determine the burden of multi-drug-resistant *A. baumannii* infections in ICU of Mubarak hospital, Kuwait over 3 years period.

**Methods.** *A. baumannii* infections/colonization of ICU patients attended by infection prevention (IP) team at our hospital over a period of 3 years, January 2014 to December 2016, were included in the study. Outbreak size, mortality, source and outbreak control measures were carefully recorded. The isolates were identified and tested for their susceptibilities by semi-automated VITEK-2 system. The clonality of the isolates was determined by molecular typing methods using REP-PCR DiversiLab or pulsed-field gel electrophoresis.

**Results.** A total of 164 episodes of infections/colonization was encountered. Of these, 84 (51.2%) were proven cases of sepsis. In 2014, 2015 and 2016, 26/13, 37/32 and 21/35 episodes of infection/colonization, respectively, were recorded. During this period, 2 outbreaks each involving 9 and 13 patients in 2014, 3 outbreaks involving 11, 15 and 20 patients in 2015, and 1, 2 and 2 outbreaks of 15 and 9 patients in 2016 were encountered. The main sources of infections/colonization were respiratory (58.5%), BS (23.8%), urinary tract (7.9%), surgical site (6.1%), CSF (1.8%), and intra-abdominal (1.8%). The associated mortality rates were 23.1, 41.6, and 11.3%, respectively. Over 84% of the isolates were multidrug-resistant organisms. Analysis of molecular typing demonstrated clonality only among 5 isolates in 2014, 9 in 2015, and 8 in 2016, with no carry-over of related strains from year to year; the rest were heterogeneous. Despite implementation of stringent infection control measures, such as screening of patients, contact precautions and cohort isolation, enhanced environmental cleaning, limiting of patient transfers, and staff/patient education with emphasis on hand hygiene, *A. baumannii* persisted in the unit.

**Conclusion.** Our study demonstrates a high burden of *A. baumannii* in our ICU throughout the 3 years and with outbreaks in between. Programs to improve IP practice and address antibiotic resistance in the ICU are urgently required.

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

461. In Vitro Susceptibility Profiles of *Klebsiella* spp. Isolated from ICU and non-ICU Wards in North and Latin America (TEST 2012–2016)

Daryl Hoban, PhD; Martha Renteria, MD; Dan Sahm, PhD; and Heidi Leister-Tebbe, BSN, IHMA, Inc., Schaumburg, Illinois, International Health Management Associates, Inc., Schaumburg, Illinois, Pfizer, Inc., Collegeville, Pennsylvania

**Session:** 56. HAI: Outbreaks

**Thursday, October 5, 2017: 12:30 PM**

**Background.** *Klebsiella* spp. are one of the most frequently isolated Gram-negative pathogens infecting seriously ill patients in intensive care units. Increasing resistance mechanisms associated with this species group has led to the inclusion of *K. pneumoniae* as a member of the ESRAPE pathogens as determined by the Infectious Disease Society of America (IDSA). Regional variations of susceptibility to several classes of antimicrobial agents can provide guidance when selecting appropriate antimicrobial therapy. Data from Tigecycline Evaluation Surveillance Trial (TEST) program 2012–2016 were used to determine antimicrobial susceptibility patterns in *Klebsiella* spp. in patients in ICUs and non-ICUs in both Latin America (LA) and North America (NA). Methods. *Klebsiella* spp. isolates were identified locally and antimicrobial susceptibility testing was done using broth microdilution according to CLSI guidelines at each participating institution in NA and LA. CLSI or FDA (tigecycline) breakpoint criteria were applied to define susceptibility status.

