severely ill patients. Prospective, randomized controlled trials are needed to establish the role of these agents in serious MSSA BSI.

Figure 1: Forest plot for treatment failure

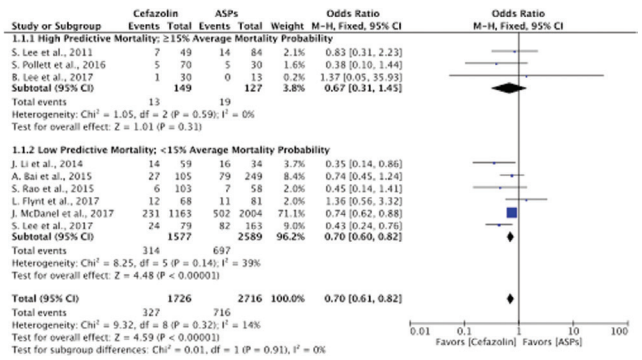
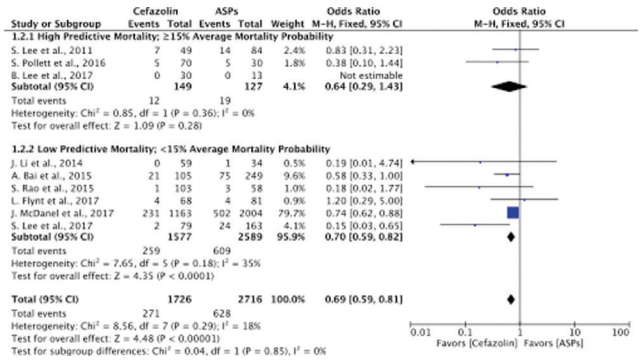


Figure 2: Forest plot for all-cause mortality



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

1069. Predictive Factors for Metastatic Infection in Patients With Bacteremia Caused by *Staphylococcus aureus*

Akihiro Shimizu, MD[1]; Tetsuya Horino, MD[1]; Yumiko Hosaka, MD[1]; Tokio Hoshina, MD[1]; Kazuhiko Nakaharai, MD[1]; Kwangyeol Lee, MD[1]; Makiko Miyajima, MD[1]; Yasushi Nakazawa, MD[1]; Masaki Yoshida, MD[1]; Hiroshi Yoshida, MD[2] and Seiji Hori, MD[1]; [1]Department of Infectious Diseases and Infection Control, Jikei University School of Medicine, Tokyo, Japan, [2]Department of Laboratory Medicine, Jikei University School of Medicine, Tokyo, Japan

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Background. Metastatic infections, such as infective endocarditis and pyogenic spondylitis, are very serious complications of *Staphylococcus aureus* bacteremia (SAB), because failure to identify metastatic infections may cause poor prognosis. The aim of the present study is to determine the predictive factors for metastatic infections of SAB.

Methods. This retrospective cohort study was conducted among patients with bacteremia due to *S. aureus* (including both methicillin-sensitive *S. aureus* and methicillin-resistant *S. aureus*: MSSA and MRSA) in The Jikei University Kashiwa Hospital. The study population comprised 125 adult patients with SAB between January 2014 and December 2017. Patients, that died or transferred within 3 months after the initial positive blood culture, were excluded, because metastatic infection was defined as deep-seated infection detected within 3 months after the initial positive blood culture. We analyzed several factors, including demographics, comorbidities, community acquisition, primary site of infection, persistent fever and laboratory data such as c-reactive protein (CRP) levels after treatment.

Results. Seventy-four patients met inclusion criteria of this study. The most common primary site of bacteremia was catheter-related [24 (32.4%) of 74]. Metastatic infection occurred in 22 (29.7%) of 74 patients, and spondylitis was most common, following psoas abscess. Of these, 11 infections (50% of 22) were community acquired. We did not find any significant differences in demographics and comorbidities, except central venous catheter-associated bloodstream infection, which was associated with low rate of metastatic infection. By multivariate analysis, the predictive factors associated with the development of metastatic infection were community onset of infection (OR 11.6; 95% CI 2.98–45.1; $P < 0.001$), persistent fever over 72 hours (OR 6.7; 95% CI 2.12–21.8; $P = 0.001$), and higher CRP levels (>3 mg/dL) lasting 2 weeks after the administration of appropriate antibiotics (OR 7.47; 95% CI 2.39–23.3; $P < 0.001$).

Conclusion. This study demonstrated that additional diagnostic tests to identify metastatic infection should be performed, especially in the patients with community-acquired SAB, persistent fever or persistently high CRP levels after the administration of appropriate antibiotics.

