

narrowing or discontinuation of 1 or more antimicrobial therapies <3 days after sepsis onset. **Results:** Overall, 277 patients were included (DEG, 90 patients, 32%; NDG, 187 patients, 68%). The groups were similar in terms of sex, comorbidities, length of stay, and severity of illness: septic shock (47% DEG vs 49% NDG; $P = .693$) and ICU stay (27% DEG vs 32% NDG; $P = .406$). DEG patients were slightly older than NDG patients: (DEG age, 63+16 years vs NDE age, 58+16 years; $P = .028$). There was no difference in hospital mortality (8% DEG vs 12% NDE; $P = .257$). Nearly half of the patients in both groups (46% DEG and 47% NDG) had no causative microorganisms identified using conventional microbiology culture. The common sources of primary infection were respiratory, urinary tract, and gastrointestinal infections, and these were not different between groups. Also, 69% of DEG patients and 79% of NDG patients received antibiotics for >7 days ($P = .002$). Empiric intravenous vancomycin was initiated in 83% in DEG patients and 74% in NDG patients at sepsis diagnosis. Although organisms covered by intravenous vancomycin were isolated from only 17% of patients in DEG and 23% in NDG, vancomycin was continued for >5 days in 34% of DEG patients and 50.3% of NDG patients ($P < .001$). 60% of patients in DEG and 61% in NDG were seen by infectious diseases specialists (ID). Patients with infectious diseases consultations had significantly more comorbidities, were more frequently in the ICU, had higher MDRO isolation and longer hospital stays, but they were still de-escalated without a difference in mortality. **Conclusions:** Microbiology data did not contribute to early de-escalation of antibiotics in this study. This finding may be related to the high percentage of negative culture and unavailability of rapid molecular diagnostic tests. Shorter duration of antibiotics (including vancomycin) was not associated with worse outcome in these severely ill patients.

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Poster Presentation

Decision Support Tool for Screening of Tuberculosis Exposed Individuals Seeking Care at a Public Academic Health System

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Table 1.

Location	Mean Exposure			F Statistic	P
	Borderline (n = 57)	Negative (n = 747)	Positive (n = 313)		
<u>Person-nights exposure to smear-positive TB</u>					
Shelter 1	25.14	22.95	33.57	2.835	.059
Shelter 2	0.00	0.00	0.00	0	
Shelter 3	23.21	11.51	29.89	13.279	.000
Shelter 4	0.00	0.01	0.00	0.446	.641
<u>Person-nights exposure to smear-negative TB</u>					
Shelter 1	11.70	11.52	13.99	0.675	.510
Shelter 2	0.00	0.02	0.05	2.595	.075
Shelter 3	6.21	4.89	9.66	4.609	.010
Shelter 4	0.00	0.04	0.00	0.778	.460

Background: *Mycobacterium tuberculosis* (TB) is one of the leading causes of morbidity and mortality worldwide. At our health system, 50–100 patients are diagnosed with tuberculosis every year. One risk factor for TB is residence within a homeless shelter. In response to an increased number of cases in local homeless shelters, the health department sought assistance with contact tracing of individuals potentially exposed to tuberculosis. We report the results of contact tracing performed at our health system.

Methods: The setting is a 770-bed, safety-net, academic hospital with community clinics and a correctional health center. Name, date of birth, and social security number of contacts potentially exposed during February 2009 to July 2013 were programmed into the electronic medical records to create a decision support tool upon entering the health system. The best practice alert (BPA) informed physicians of the exposure and offered a link to a screening test, T-spot.TB, and a link to an information sheet. This intervention was implemented from July 2013 to July 2015. After excluding patients with active TB, data on the magnitude of exposure in each homeless shelter and screening test results were analyzed with ANOVA using SPSS v 26 software. **Results:** Of the 8,649 identified exposed contacts, 2,118 entered our health system. Of those for whom the BPA was triggered, 1,117 had a T-spot.TB done, with 313 positive results and 57 borderline results. Table 1 shows that shelter 3 was correlated with a positive T-spot.TB. **Conclusions:** The BPA, which prompted physicians to evaluate an individual for TB, was effective at capturing high-risk, exposed individuals. Clinical decision support tools enabled our safety-net health system to respond effectively to a local public health need.

