

**Disclosures.** N. Mastboim, MeMed Diagnostics: Employee, Salary. K. Oved, MeMed Diagnostics: Board Member, Employee and Shareholder, Salary. T. Gottlieb, MeMed Diagnostics: Employee, Salary. A. Cohen, MeMed Diagnostics: Employee, Salary. R. Navon, MeMed Diagnostics: Employee, Salary. M. Paz, MeMed Diagnostics: Employee, Salary. E. Bamberger, MeMed Diagnostics: Employee, Salary. T. Friedman, MeMed Diagnostics: Employee, Salary. L. Etshtein, MeMed Diagnostics: Employee, Salary. O. Boico, MeMed Diagnostics: Employee, Salary. I. Potasman, MeMed Diagnostics: Holding stock options, Stock options. E. Eden, MeMed Diagnostics: Board Member, Employee and Shareholder, Salary. L. Shani, MeMed Diagnostics: Employee, Salary.

### 875. Sex Differences in Academic Achievement and Faculty Rank in Academic Infectious Diseases

Jennifer Manne-Goehler, MD, DSc, MSc<sup>1</sup>, Neena Kapoor, MD<sup>2</sup>, Daniel Blumenthal, MD, MBA<sup>3</sup> and Wendy Stead, MD<sup>4</sup>, <sup>1</sup>Beth Israel Deaconess Medical Center, Boston, Massachusetts, <sup>2</sup>Brigham and Women's Hospital, Boston, Massachusetts, <sup>3</sup>Massachusetts General Hospital, Boston, Massachusetts and <sup>4</sup>Infectious Diseases, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts

**Session:** 90. Featured Oral Abstract  
Thursday, October 4, 2018: 4:05 PM

**Background.** Sex differences in faculty achievement in academic medicine have been described, but little is known about these differences in infectious diseases (ID). This study assesses differences in faculty rank between female and male infectious disease faculty with academic appointments at US medical schools.

**Methods.** We analyzed a complete database of US physicians with medical school faculty appointments in 2014. This database consists of a linkage between the American Association of Medical Colleges faculty roster and a comprehensive physician database from Doximity, a professional networking website for doctors and includes physician age, sex, years since residency completion, publications, National Institutes of Health grants, and registered clinical trials for all academic physicians by specialty. We estimated sex differences in key metrics of academic achievement, including publications and faculty rank, among faculty physicians within ID. Multivariable regression models with medical school-specific fixed effects were used to assess sex differences in full professorship by specialty and the relationship between these factors and achieving the rank of full professor within ID.

**Results.** Among 2,016 academic ID physicians [Female: 742 (37%)], women accounted for 48.1% of assistant professors, 39.7% of associate professors, and 19.2% of full professors, when compared with men at each level. Women faculty members were younger than men (mean: 48.4 years vs. 54.0 years,  $P < 0.001$ ) and had fewer total (mean: 24.1 vs. 37.8,  $P < 0.001$ ) and first/last author publications (mean: 16.7 vs. 32.2,  $P < 0.001$ ). In adjusted models, the rate of full professorship (vs. assistant or associate) among female compared with male infectious disease physicians was large and highly significant (absolute adjusted difference =  $-8.0\%$ ; 95% confidence interval [CI]:  $-11.9\%$  to  $-4.1\%$ ). This adjusted difference was greater in ID than in cardiology ( $-4.7\%$ , 95% CI:  $-7.9\%$  to  $-1.3\%$ ), hematology ( $-1.5\%$ , 95% CI:  $-6.2\%$  to  $3.2\%$ ), or endocrinology ( $-0.2\%$ , 95% CI:  $-4.9\%$  to  $4.6\%$ ).

**Conclusion.** Significant sex differences in publications and achieving the rank of full professor exist in academic ID, after adjustment for multiple factors known to influence these outcomes. Greater efforts should be made to address equity in academic ID.

**Disclosures.** All authors: No reported disclosures.

### 918. Typhoid Fever in the US Pediatric Population, 1999–2015, and the Potential Benefits of New Vaccines

Jarred McAteer, MD<sup>1</sup>; Gordana Derado, PhD<sup>2</sup>; Michael Hughes, MPH<sup>3</sup>; Amelia Bhatnagar, PhD<sup>4</sup>; Felicitia Medalla, MD, MS<sup>2</sup>; Kevin Chatham-Stephens, MD, MPH<sup>2</sup>; Grace D. Appiah, MD, MS, FAAP<sup>5</sup> and Eric D. Mintz, MD, MPH<sup>2</sup>, <sup>1</sup>Waterborne Disease Prevention Branch, Centers for Disease Control and Prevention, Atlanta, Georgia, <sup>2</sup>Division of Foodborne, Waterborne, and Environmental Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, <sup>3</sup>Atlanta Research and Education Foundation, Inc., Atlanta, Georgia, <sup>4</sup>Division of Foodborne, Waterborne, and Environmental Diseases, US Centers for Disease Control and Prevention Atlanta, Atlanta, Georgia, <sup>5</sup>Division of Foodborne, Waterborne and Environmental Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia

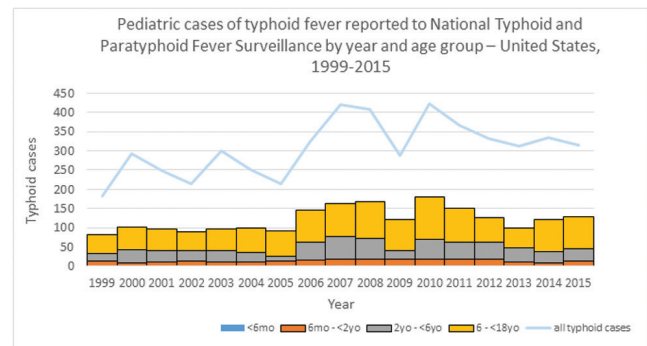
**Session:** 112. Bacterial Infections and Antimicrobial Stewardship  
Friday, October 5, 2018: 8:45 AM

