Conclusion. Patients with S. aureus AHOA with a delay in source control, slow decline in CRP, prolonged fever or ICU admission are at higher risk of OC. While nonspecific, these findings suggest that such patients may warrant especially cautious clinical follow-up to identify sequelea early. Large multicenter studies are needed to better predict OC in this setting.

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920. A Sharp Fall in Antibiotic Use in Infants Is Correlated With a Population-Wide Reduction in Asthma Incidence for Children Under 5
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Session: 112. Bacterial Infections and Antimicrobial Stewardship
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Background. Antibiotic use in infants <1 is associated with increased relative risk (~1.5) for childhood asthma in cohort studies. This may be mediated by removal from the infant microbiome of organisms shown to protect against asthma, a hypothesis supported by experiment. We launched this study to see whether reductions in antibiotic use at population level are associated with benefit by way of asthma reduction.

Methods. We obtained antibiotic prescribing data from BC PharmaNet, a population-based database that captures all outpatient prescribing for British Columbia, Canada (n = 4.7 million). We focused on prescriptions in children <1 and calculated prescription rate per 1,000 population/year. We obtained asthma incidence data from the BC Ministry of Health Chronic Disease Registry. Asthma case identification uses a standard case definition making use of community and hospital diagnostic codes as well as asthma drug data from BC’s universal physian billing, hospital and drug databases. We focused on age-stratified asthma incidence for children aged 1-4. The correlation between antibiotic prescription rate in children <1 and asthma incidence in the following year was estimated using the Spearman test.

Results. Antibiotic prescribing for all age groups fell 9.5% between 1999 and 2013. The rate for infants <1 dropped 58% from 1,014 to 427 prescriptions per 1,000 population/year. Between 2000 and 2014, asthma incidence (ages 1–4) fell 26% from 27.3 (95% CI: 26.5–28.0) to 20.2 (95% CI: 19.5–20.8) per 1,000 population/year. These trends were strongly correlated: Spearman’s rho = 0.81 (P = 0.0002). The magnitude of fall in asthma incidence is slightly greater than that predicted based on calculated population attributable risk for antibiotic exposure.

Conclusion. The population health benefit from antibiotic stewardship in infants may not be confined to slowing the emergence of resistance and could include a reduced risk of asthma. As this is a population-based ecological study, a reduction in other risk factors may also have contributed to the fall in asthma incidence. This promising trend should be further studied at individual level within a large cohort study.

Disclosures. All authors: No reported disclosures.
Conclusion. Successful ASP require interdisciplinary collaboration and communication. Barriers related to communicating and exchanging information may limit nurse engagement. Assessments already used at hospitals could potentially guide methods of integrating nurses into stewardship with AHRQ data offering another lens to assess factors influencing behaviors to steward. A thorough understanding of nurses perceived work climate may inform engagement strategies.

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923. Rapid Emergence of Candida auris in the Chicago Region
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Session: 113. Healthcare Epidemiology: Outbreaks!
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Background. In 2016, Candida auris was first reported in the United States, with 2 Illinois patients among the first cases. In response, the state and 3 Chicago-area health departments (HDs) investigated clinical cases and performed point prevalence surveys (PPSs) to identify colonized cases.

Methods. Clinical cases had positive C. auris cultures obtained for clinical care; colonized cases had positive surveillance cultures during PPSs. In August 2016–January 2018, PPSs were performed in Chicago-area acute care hospital (ACH) intensive care units, long-term acute-care hospitals (LTACHs), and high-acuity floors of skilled nursing facilities (SNFs) and SNFs caring for ventilated patients (vSNFs). Facility and HD staff obtained composite axilla/groin swabs from asymptomatic patients to detect colonization. Facilities with an epidemiologic link to a clinical case or a shared patient population with a facility housing a clinical case were prioritized for PPSs.

Results. During May 2016–January 2018, Chicago-area facilities reported 24 clinical cases, including 10 bloodstream infections. HDs performed 33 PPSs at 20 facilities (5 ACHs, 5 LTACHs, 3 SNFs, and 7 vSNFs) during August 2016–January 2018. Of 1,364 patients screened, 92 (6.7%) were colonized with C. auris; 10 (50%) facilities had ≥1 colonized patient. A significantly higher proportion screened positive from September 2017 to January 2018 (84/822, 10.2%) than in August 2016–August 2017 (8542, 1.5%; test P < 0.01). Prevalence of C. auris colonization was highest in vSNFs (median: 7.7%; range: 0–43.3%), compared with ACHs (0%; 0–6.3%), LTACHs (0%; 0–14.3%), and SNFs (0%; 0–1.5%). PPSs in vSNFs identified 91% (84/92) of colonized cases. Among 5 vSNFs with repeat PPSs, 4 had higher prevalence on repeat screening (median: 26.1%; range: 0–43.3%) than at baseline (1.2%; 0–17.0%).