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

1070. Epidemiological and Clinical Features of Panton–Valenton Leukocidin-Positive *Staphylococcus aureus* Bacteremia: A Case–Control Study

Humera Kausar, MD[1]; Stephen Smith, BA[2]; Ming Da Qu, MD[3]; Peter G Lazar, BS[4]; Aimee Kroll-Desrosiers, MS[4]; Bruce Barton, PhD[4]; Doyle V Ward, PhD[5] and Richard T Ellison III, MD, FIDSA, FSHEA[1]; [1]Infectious Diseases and Immunology, University of Massachusetts Medical School, Worcester, Massachusetts, [2]Philips Health Care and University of Massachusetts Medical School, Worcester, Massachusetts, [3]University of Massachusetts Medical School, Worcester, Massachusetts, [4]Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, Massachusetts, [5]Microbiology and Physiological Systems, University of Massachusetts Medical School, Worcester, Massachusetts

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Background. The presence of the binary Panton-Valentine Leukocidin (PVL) toxin in *Staphylococcus aureus* has been associated with both severe pneumonia and skin and soft-tissue infections. However, there is only limited data on how this virulence factor impacts *S. aureus* bacteremia and whether it might affect the clinical course or complications of bacteremic infections.

Methods. Between September 2016 and March 2018, a convenience sample of *S. aureus* isolates from clinical cultures obtained in inpatient units and the Emergency Departments of UMass Memorial Medical Center underwent comprehensive genomic sequencing. Four hundred sixty-nine (29%) of 1,681 *S. aureus* sequenced isolates were identified as containing the *LukF* and *LukSPV* genes that encode for PVL. Case patients with one or more positive blood cultures for *LukF/LukSPV* + strains were randomly matched with control patients having positive blood cultures for *LukF/LukSPV*– strains for a retrospective chart review.

Results. The 55 case and 56 control patients were comparable in age and gender; case patients were more likely to have a history of injection drug use, while controls more likely to undergo hemodialysis or have had indwelling IV catheters. Case patients more commonly had chest pain and more prolonged fever; but had the same incidence of sepsis and septic shock. Isolates from 42 (76%) of case patients were methicillin resistant as compared with 16 (29%) from control patients. Elevations in serum creatinine and alkaline phosphatase were more common in control patients. Case patients had a higher incidence of pneumonia, with no differences seen in the incidence of endocarditis, osteomyelitis, or septic arthritis. The percentage of patients who were clinically cured or expired were comparable.

Conclusion. These results are consistent with prior observations associating the PVL toxin with community-acquired MRSA strains as well as severe staphylococcal pneumonia. However, it does not appear to otherwise influence the natural history of bacteremic *S. aureus* disease other than in prolonging the duration of fever.

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

1071. Impact of Standard vs. Prolonged Courses of Antibiotics for the Treatment of Uncomplicated *Staphylococcus aureus* Bacteremia (SAB) in Patients With Hematologic Malignancies

Edna Cheung, PharmD[1]; Matt G. McKenzie, PharmD[2]; Lydia Benitez Colon, PharmD, BCOP[2]; Keith S. Kaye, MD, MPH[3]; Lindsay Petty, MD[3]; Emily T. Martin, MPH, PhD[4]; Bernard L. Marini, PharmD, BCOP[1]; Anthony J. Perissinotti, PharmD, BCOP[1]; Gregory Eschenauer, PharmD, BCPS[1]; Cesar Alaniz, PharmD[1]; Katie L. Wallace, PharmD, BCPS[2] and Twisha S. Patel, PharmD, BCPS[1]; [1]Michigan Medicine, Ann Arbor, Michigan, [2]University of Kentucky HealthCare, Lexington, Kentucky, [3]Internal Medicine, Division of Infectious Diseases, Michigan Medicine, Ann Arbor, Michigan, [4]Epidemiology, University of Michigan School of Public Health, Ann Arbor, Michigan

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Background. The optimal treatment duration for uncomplicated SAB (U-SAB) is unknown in patients with hematologic malignancies. The goal of this study was to evaluate the impact of antibiotic duration on outcomes in patients with hematologic malignancies and U-SAB.

Methods. This was a multicenter, retrospective cohort study of adult patients with hematologic malignancies and U-SAB treated with standard (2 weeks) or prolonged (>2 weeks) antibiotic therapy. U-SAB was defined as defervescence and culture clearance within 96 hours of index culture and the absence of: endocarditis, implanted prostheses, metastatic sites of infection, and bone/joint involvement. Patients with SAB therapy <10 days and those with inadequate source control were excluded. The primary outcome was a composite global clinical cure: absence of relapse SAB, absence of SAB progression, and survival at 60 days following index SAB.

Results. Of 89 included patients, 51% received a standard antibiotic duration for U-SAB. The median age of the entire cohort was 56 and majority was male (60%). Neutropenia was present at index culture in 53% of patients, and acute leukemia (48%) and lymphoma (26%) were the most common underlying malignancies. Other baseline characteristics were similar between the two groups except more patients in the standard duration group had relapsed/refractory malignancy (51% vs. 25%, $P = 0.016$), central-line source (71% vs. 48%, $P = 0.032$), and antibiotic prophylaxis prior to index SAB (42% vs. 18%, $P = 0.021$). Median duration of treatment in the standard group was 15 days vs. 28 days in the prolonged duration group. No differences in global clinical cure and other clinical outcomes were seen between groups (Figure 1).