**Results.** Susceptibility by region and patient location are shown in the following table.

| Region/Locality | (nMCCys)/% S |
|----------------|-------------|
| North America | Latin America |
| drug | Non-ICU (2255) | ICU (251) | Non-ICU (523) |
| Tigecycline | 1/95.9 | 1/95.7 | 2/94.8 | 2/95.9 |
| Amikacin | 4/98.8 | 4/98.9 | 16/99.6 | 8/94.6 |
| Ceftazidime | 2/90.0 | 2/90.0 | >32/62.2 | >32/62.1 |
| Cefepime | 16/88.6 | 16/88.1 | >16/56.2 | >16/56.9 |
| Levofloxacin | 1/91.6 | 4/88.6 | >8/74.1 | >8/89.7 |
| Meropenem | 0.12/96.4 | 0.12/96.3 | 16/83.7 | 8/85.3 |
| Pip-Tazo | 128/88.5 | 16/80.7 | >128/69.3 | >128/70.4 |

**Conclusion.** *Klebsiella* spp. infections are becoming a treatment challenge due to several resistance mechanisms, particularly ß-lactamases. Decreased activities among all agents were observed among *Klebsiella* spp. isolated in LA compared with NA. Isolates of *Klebsiella* spp. collected from patients in ICU wards demonstrated comparable susceptibility to those from non-ICU wards in both North America and Latin America. Because resistance patterns can vary with patient locations continued monitoring of antimicrobial trends based on location parameters is warranted.

**Disclosures.** D. Sexton, Centers for Disease Control and Prevention: Grant Investigator, Grant recipient. Centers for Disease Control and Prevention Foundation: Grant Investigator, Grant recipient. UpToDate: Collaborator, Royalty Recipient

462. An Increase in Invasive Infections due to *Corynebacterium striatum* at an Academic Medical Center

Becky Smith, MD; Kirk Huslage, RN, BSN, MS; Barbara D. Alexander, MD, MHS, FIDSA; Julia Messina, MD; Daniel Sexton, MD; and Sarah S. Lewis, MD MPH

**Session:** 56. HAI: Outbreaks

**Thursday, October 5, 2017: 12:30 PM**

**Background.** After identifying an increase in invasive infections due to *Corynebacterium striatum* (CS) in 2016, we evaluated the epidemiology of *C. striatum* infections in our system.

**Methods.** We reviewed microbiology records to determine the number of patients with cultures growing CS from 1/1/14 to 12/31/16. Prior to 11/2015, diphtheroids identified from sterile body sites were sent to a reference lab for identification (ID); beginning in November 2015, MALDI-TOF was used by the microbiology lab for CS ID. Two infectious diseases physicians reviewed charts of all 2016 cases using a standardized data collection tool and determined whether patients had infection vs. colonization.

**Results.** We identified 3.6, and 50 patients with cultures growing CS in 2014, 2015, and 2016, respectively. Thirty-six (72%) of the patients in 2016 were felt to have true infection. Skin and soft-tissue infections and osteomyelitis were the most common sites (Figure). The majority of infected patients were immunocompetent, had community-acquired (CA) infections, received antibiotics in the prior 60 days, and required prolonged courses of antimicrobial treatment (Table). No epidemiologic link was identified for nosocomial or CA infections.

**Conclusion.** The notable increase in clinically significant CS infections at our institution warrants further investigation. Whole genome sequencing may offer insight into whether a specific clone is responsible for more invasive disease.

**Disclosures.** D. Sexton, Centers for Disease Control and Prevention: Grant Investigator, Grant recipient. Centers for Disease Control and Prevention Foundation: Grant Investigator, Grant recipient. UpToDate: Collaborator, Royalty Recipient

463. Control of Cat Flea Infestation in Neonatal and Pediatric Intensive Care Units

Thana Khawcharoenporn, MD, MSc; Kanokporn Thongrubhut, RN; Sunee Aumtripatkul, RN; Prasert Saichua, PhD; and Pornumpa Bunjoungmanee, MD

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**Conclusion.** The notable increase in clinically significant CS infections at our institution warrants further investigation. Whole genome sequencing may offer insight into whether a specific clone is responsible for more invasive disease.

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