

Session: P-70. Skin and Soft Tissue

**Background.** Members of the genus *Nocardia* are filamentous, gram-positive, aerobic bacteria and exist ubiquitously in most environments. In 2001, the species *Nocardia veterana* was first isolated, and it predominantly causes pulmonary infections in immunocompromised hosts.

**Methods.** We present the first report of a soft tissue abscess caused by *N. veterana* in a 59-year-old woman being treated for chronic cutaneous graft-versus-host disease.

**Results.** After failing to improve with empiric treatment, two incision and drainage procedures were required. She subsequently completed a one-year course of oral antibiotic therapy consisting of trimethoprim-sulfamethoxazole then azithromycin. No relapse occurred. To better characterize *N. veterana* infections, we performed a systematic literature review and summarized all previously reported cases.

*Nocardia veterana* abscess



**Conclusion:** The rising prevalence of immunocompromising conditions warrants increased vigilance for *N. veterana* infections and other atypical or opportunistic pathogens.

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

#### 1558. Injection Drug Use-Related Skin and Soft Tissue Infections Serve as Sentinel Events for Healthcare Utilization in a Vulnerable Population

Ryan D. Knodle, MD<sup>1</sup>; Catherine Bielick, MD<sup>1</sup>; Shana Burrowes, PhD<sup>2</sup>; Tamar F. Barlam, MD, MSc<sup>1</sup>; Boston Medical Center, Boston, Massachusetts; <sup>2</sup>Boston University School of Medicine, Boston, Massachusetts

Session: P-70. Skin and Soft Tissue

**Background.** Persons with injection drug use (IDU) can have frequent skin and soft tissue infections (SSTIs) and high healthcare utilization. We sought to examine whether IDU-related SSTIs are associated with an acceleration in disease course and increased healthcare utilization (a 'sentinel event') and may present an important opportunity for intervention.

**Methods.** We performed a retrospective chart review of patients with an emergency department (ED) visit or hospital admission due to an IDU-related SSTI between 10/1/2015 and 6/1/2019 to obtain information on demographics, microbiologic data, addiction service consultation, and treatment with medications for opioid use disorder (MOUD). We compared the number of healthcare encounters in the 12 months before and after the SSTI using the Wilcoxon signed rank test for data with non-normal distribution. We examined differences in the distribution of variables between patients who were admitted and those discharged from the ED using Chi Square and Fisher exact tests for categorical variables and t-tests and Wilcoxon tests for continuous variables.

**Results.** In all, 305 patients met inclusion criteria for an IDU-related SSTI. The patients were 66.5% male, had a median age of 41 years (range 23-70), 84% were experiencing homelessness and 87% had Medicaid. Most patients (55.7%) were admitted to the hospital and the remainder were discharged from the ED. There was a statistically significant change in healthcare utilization in the year prior to the SSTI compared to the year after (median change +16.7%,  $p < 0.0001$ ). Compared to those who were admitted, it was rare for patients discharged from the ED to have microbiologic data

sent (13% vs 87%,  $p < 0.0001$ ), an addiction consult completed (4% vs 96%,  $p < 0.0001$ ), or to be discharged on MOUD (8.0% vs 92%,  $p < 0.0001$ ). Despite these differences, there were no significant predictors of high vs low utilization among all-comers based on demographic and clinical data.

**Conclusion.** IDU-related SSTIs serve as sentinel events with increased healthcare utilization after the episode. Addiction consultation and initiation of MOUD had no impact on the trajectory of healthcare utilization. Further work must be done to identify how best to improve outcomes for this vulnerable population.

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

#### 1559. Methicillin Susceptible Staphylococcus aureus Is The Predominant Organism In Septic Bursitis With The Majority Involving The Olecranon Bursa: A Study Of 61 Cases

DON KANNANGARA, MD, MSc, PhD, DTM&H, MRCP<sup>1</sup>; Dhyanesh Pandya, MD<sup>1</sup>; <sup>1</sup>St Luke's University Health Network, Bethlehem, PA

Session: P-70. Skin and Soft Tissue

**Background.** Bursae are fluid filled structures between mobile parts of the musculoskeletal system to reduce friction between surfaces by lubrication. The most frequently infected are the olecranon and prepatellar bursae. In reported studies there is male preponderance, a relationship to occupational or recreational activities, a mean age of about 50 years and the most frequent organism being *Staphylococcus aureus*. The frequency of methicillin resistance is not well documented.

