Gray indicates significantly lower rate compared to pre-pandemic time period, black indicates significantly higher rates compared to pre-pandemic.

Methods: This was a multi-center, retrospective cohort analysis of all hospitalized patients from 267 US acute care facilities with >1-day inpatient admission between 7/1/19-5/19/21 (BD Insights Research Database [Becton, Dickinson and Company, Franklin Lakes, NJ]). SARS-CoV-2 infection was identified by a positive PCR during or ≤7 days prior to hospitalization. All admissions with a non-contaminant culture positive GN, GP, and fungal/yeast pathogen from a blood source were evaluated prior to and during the SARS-CoV-2 pandemic as rates per 1,000 admissions (p< .05 for significance).

Results. There were 2,001,793 admissions in the pre-SARS-CoV-2 period, 2,875,219 admissions during the SARS-CoV-2 pandemic. Incidence of GN/GP blood stream pathogens was significantly higher prior to the SARS-CoV-2 pandemic than during the pandemic. Higher rates of blood stream pathogens occurred in those who were tested for SARS-CoV-2, but all non-tested patients had significantly lower rates than pre-pandemic. Rates of Candida spp., Enterococcus spp., Serratia marcescens, and Enterobacter cloacae were higher in SARS-CoV-2 positive patients compared to pre-pandemic patients. Compared to the pre pandemic period, the incidence of B. fragilis, Streptococcus, Enterococcus and Candida were higher among those tested for SARS-CoV-2 but were negative.

Conclusion. In general, rates of positive blood cultures for bacterial pathogens were either lower or similar during the SARS-CoV-2 period compared to the pre-SARS-CoV-2 pandemic period. The patients that were tested for SARS-CoV-2 but were positive who had higher rates of infection than prior may indicate the similarity in viral and bacterial clinical presentation. Further evaluation of higher rates of Enterococcus and Candida in the pandemic period are warranted.

Disclosures. Laura A. Puzniak, PhD, Merck & Co., Inc. (Employee) Karri A. Bauer, PharmD, Merck & Co., Inc. (Employee, Shareholder) Kalvin Yu, MD, BD (Employee) Pamela Moise, PharmD, Merck (Employee) Vikas Gupta, PharmD, BCPA, Becton, Dickinson and Company (Employee, Shareholder)
A total of 154,147 distinct individuals (49.9% male) were analyzed in our hospital system. Stenotrophomonas bacteremia was associated with significant morbidity and mortality in hospitalized patients. Optimal therapy is unknown. In this study, we evaluated the impact of treatment agent, dosing associated with nosocomial infections. It is an emerging multi-drug resistant pathogen and outcome-based evaluations. Gender-based differences. Encouragingly, BSI incidence rates have decreased over time significantly different stratified by sex. Incidence rates (per 100,000 person-years) of BSI testing and cases by sex from 2011 through 2018 in a Canadian health region remain frequent and the youngest and oldest age groups as well as males in these age groups have the greatest BSI incidence rates which may reflect both biological sex and age-based differences. Incidence rates ranged from 180 to 292 per 100,000 person-years. Testing and case incidence for BSI was greatest in the 0-4 and 75+ years age groups (p < 0.01). Males compared to females had greater testing and case incidence rates in young and old age groups, but females had greater rates in the 15-44 years groups (p < 0.01). Overall IRR for cases comparing 2018 to 2011 was 0.62 (95% CI 0.59-0.65) reflecting a significant decrease over time. Testing also decreased over the study period with an IRR of 0.90 (95% CI 0.88-0.91). Testing and case IRRs were not significantly different stratified by sex.

### Results

| Category                        | Alive at 30 days (n = 48) | Died at 30 days (n = 21) | p-value |
|---------------------------------|---------------------------|--------------------------|---------|
| Female gender, n (%)            | 25 (52.1%)                | 6 (28.6%)                | 0.07    |
| Age, median (interquartile range)| 55 (37.25-70.75)          | 59 (52.66)               | 0.3     |
| Hematologic malignancy, n (%)   | 10 (20.8%)                | 7 (33.3%)                | 0.27    |
| Solid organ transplant, n (%)   | 11 (22.9%)                | 6 (28.6%)                | 0.62    |
| Pitt bacteriaemia score, median (interquartile range) | 0 (0.0) | 1 (0.4) | <0.01 |
| No antibiotics used within 30 days of culture, n (%) | 15 (31.3%) | 1 (4.8%) | 0.03 |
| Central line associated bloodstream infection, n (%) | 41 (85.4%) | 14 (66.7%) | 0.08 |
| Length of stay, median (interquartile range) | 13.5 (5.75-49.75) | 40 (30-89) | <0.01 |

### Conclusion

In our large population-based study of BSI, we identified that BSI remain frequent and the youngest and oldest age groups as well as males in these age groups have the greatest BSI incidence rates which may reflect both biological sex and gender-based differences. Encouragingly, BSI incidence rates have decreased over time at a greater increment relative to testing rates. Future studies of BSI should focus on pathogen and outcome-based evaluations.

### Disclosures

All Authors: No reported disclosures

### 225. Risk Factors for Mortality in Stenotrophomonas Bacteremia: A Retrospective Study

Glen Huang, DO; Matthew R. Davis, Pharm.D.; Paul R. Allyn, MD; UCLA, Los Angeles, California; UCLA Ronald Reagan Medical Center, Los Angeles, California

**Session:** P-10. Bacteremia

**Background.** Stenotrophomonas is a gram-negative organism typically associated with nosocomial infections. It is an emerging multi-drug resistant pathogen associated with significant morbidity and mortality in hospitalized patients. Optimal therapy is unknown. In this study, we evaluated the impact of treatment agent, dosing regimen, and patient characteristics on 30-day mortality for Stenotrophomonas bacteremia in our hospital system.

