

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

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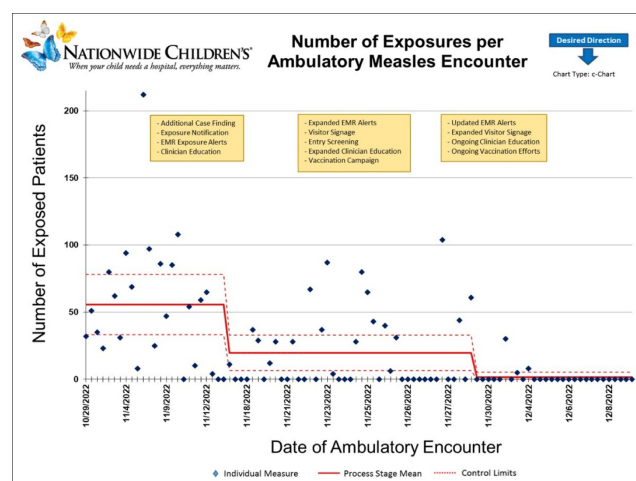
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Preventing measles transmission in ambulatory pediatric settings during peak respiratory viral season

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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



	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)

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.

Disclosures: None

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