**Methods.** We analyzed approximately 7000 *Staphylococcus aureus* isolates reported by the laboratory over a 3-year period in 10 of our network hospitals, 9 in Eastern Pennsylvania and one in adjacent Warren County, New Jersey and found 61 cases of *S. aureus* septic bursitis.

**Results.** Only 13/61 (21.3%) were caused by methicillin resistant *S. aureus* (MRSA), 8 olecranon (61.5%), 4 prepatellar (30.8%) and one subacromial (7.7%). Only one in MRSA group (olecranon bursitis) was female. The mean age of MRSA cases was 58.5. Methicillin susceptible *S. aureus* (MSSA) predominated with 34/48 (70.8%) olecranon bursitis (28M/6F), 11/48 (22.9%) prepatellar bursitis (10M/1F) and 3/48 (6.3%) sub acromial bursitis (1M/2F) with a mean age of 61.9. Overall (MRSA +MSSA), 51/61 (83.6%) were male and 10/61 (16.4%) were female. The olecranon bursa was involved in 42/61 (68.9%), prepatellar bursa 15/54 (24.6%) and subacromial bursa 4/54 (6.6%). The mean age for the entire group was 61.2 with the youngest 23 and the oldest 93. The occupational history was recorded only in a few patients e.g. roofer, floor worker, construction worker. Three in the MSSA group had bacteremia (2 subacromial bursitis and 1 olecranon bursitis). There was 1 death from gram negative sepsis which was unrelated. The majority were successfully treated with a combination of drainage and antibiotics.

**Conclusion.** In summary, our study shows a predominance of olecranon bursitis, with a higher incidence in males and majority caused by MSSA. The mean age around 61 was higher than the mean age in prior reports around 50 years. Elbows and knees accounted for 57/61 (93%) cases of septic bursitis. Avoidance of activities involving friction or repeated trauma to elbows and knees should help prevention of septic bursitis. As far as we are aware, this is the largest series of septic bursitis reported.

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

#### 1560. Microbiology of Necrotizing Fasciitis and Implications on Antimicrobial Stewardship

Glen Huang, DO<sup>1</sup>; Brian Kim, PharmD<sup>2</sup>; Arthur Jeng, MD<sup>2</sup>; <sup>1</sup>University of California - Los Angeles, Los Angeles, California; <sup>2</sup>Olive View-UCLA Medical Center, Sylmar, CA

Session: P-70. Skin and Soft Tissue

**Background.** Necrotizing fasciitis (NF) is a rare but deadly soft tissue infection. Early diagnosis, antibiotics, and surgical management are critical in treatment. Current IDSA guidelines recommend broad empiric antibiotics (eg, vancomycin + piperacillin-tazobactam or a carbapenem). At our institution, this invariably consists of empiric treatment for methicillin-resistant *Staphylococcus aureus* (MRSA) and resistant gram-negative organisms (eg, *Pseudomonas aeruginosa*), usually with piperacillin-tazobactam. Clindamycin is the common third agent used empirically; however, the literature supports use of clindamycin only in confirmed cases of Group A *Streptococcus* (GAS). With the increasing dangers of antibiotic resistance, use of such broad agents may not be necessary for NF. We evaluated the microbiology of NF and the implications on empiric antibiotic treatment.

**Methods.** Retrospective chart review of adults ( $\geq 18$  years) with a diagnosis of NF from January 2016 to May 2020.

**Results.** Twenty-five cases of NF in 22 patients were recorded. The median age was 54.5 (IQR 37-59.8) and 15 (60%) were male. On presentation, 24 (96%) met systemic inflammatory response syndrome criteria with a median laboratory risk indicator for necrotizing fasciitis score of 15 (IQR 9-31.3,  $n = 20$ ). The median presenting white blood cell count was  $17.5 \times 10^3$  cells/uL (IQR 13.5-25.2), median C-reactive protein was 321.6 mg/L (IQR 25.9-37.6) and median creatinine was 1.2 mg/dL (IQR 0.7-1.6). The most frequently isolated organisms were anaerobes ( $n=9$ , 36%) and *Streptococci* other than GAS ( $n = 9$ , 36%). GAS was isolated in 6 patients (24%) and *S. aureus* in 2 patients (8%). All cases of *S. aureus* were methicillin-susceptible. No *Pseudomonas* species (PsA) or extended-spectrum beta-lactamase (ESBL) gram negative organisms were isolated. Three patients (12%) had no organisms isolated from surgical cultures. Seven patients (28%) had positive blood cultures. Of the empiric antibiotics used, 24 (96%) patients were exposed to clindamycin and an anti-pseudomonal antibiotic.