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Effect of delays in concordant antibiotic treatment on mortality in patients with hospital-acquired *Acinetobacter* spp. bacteremia in Thailand: a 13-year retrospective cohort

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Background: A quantitative understanding of the impact of delays to concordant antibiotic treatment on patient mortality is important for designing hospital antibiotic policies. *Acinetobacter* spp are among the most prevalent pathogens causing multidrug-resistant hospital-acquired infections in developing countries. We aimed to determine the causal effect of delays in concordant antibiotic treatment on 30-day survival of patients with hospital-acquired *Acinetobacter* spp bacteremia in a resource-limited setting. **Methods:** We included patients with *Acinetobacter* spp-related hospital-acquired bacteremia (HAB) in a hospital in Thailand over a 13-year period. We classified patients into 4 groups: those with no delays to concordant antibiotic treatment; those with a 1-day delay; those with 2-day delays; and those with >2 days of delay. We adopted an analytical approach that aimed to emulate a randomized controlled trial and compared the expected potential outcomes of patients between the exposure groups using a marginal structural model with inverse-probability weightings to adjust for confounders and immortal time bias. **Results:** Between January 2003 and December 2015, 1,203 patients had HAB with *Acinetobacter* spp., of which 682 patients (56.7%) had ≥ 1 days of delay in concordant antibiotic treatment. These delays were associated with an absolute increase in 30-day mortality of 6.6% (95% CI 0.2%–13.0%), from 33.8% to 40.4%. Among the 1,203 patients, 521 had no delays to concordant antibiotic treatment (i.e. concordant therapy on the day of blood collection), 224 patients had a 1-day delay, 119 had a 2-day delay, and 339 had a delay of ≥ 3 days. The crude 30-day mortality was substantially lower in patients with ≥ 3 days of delay in concordant treatment compared to those with 1 to 2-days of delays. After adjusting for measured confounders and immortal time bias, the expected probability of dying in the hospital within 30-days of blood collection if patient had no delays in concordant therapy was 39.7% (95% CI: 32.3–47.2%), for a 1-day delay it was 42.7% (95% CI: 29.8–55.7%), for a 2-day delay it was 51.0% (95% CI: 38.9–63.2%), and for a ≥ 3 days was 40.9% (36.0–45.7%).

Conclusions: Delays to concordant antibiotic therapy are linked to increased mortality among patients with HAB due to *Acinetobacter* spp. Accounting for confounders and immortal time bias is necessary when attempting to estimate causal effects of delayed concordant treatment and, in this case, it helped resolve paradoxical results in crude data.

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Determinants of Protection Against Measles Infection in a Vaccinated Healthcare Worker

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Background: In 2019, a measles community outbreak resulted in a secondary case in a health care worker (HCW) working in a pediatric hospital in Montréal, Canada. Following the event, HCWs were screened to identify individuals susceptible to measles infection based on serology results. **Objective:** Our aim was to assess measles seroprotection rates and to evaluate vaccine responses of susceptible HCWs using commercial enzyme immunoassay (EIA) or enzyme linked immunosorbent assay (ELISA). **Methods:** Emergency department (ED) employees, including doctors, were screened for measles susceptibility as part of a postoutbreak measure by the hospital occupational health service. Demographic information was collected. Measles history and vaccination information were collected using a personal vaccination booklet, employee vaccination profile, or the Québec vaccination registry. According to the Quebec Immunization Protocol (PIQ), individuals born before 1970, or who have received 2 doses of a measles-containing vaccine are considered protected. Individuals with undetectable or equivocal antibody levels were considered at risk of measles infection. These individuals were offered vaccination and were tested for vaccine response 4 weeks after vaccination. **Results:** Anti-IgG measles antibody results, demographic information, and vaccination information were obtained for 257 employees. The results are currently available for 233 HCWs: 224 HCWs (96%) were seropositive, 7 (3%) were seronegative, and 2 were equivocal. Among seronegative individuals, 6 (85.7%) were born after 1980 and 3 (42.9%) had received 2 doses of a measles-containing vaccine. Of those with an equivocal result, 1 (50%) had received 2 doses and 1 (50%), born after 1970, did not confirm vaccination status. Finally, 9 (4%) of seropositive individuals were not vaccinated; of whom 8 (88.9%) were born before 1970. **Conclusions:** Our preliminary results suggest that the 95% immunity threshold that is usually required to prevent secondary transmission of measles has been reached in our ED HCW cohort. Even years after the second MMR dose, HCWs remain well protected. Relying on documented vaccination status is thus acceptable.

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Determining Antibiotic Use in Long-Term Care Facilities Across Tennessee

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Background: Antibiotic stewardship is an area of great concern in long-term care facilities nationwide. The CDC promotes 7 core