rates were noted for all Gram-negative organisms evaluated, with particular clinical and statistical significance noted for *K. pneumoniae* with imipenem (4.3% average resistance increase per year (PARPY), p-value < 0.0001), ciprofloxacin (4.5 PARPY, < 0.0001), and piperacillin-tazobactam (3.4 PARPY, < 0.0001), as well as *A. baumannii* with imipenem (2.9 PARPY, p-value < 0.0001), cefepime (1.7 PARPY, < 0.0001), and ciprofloxacin (2.5 PARPY, 0.0002). In contrast, resistance rates decreased for *S. aureus* with oxacillin (-2.7 PARPY, 0.0015). A mortality rate of 20% among our 99-patient cohort was detected. Of the 37% who received optimal therapy, the median time to optimal therapy was 90 hours.
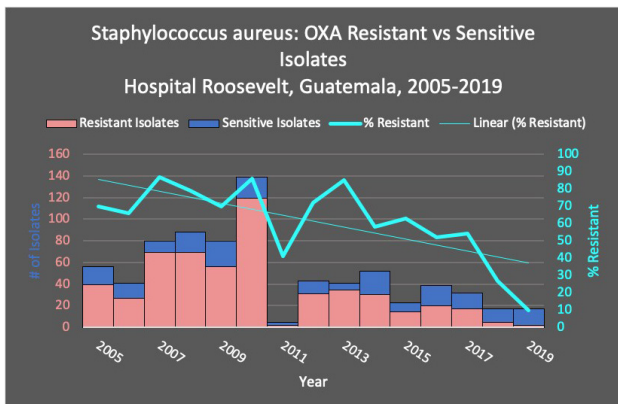
Acinetobacter baumannii resistance to imipenem, 2005-2019
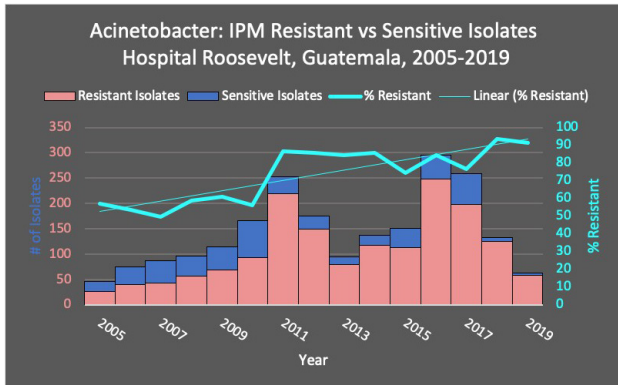
Klebsiella pneumoniae resistance to imipenem, 2005-2019
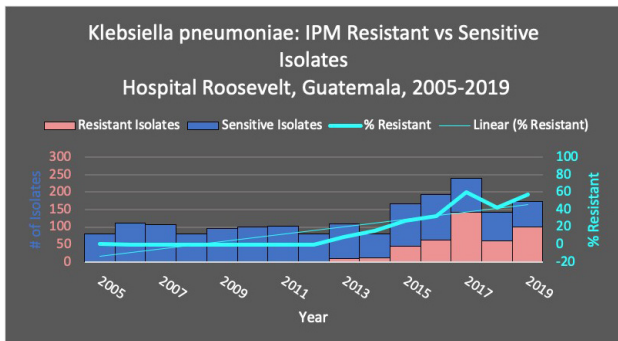
Staphylococcus aureus resistance to oxacillin, 2005-2019

Conclusion: Significant rises in AMR among pediatric patients in a large tertiary hospital in Guatemala City have occurred over 15 years. This likely contributed to delays in optimal antimicrobial therapy, increased exposure to broad spectrum antibiotics, and potentially increased mortality. Improved antimicrobial stewardship, infection prevention, and rapid diagnostic testing are needed in order to combat this growing problem.