**Methods.** We conducted a retrospective cohort study from 2011 through 2018 using a population-based microbiology database to determine the annual age- and sex-specific BSI testing and case rates with the census as the population reference. BSI was defined as a positive blood culture for a pathogen. Episodes > 30 days apart were included for analysis. Incidence rate ratios (IRR) for testing and case rates including by sex were calculated to assess changes over time. All analyses were run at a two-sided α of 0.05 and were conducted with R 4.0.4.

**Results.** A total of 154,147 distinct individuals (49.9% male) were analyzed and 22,869 (14.8%) had a BSI at the first encounter in the study period. Overall BSI testing incidence ranged from 1529 to 1707 per 100,000 person-years and case incidence ranged from 180 to 292 per 100,000 person-years. Testing and case incidence for BSI was greatest in the 0-4 and 75+ years age groups (p < 0.01). Males compared to females had greater testing and case incidence rates in young and old age groups, but females had greater rates in the 15-44 years groups (p < 0.01). Overall IRR for cases comparing 2018 to 2011 was 0.62 (95% CI 0.59-0.65) reflecting a significant decrease over time. Testing also decreased over the study period with an IRR of 0.90 (95% CI 0.88-0.91). Testing and case IRRs were not significantly different stratified by sex.

### Conclusion.

In our large population-based study of BSI, we identified that BSI remain frequent and the youngest and oldest age groups as well as males in these age groups have the greatest BSI incidence rates which may reflect both biological sex and gender-based differences. Encouragingly, BSI incidence rates have decreased over time at a greater increment relative to testing rates. Future studies of BSI should focus on pathogen and outcome-based evaluations.

### Disclosures.

All Authors: No reported disclosures

### 226. Multidrug Resistant Polymicrobial Gram-negative Bacteremia in Hematologic Cancer Patients with Febrile Neutropenia at the Uganda Cancer Institute

Margaret Lubwama, MBChB, MMed; Freddie Rwanga, MBChB, MMed, PhD; David Kakeete, MSc, PhD; Scott Adams, PhD; Betty Namubiru; Barbara Nabiryo; Jackson Orem, MBChB, MMed, PhD; Warren Phipps, MD, MPH; Makerere University, Kampala, Kampala, Uganda; Fred Hutchinson Cancer Research Center, Seattle, WA; Hutchinson Centre Research Institute in Uganda, Kampala, Kampala, Uganda; Uganda Cancer Institute, Kampala, Kampala, Uganda; Fred Hutchinson Cancer Research Center, University of Washington, Seattle, WA

**Session:** P-10. Bacteremia

**Background.** Bloodstream infections (BSI) are associated with significant mortality in hematologic cancer patients with febrile neutropenia. Poor clinical outcomes are associated with presence of multidrug resistant (MDR) organisms and polymicrobial infections. We sought to determine antimicrobial resistance and outcomes of polymicrobial bloodstream infections in hematologic cancer patients with febrile neutropenic episodes (FNEs) at the Uganda Cancer Institute.

**Methods.** Retrospective chart review from April 2013 to September 2019 at Ronald Reagan and Santa Monica UCLA Medical Centers in Los Angeles, California. Adult patients who were hospitalized and received active therapy for Stenotrophomonas bacteremia were included in the study. Chi-square or Fischer test was used for categorical variables, Student’s t-test or Mann-Whitney U test was used for continuous variables.

**Results.** Sixty-nine patients were included in the study. The median age was 53 and 31 patients (44.9%) were female. Central line associated infections were the most common source of infection (79.7%, n = 55). Two patients (3%) had a relapse of infection. The overall 30-day mortality was 30.4% (n=21). The patients who did not survive to 30 days tended to have a higher Pitt bacteremia score, a longer length of stay, and were more likely to have used other antibiotics in the 30 days prior to culture collection. Trimethoprim-sulfamethoxazole (TMP-SMX) was the most common antibiotic used for treatment (n = 45, 65.2%). Of the patients who were treated with TMP-SMX, 19 were treated with high-dose (defined as 15 mg/kg or equivalent) and 26 had an alternative dosage after adjusting for renal function. There was no difference in 30-day mortality in the TMP-SMX high dose vs alternative dose (42.1% vs 30.8%, p = 0.53).

**Conclusion.** Stenotrophomonas bacteremia was associated with high mortality. High-dose TMP-SMX did not impact survival in our study; however, this may be due to small sample size. More research is needed to determine optimal therapy.

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

## Table 1. Clinical characteristics of patients alive vs dead at 30 days after positive blood culture for stenotrophomonas

| Category                        | Alive at 30 days (n = 48) | Died at 30 days (n = 21) | p-value |
|---------------------------------|---------------------------|--------------------------|---------|
| Female gender, n (%)            | 25 (52.1%)                | 6 (28.6%)                | 0.07    |
| Age, median (interquartile range)| 55 (37.25-70.75)          | 59 (52.66)               | 0.3     |
| Hematologic malignancy, n (%)   | 10 (20.8%)                | 7 (33.3%)                | 0.27    |
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| Pitt bacteriaemia score, median (interquartile range) | 0 (0.0) | 1 (0.4) | <0.01 |
| No antibiotics used within 30 days of culture, n (%) | 15 (31.3%) | 1 (4.8%) | 0.03 |
| Central line associated bloodstream infection, n (%) | 41 (85.4%) | 14 (66.7%) | 0.08 |
| Length of stay, median (interquartile range) | 13.5 (5.75-49.75) | 40 (30-89) | <0.01 |