under-vaccinated populations.



	Outbreak Time Period			
	Retrospective (10/29-11/7/22)	Case Discovery (11/8-11/14/22)	Bundle Rollout (11/15-11/28/22)	Updated Bundle (11/29-12/8/22)
Measles Cases	10	10	30	15
Total Ambulatory Encounters	12	12	44	28
Patient Exposures per Encounter (median, IQR)	56.5 (31.3-90.5)	50.5 (5.5-90.0)	0.0 (0.0-35.5)	0.0 (0.0-0.0)
Exposure Score per Encounter (median, IQR)	5.8 (3.4-25.5)	8.2 (1.5-22.2)	0.0 (0.0-6.5)	0.0 (0.0-0.0)

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2023;3(Suppl. S2):s119

doi:10.1017/ash.2023.401