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762. Climate Change and the Seroprevalence of *Borrelia burgdorferi* over 25 Years in Rhode Island

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Session: P-31. Global Health

Background: The *Ixodes scapularis* tick (deer tick or black-legged tick) is the primary vector of *Borrelia burgdorferi*, the causative agent of Lyme disease. Climatic conditions, specifically temperature, relative humidity, and rainfall, have been shown to affect *I. scapularis* tick densities. We hypothesized that temperature and moisture correlate with the frequency of human Lyme disease.

Methods: We have carried out a biannual *B. burgdorferi* serosurvey on Block island, Rhode Island over the past 25 years using a standard *B. burgdorferi* two-tier ELISA and Western blot assay. Residents of the Island were invited to participate and we only used first visit results. We analyzed *B. burgdorferi* seroprevalence and weather pattern trends (temperature, rainfall, relative humidity) among a cohort of 2,439 Block Island residents over the past 25 years.

Results: During the months in which ticks are active, we found that both temperature and relative humidity increased on Block Island over the past 25 years (p=0.04 and p=0.03, respectively). We also found that the seroprevalence of *B. burgdorferi* on the Island increased over the course of the study (p< 0.01), and that increased temperature and moisture in a given season is associated with increased *B. burgdorferi* seroprevalence in the following season. For example, we found that every inch increase in total rainfall in a given season was associated with a 2% (95% CI 1.01-1.03) increase in the odds of *B. burgdorferi* seropositivity during the following season. Similarly, we found that every degree Fahrenheit increase in temperature in the spring was associated with a 2% (95% CI 1.02-1.03) increase in the odds of seropositivity in the fall.

Conclusion: We conclude that increasing temperature and moisture are associated with increased frequency of *B. burgdorferi* infection in humans.

Disclosures: **All Authors**: No reported disclosures

763. Correlates of Antiretroviral Therapy Initiation Among Newly Diagnosed Older People with HIV in Ukraine

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Session: P-31. Global Health

Background: Ukraine has a high burden of HIV, with only 52% of people living with HIV receiving Antiretroviral Therapy (ART) despite test and treat policies and free medications. An underrecognized but significantly increasing proportion of older people with HIV (OPWH) contribute 15% of new HIV diagnoses and demonstrate increased mortality compared to the age-matched general population. To assess the impact of age on HIV treatment outcomes, we examined correlates of ART initiation among newly diagnosed HIV patients in Ukraine.

Methods: A retrospective chart review was conducted of 400 patients newly diagnosed with HIV between July 1, 2017- Dec 1, 2018 in Odessa, Ukraine. OPWH were defined as those ≥50 years old at the time of diagnosis, while ART initiation was defined as prescription and dispensing of medication. Outcomes were censored 6 months from diagnosis. Demographic, clinical characteristics, and ART outcomes were examined and multivariable logistic regression models were used to estimate correlates of ART initiation with adjusted odds ratios at 95% confidence intervals.

Results: Of the 400 included patients, 198 (49.5%) were < 50 years old and 202 (50.5%) were ≥ 50 years old at the time of diagnosis. Patients ≥50 years old were more likely to have a lower CD4 count (median 148 (IQR 60-316) vs 295 (IQR 111-478), p=0.001). Correlates of ART initiation included age less than 50 and history of opportunistic infection within 12 months of diagnosis. After controlling for opportunistic infection history, OPWH were 51% less likely to receive ART than those < 50 years old at the time of diagnosis (AOR 0.496, CI 0.301-0.816, p=0.006).

Conclusion: OPWH exhibit an ART gap associated with advanced disease at presentation compared to younger individuals newly diagnosed with HIV. This is the first clinical data examining OPWH in Ukraine. Interventions to improve linkage to care for OPWH are urgently needed in a population already at increased risk for HIV related mortality. The results of this study emphasize the need for further studies to examine patient and systemic causes of decreased ART initiation among Ukrainian OPWH.

Disclosures: **All Authors**: No reported disclosures

764. Correlates of Lost to Follow-up Among Newly Diagnosed Older People with HIV in Ukraine

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