**Background.** In the United States, typhoid fever is rare. About 300 typhoid cases are reported to CDC annually through the National Typhoid and Paratyphoid Fever Surveillance (NTPFS) system. Most are acquired during international travel and while visiting friends and relatives. CDC recommends pretravel vaccination of at-risk children with one of two currently available vaccines: oral (age  $\geq 6$  years) or injectable (age  $\geq 2$  years). In anticipation of licensure of new protein-conjugate typhoid vaccines that could be administered to children  $\geq 6$  months old, we characterized clinical, epidemiologic, and antimicrobial resistance data of pediatric typhoid fever cases reported to CDC.

**Methods.** We reviewed laboratory-confirmed *Salmonella enterica* serotype Typhi infections reported to NTPFS and antimicrobial resistance data on Typhi isolates in the National Antimicrobial Resistance Monitoring System (NARMS) from 1999 to 2015.

**Results.** Of 2,051 pediatric ( $\leq 18$  years) cases of typhoid fever, 80% had traveled internationally within 30 days of illness onset (most frequently to South Asia [82%]), 81% were hospitalized (median duration 6 days; range 0–77 days), and none died. Eight hundred twenty-seven (40%) were  $< 6$  years old; 219 (26%) were 6 months–2 years old. While 76% of pediatric cases were vaccine eligible (travelers  $\geq 2$  years old), only 6% were known to be vaccinated. Of 2,020 isolates tested for antimicrobial susceptibility, 1,211 (60%) had decreased susceptibility or resistance to ciprofloxacin, of which 277 (23%) were also resistant to ampicillin, chloramphenicol, and trimethoprim/sulfamethoxazole (multidrug-resistant [MDR]). None were resistant to ceftriaxone or azithromycin. MDR isolates were more likely in children than adults (16% vs. 9%,  $P < 0.05$ ) and in travel-associated than domestically acquired cases (16% vs. 6%,  $P < 0.05$ ).

**Conclusion.** Among pediatric cases of typhoid fever, 94% of currently vaccine-eligible travelers were unvaccinated. Emphasis on current vaccine indications and an effective pretravel typhoid vaccine for children between 6 months and 2 years old available during routine immunization visits could begin to reduce the burden of disease, and help prevent drug-resistant infections, in this vulnerable age group.



**Disclosures.** All authors: No reported disclosures.

### 919. Clinical and Microbiologic Characteristics Associated With Long-Term Orthopedic Complications Following *Staphylococcus aureus* Acute Hematogenous Osteoarticular Infections in Children

J. Chase McNeil, MD<sup>1</sup>; Eric Kok, BS<sup>2</sup>; Lauren Sommer, MS<sup>2</sup>; Jesus G. Vallejo, MD, FIDSA<sup>3</sup>; Kristina G. Hulten, PhD<sup>4</sup> and Sheldon L. Kaplan, MD, FIDSA<sup>4</sup>, <sup>1</sup>Pediatrics, Section of Infectious Disease, Baylor College of Medicine, Houston, Texas, <sup>2</sup>Baylor College of Medicine, Houston, Texas, <sup>3</sup>Pediatrics, Baylor College of Medicine and Texas Children's Hospital, Houston, Texas and <sup>4</sup>Baylor College of Medicine and Texas Children's Hospital, Houston, Texas

**Session:** 112. Bacterial Infections and Antimicrobial Stewardship  
Friday, October 5, 2018: 8:45 AM

**Background.** *Staphylococcus aureus* is the most common cause of acute hematogenous osteoarticular infections (AHOAs) in children. While the vast majority of patients do well, a small proportion experience significant morbidity, including chronic infection and pathologic fractures. We sought to describe clinical and microbiologic variables present on the index admission that may predict long-term orthopedic complications (OC).

**Methods.** Cases of *S. aureus* AHOAI were identified from 2011 to 2016 at Texas Children's Hospital (TCH). All cases were reviewed for the development of OC until April 1, 2018. OC included chronic osteomyelitis (CO), growth arrest/limb length discrepancy, avascular necrosis, chronic dislocation, and pathologic fracture (PF) with or without angular deformity. All *S. aureus* isolates were characterized by PCR for Pantone-Valentine Leukocidin (PVL) genes and *agr* group. Statistical Analyses were performed with STATA.

**Results.** A total of 252 cases were identified meeting inclusion criteria (figure). Twenty-four (9.5%) developed OC; of which, 50% were CO and 25% PF. Patients who developed CO more often had positive blood cultures during the index admission ( $P < 0.001$ ), surgical drainage after hospital day 2 (33.3% vs. 8.8%,  $P = 0.02$ ) as well as a longer time to 50% reduction in C-reactive protein (CRP, 9 vs. 7 days,  $P = 0.01$ ). Patients who developed PF more often had infection due to PVL-positive organisms (83.3% vs. 38.6%,  $P = 0.03$ ) and had a longer duration of fever after admission (9.5 vs. 2.5 days,  $P = 0.03$ ). Overall, OC were associated with ICU admission ( $P = 0.04$ ), a slower decline in CRP ( $P = 0.02$ ) and a greater proportion of patients with surgery after hospital day 2 ( $P = 0.04$ ) as well as infection secondary to *agr* III isolates ( $P = 0.03$ ). There was no statistically significant relationship between OC and patient age, affected bone, time to initiation of effective antimicrobial therapy, duration of intravenous therapy, or final antibiotic choice.