Conclusion. C. auris has rapidly emerged in the Chicago area. Increasing prevalence of C. auris colonization during repeat PPSs indicates transmission and amplification within vSNFs. To prevent spread, state and local HDs provided infection control recommendations, disseminated health alerts, and recommended placing vSNF patients from high-acuity floors on transmission-based precautions.

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924. Incidence of Symptomatic and Asymptomatic Influenza Among Healthcare Workers: A Multicenter Prospective Cohort Study
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Background. Influenza is an important cause of viral nosocomial infections; however, the incidence of asymptomatic influenza among healthcare workers (HCWs) is poorly known. The objective was to estimate the cumulative incidence of asymptomatic and symptomatic influenza among HCWs.

Methods. The AFP (Asymptomatic Influenza Project, NCT02868658) multicenter prospective cohort study was conducted in 5 French university hospitals in Lyon (2 sites), Grenoble, Saint-Etienne, and Dijon. Each voluntary HCW was followed-up during the entire 2016–2017 influenza season with 3 visits for influenza diagnostic by PCR from nasal swabs and serology. The outcome was laboratory confirmed influenza (LCI) defined by an influenza detection by PCR, and/or influenza A seroconversion/significant increase in the anti-A serum antibodies titer against A/Hong Kong/4801/2014, with the absence of seroconversion/significant increase in the level of the anti-B/Brussels/60/2008 antibodies; influenza A was indeed the only strain circulating this winter in the Lyon area. Asymptomatic cases presented no general or respiratory signs/symptoms. Paucisymptomatic LCI cases had symptoms/signs but not confirming to clinical criteria, symptomatic LCI cases had temperature ≥37.8°C and cough or sore throat. Cumulative incidence was expressed per 100 HCWs.

Results. Overall 278 HCWs were analyzed, 84.2% were female, the mean age was 38 years old and influenza vaccination coverage in 2016–2017 was 45.3%. Globally, 52 HCWs had evidence of LCI. Among laboratory confirmed influenza cases, 67.7% (95% CI: 55.8%–79.7%; n = 42) were asymptomatic, 21.0% (95% CI: 10.5%–31.4%, n = 13) were paucisymptomatic, and 11.3% (95% CI: 3.2%–19.4%, n = 7) were symptomatic. Among HCWs, global cumulative influenza incidence was 22.3% (95% CI: 17.7%–27.5%). Cumulative incidence of asymptomatic influenza was 15.1% (95% CI: 10.9%–19.3%), it was 4.7% (95% CI: 2.2%–7.2%) for paucisymptomatic influenza, and 2.5% (95% CI: 0.1%–4.4%) for symptomatic influenza.

Conclusion. Asymptomatic influenza is frequent among HCWs, representing two-thirds of the influenza burden in this population. This highlights the importance of infection control measures among HCWs not presenting influenza symptoms.

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925. Healthcare-Associated Legianomiasis Disease, California, 2015–2017
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Background. Legionnaires’ disease (LD) causes significant morbidity and mortality to hospital patients and residents of skilled nursing facilities (SNF). In California, LD departments via local health departments reported 33 cases, 50 cases (68%) had exposures in a single SNF. To prevent HA-LD, California hospitals and long-term acute-care hospitals (LTACHs) and SNFs in California; the majority occurred in SNF. To prevent HA-LD, California hospitals and LTACHs (0%; 0%–14.3%), and SNFs (0%, 0%–1.5%). PPSs in vSNFs identified 91% (84/92) of colonized cases. Among 5 vSNFs with repeat PPSs, 4 had higher prevalence on repeat screening (median: 26.1%; range: 0%–43.3%) than at baseline (1.2%; 0%–17.0%).

Conclusion. C. auris has rapidly emerged in the Chicago area. Increasing prevalence of C. auris colonization during repeat PPSs indicates transmission and amplification within vSNFs. To prevent spread, state and local HDs provided infection control recommendations, disseminated health alerts, and recommended placing vSNF patients from high-acuity floors on transmission-based precautions.

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