### Table 2: Multivariable logistic regression of SSI within 30-day of discharge

| Predictor | OR (95% CI) | P-value |
|-----------|-------------|---------|
| Age       | 0.99 (0.98–1.01) | 0.97   |
| Female    | 1.21 (0.84–1.75) | 0.31   |
| Surgery   | Ref.         |         |
| KA        | *            |         |

*Including only variables with P-value <0.2 in UV analysis.

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

### 253. Microbiology and Clinical Characteristics of Industrial Oil Burns

**Devlin Kelly, DO; Julie Rizzo, MD;**

**Heather Yun, MD, FIDSA;** and Dana Blyth, MD, **Dept. of Medicine, Infectious Disease Service, San Antonio Military Medical Center, Joint Base San Antonio-Fort Sam Houston, Texas, Dept. of Surgery, San Antonio Military Medical Center, Joint Base San Antonio-Fort Sam Houston, Texas, United States Army Institute of Surgical Research, Ft Sam Houston, Texas, Uniformed Service University of the Health Sciences, Bethesda, Maryland**

**Session:** 47. Clinical: Skin and Soft Tissue

**Background.** Injured oil workers are exposed to a broad microbiome in hydraulic fracturing fluids (HFF) and oil wells at the time of injury. This includes Pseudomonas, Stenotrophomonas, Acinetobacter, and rare human pathogens which may be harder to culture. This study evaluates oil-related burn (ORB) microbiology.

**Methods.** Patients admitted to the USAISR burn center enrolled in the Epidemiology of Workplace Burns and Injuries in Texas registry from April 2011 to November 2016 were included as cases and controls. Patients hospitalized ≥2 days were excluded. ORB was defined as exposure to HFF (FORB), or non-HFF (NFORB). Controls were patients admitted with industrial burns (non-ORB). Patient demographics and clinical cultures (days 1–15) were obtained through the registry and electronic medical record.

**Results.** 149 industrial burns were included, of which 35 (23%) were ORB and 114 (77%) were non-ORB. Of the ORB, 11 (31%) were FORB and 24 (69%) were NFORB. ORB had a median age, TBSA, and Baux score of 31, 25, and 58 compared with 36, 4, and 44, respectively (P < 0.01). Twenty-five patients had positive cultures: 12 (48%) non-ORB and 13 (52%) ORB. Sixty isolates identified from the ORB population included Flavobacterium, Pseudomonas, and Serratia. FORB accounted for three (7%) of the culture positive ORB patients, where 1 was isolated in 1 FFB (33%) compared with 0 NFORB and non-ORB (P < 0.05). Otherwise, there was no statistical difference in isolates. Median time to first positive culture differed among non-ORB (4 days), FORB (13 days), and NFORB (3.5 days, P = 0.03). Forty-six (31%) patients had cultures obtained during admission: three (7%) FORB, 12 (26%) NFORB, and 31 (67%) non-ORB. Of cultured patients, ORB had a median TBSA and Baux score of 44 and 90 compared with non-ORB with 11 and 47, respectively (P < 0.01). Comparing all cultured patients, ORB had more positive, negative, and total cultures compared with non-ORB with 2 vs. 0.7 vs. 3, and 10 vs. 3, respectively (P < 0.01).

**Conclusion.** Within this cohort, ORB was associated with more severe infections compared with non-ORB. They had more positive, negative, and total cultures, and recovery of S. marcescens was associated with FORB. Larger studies with non-culture based technology could help further define the microbiology of this uniquely exposed population.

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

### 254. Hospital Costs for Patients with Lower Extremity Cellulitis: A Retrospective Population-Based Study

**Douglas Challener, MD; Jasmine R. Marcellin, MD; Sue Visscher, PhD; and Larry St. Donn, MD**

**Pittsburgh, PA; Rochestier, Rochester, Minnesota, Division of Infectious Diseases, Mayo Clinic, Rochester, Minnesota, Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery, Mayo Clinic, Rochester, Minnesota**

**Session:** 47. Clinical: Skin and Soft Tissue

**Background.** Hospital admissions for non-purulent lower extremity cellulitis (NLEC) are common and can be prolonged and costly. Newer treatment options and prophylactic strategies should be explored to reduce cost savers and implement a cost saving model, but few studies have quantified the cost of conventional treatment.

**Methods.** Using the Rochester Epidemiology Project, the incidence of NLEC in Olmsted County, MN in 2013 was 176.6 per 100,000 persons. The subset of patients who required hospitalization for NLEC was determined. Hospital admissions were analyzed retrospectively using standardized cost analysis within several relevant categories.

