Just Keep Screening: Candida auris Admission and Weekly Surveillance Pilot on High-Risk Units

Rachel Weber[1], Jacqueline Maniscalco[1], Grace Barajas[2], Michael Malczynski[2], Chao Qi[2], Teresa Zembower[3] and Maureen Bolon[3]
[1]Northwestern Memorial Hospital; [2]Northwestern Medicine and [3]Northwestern University

Background: Our Candida auris surveillance protocol dictates that all patients who have been admitted to a skilled nursing facility (SNF), long-term acute care hospital (LTACH), and/or acute inpatient rehab (AIR) in the prior six months be screened on hospital admission. When hospital-onset (HO) cases are identified, point prevalence surveys (PPS) are conducted. Despite this, we identified two units with high prevalence of C. auris and an increasing number of HO cases. To investigate, we initiated an expanded C. auris screening pilot. **Methods:** Infection prevention (IP) verified that two units, the medical intensive care unit (MICU) and the pulmonary medicine unit (PMU) had the highest C. auris prevalence and number of HO cases. We formed a multidisciplinary process improvement team (MPIT) to develop recommendations. A pilot was launched to implement universal admission and transfer screening by PCR and weekly screening by culture on MICU and PMU. Screening consisted of two swabs: bilateral nares and bilateral axilla/groin. For patients with a tracheostomy or endotracheal tube, an endotracheal aspirate was collected. Pilot data were analyzed and shared with executive leadership. **Results:** In the 15 months prior to the pilot, 24/47 (51%) of the hospital-wide HO C. auris cases occurred on the pilot units resulting in 17/40 (43%) of all PPS performed. The pilot, conducted between 5/7/24 – 8/24/24, screened 868 unique patients and detected 9 present-on-admission (POA) C. auris cases and 8 HO C. auris cases (Figure 1). This surveillance avoided a minimum of 7 PPS and identified a cluster of C. auris on MICU. Notably, 9/9 (100%) of the POA cases were exposed to a SNF, LTACH, and/or AIR within 6 months prior to admission. Of the HO cases, 7/8 (88%) were epidemiologically linked with another C. auris patient, and 4/8 (50%) were co-colonized with at least one other multidrug-resistant organism at the time of collection. The pilot was established as routine practice on the two units. **Conclusion:** Our screening pilot identified POA and HO C. auris cases and demonstrated that HO cases decreased over time. This suggests that active surveillance allows for rapid identification and isolation of patients, preventing transmissions and outbreaks. In our experience, IP education and hospital-wide admission screening did not stop cases on units with a high prevalence of patients with C. auris. The pilot confirmed that our current hospital-wide admission screening protocol identifies cases on admission but alone will not prevent nor capture HO cases.
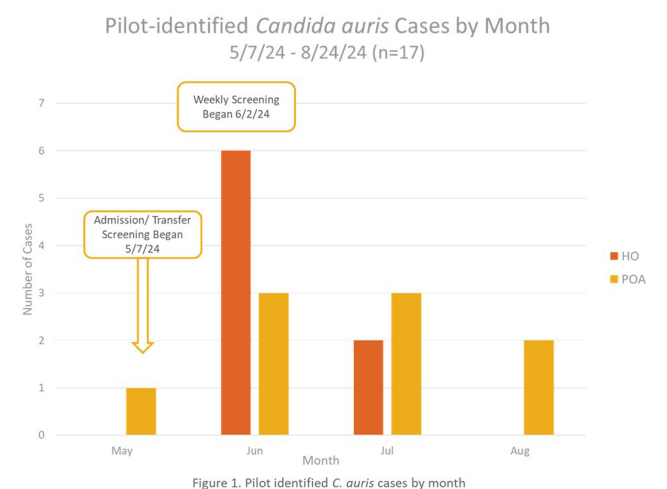
The Impact of Infectious Disease Consult on Hospitalist Prescribing of Broad-Spectrum Antibiotics

Lucy Witt[1], Radhika Prakash Asrani[1], Hyun Bin Kim[1], Ashley Jones[2], Kristen Paciullo[2], Hasan Shabbir[2], Sujit Suchindran[1], Jesse T. Jacob[1], Chad Robichaux[2] and Scott Fridkin[1]
[1]Emory University School of Medicine and [2]Emory Healthcare

Introduction: Within our healthcare system, hospitalists receive feedback on antibiotic prescribing via an observed-to-expected ratio (OER) calculated by days of therapy (DOT) for CDC defined broad-spectrum, hospital-onset (BSHO) antibiotics and adjusted for patient characteristics and billing. In this sub-analysis, we quantify the impact of infectious disease (ID) consultations on OER. **Methods:** For each two-month period in five hospitals, encounters were assigned to each hospitalist if they billed for ≥1 day of care. The encounter was considered to involve an ID consult if an ID provider billed during the encounter. Percent of encounters with ID consultation (density) was calculated and stratum defined by gross ratios (e.g., 1 in 3 or 1 in 4 patients). We assessed whether consult density varied over-time, by facility, or by DOT. We assessed the effect of consult density on antibiotic DOT using established linear mixed effects model with random intercepts for both provider and facility (nested) and adjusted for patient characteristics and billing. Distribution of OERs were compared among strata to evaluate how ID consult changes OERs. **Results:** Between January and June 2023, 154 unique providers collectively received 458 bi-monthly OERs reflecting their care for 53,815 unique patients. Overall, 21% of hospital medicine patients were evaluated by an ID

Table 1. Broad-spectrum, hospital-onset days of therapy (DOT) observed and estimated, by ID consult density

Infectious Diseases Consult Density		No Obs	% of Obs	Observed DOT (Mean)	Predictive Models	
Density	Range of %				Estimated DOT attributed to ID	P-Value
1:10 or 1:7	1% 14%	44	10.3%	9.05	Referent	NA
1:5	15% 20%	119	37.8%	10.73	0.8	0.5
1:4	21% 25%	153	35.8%	12.83	2.7	0.02
1:3	26% 33%	101	23.6%	14.28	3.4	<0.01
1:2	34% 50%	11	2.6%	11.45	0.7	0.7

Pilot-identified *Candida auris* Cases by Month
5/7/24 - 8/24/24 (n=17)

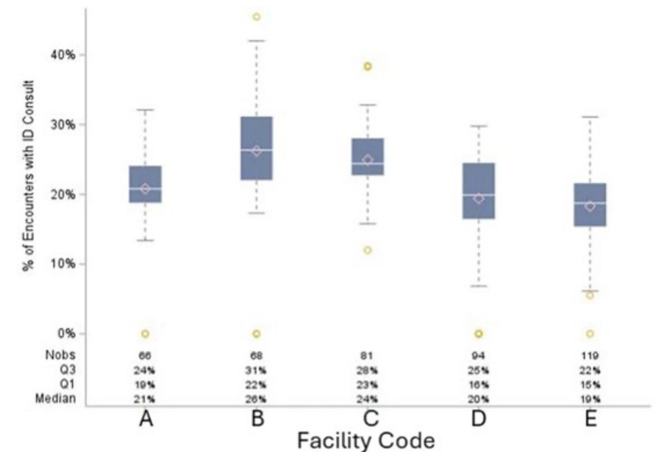Figure 1. Pilot identified *C. auris* cases by month

Figure 1. Box plots of proportion of patient encounters having infectious disease consultation by hospital