**Results.** Thirty-four patients had an average hospital length of stay of 4.7 days. The median total inpatient cost was $7,341. The median cost per day was $2,087. The bulk of this cost was related to room and board. Antibiotics for treatment of NLEC contributed a median cost of $75 per day of hospitalization, and laboratory or imaging tests cost $73 and $44, respectively, per day of hospitalization.

**Conclusion.** Hospitalizations NLEC can be costly and prolonged, although antibiotic therapy was relatively inexpensive as compared with room and board. Therefore, newer treatment strategies should aim to reduce hospital length of stay and/or avoid hospital admission to reduce cost.

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

### 255. Sex Work, Injection Drug Use, and Abscesses: Associations in Women, But Not Men

**Deirdre Burke, MPH; Alyse Wurcel, MD, MS; David Landy, BS; Margie Skeer, ScD, MPH, MSW; Robert Heimer, PhD; Kenneth K. H. Chui, PhD; and Thomas Stopka, PhD, MHS**

**Tufts Medical Center, Tufts University, Boston, Massachusetts, Department of Geographic Medicine and Infectious Diseases, Tufts Medical Center, Boston, Massachusetts, Public Health and Community Medicine, Tufts University School of Medicine, Boston, Massachusetts, Public Health, Tufts University School of Medicine, Boston, Massachusetts, Yale School of Public Health, New Haven, Connecticut**

**Session:** 47. Clinical: Skin and Soft Tissue

**Background.** Abscesses are a common health issue for people who inject drugs (PWID). Females have a higher risk of abscesses, yet it is unclear if the risks are comparable among female sub-populations. The goal of this study was to examine the associations between gender, sex work, and risks of abscesses in PWID.

**Methods.** We combined data from two cross-sectional studies conducted in the greater Boston area with 225 participants aged 18–45 years, who participated in injection drug use in the previous 30 days. Demographics, injection-mediated risks, and sexual behaviors were collected using ACASI. Injection drug use was defined as “high” if injection frequencies exceeded the median. Odds ratios from multivariable logistic regressions were used to represent the associations; all analyses were gender-stratified.

**Results.** The cohort was 31% women (71/225). White race was more common in women than men (89% vs. 63%). Women were more likely than men to report: sex work 31% vs. 14%, heavy heroin use 56% vs. 40%, HCV 76% vs. 61%, abscesses 54% vs. 38%. Controlling for confounders, females who engaged in sex work had >7 times higher odds of reporting abscesses [AOR 7.51; 95% CI (1.41, 40.07)]. There was no association between sex work in men and increased risk for abscesses.

**Conclusion.** We found a gender-specific association between sex work, injection drug use, and abscesses among PWID. The cross-sectional designs precluded causal inferences; further longitudinal studies are necessary to better understand the gender-associated risks for abscesses and to develop harm reduction interventions.

**Factors Associated with Abscess for Female PWID, Massachusetts, 2015–2016 (n = 71)**

| Predictor | N (%), median (IQR) | OR (95% CI) | ADR |
|-----------|---------------------|-------------|-----|
| Sex work  | 22 (31)             | 3.27 (1.00, 9.78) | 751 (1.41, 40.07) |
| Age       | 32 (30, 36)         | 0.97 (0.89, 1.06) | 0.90 (0.78, 1.04) |
| Heavy heroin use | 40 (56) | 1.92 (0.71, 4.17) | 3.60 (0.95, 13.69) |
| Heavy cocaine use | 15 (21) | 0.71 (0.23, 2.21) | 0.12 (0.02, 0.84) |
| White     | 63 (89)             | 1.17 (0.75, 1.51) | 0.32 (0.04, 2.94) |
| High school education or greater | 49 (69) | 0.55 (0.20, 1.54) | 0.43 (0.11, 1.74) |
| Homeless  | 59 (83)             | 4.38 (1.07, 17.85) | 5.16 (0.96, 28.13) |
| HCV+      | 4 (5)               | 4.68 (1.31, 16.66) | 11.26 (1.85, 68.67) |
| HIV+      | 2 (3)               | 0.98 (0.05, 14.39) | 0.44 (0.01, 26.84) |
| Needle exchange program | 50 (70) | 0.62 (0.11, 2.7) | 0.41 (0.10, 1.70) |

**Disclosures.** A. Wurcel, Tufts Medical Center, Tufts University School of Medicine: Grant Investigator, Grant recipient, Merck, BMS and Research support