antibiotic susceptibilities for 79 testable isolates. VGS susceptibilities to levofloxacin, penicillin, and ceftriaxone were 50%, 45%, and 47%, respectively. 

**Conclusion:** VGS are common pathogens in FN patients. Prior fluoroquinolone prophylaxis use may be a risk factor. VGS BSI was not associated with increased critical illness compared with non-VGS. Finally, assuming ceftriaxone susceptibility confers that of cefepime, >90% of VGS are susceptible to empiric FN cefepime regimens.

**Figure 1:** Susceptible VGS Isolates Among 79 Tested

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

2687. Extended Infusions of Piperacillin/Tazobactam vs. Cefepime for Empiric Treatment of Neutropenic Fever

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**Session:** 275. Transplant ID: Malignancy and Neutropenia Saturday, October 5, 2019: 12:15 PM

**Background:** In neutropenic patients, a fever may be the only indication of a severe underlying infection. According to the National Comprehensive Cancer Network (NCCN) guidelines, for high-risk patients, monotherapy with an anti-psudomonal ß-lactam agent should be initiated. NCCN states emerging data may support extended or continuous infusions of ß-lactam therapies; however, preference is not given for cefepime or piperacillin/tazobactam. The objective of this study was to compare the outcomes of extended infusions of piperacillin/tazobactam vs. cefepime for the empiric treatment of neutropic fever.

**Methods:** This retrospective, single-center cohort study included patients ≥18 years with an absolute neutrophil count (ANC) less than 500 cells/mm3, single oral temperature measurement ≥38.3°C or ≥38°C sustained over 1 hour period and admitted to a bone marrow transplant unit. Patients received extended infusion piperacillin/tazobactam or cefepime as initial antibiotic therapy for at least 48 hours between January 1, 2015 and September 1, 2018. The primary outcome was time to defervescence in hours. Secondary outcomes included time to defervescence and no aceterminophen use within 8 hours, defervescence by 72 hours, hospital length of stay, clinical failure, in-hospital mortality, and acute kidney injury.

**Results:** 73 patients were included in this study (36 received piperacillin/tazobactam and 37 received cefepime). The primary outcome of median time to defervescence was 31.8 hours in the piperacillin/tazobactam group and 25 hours in the cefepime group (P = 0.26). Secondary outcomes in the piperacillin/tazobactam group compared with cefepime, respectively included median time to defervescence and no aceterminophen use: 43 vs. 35 hours (P = 0.16), defervescence by 72 hours: 66.7% vs. 91.8% (P = 0.01), median hospital length of stay 28 vs. 22 days (P = 0.04), clinical failure 22.2% vs. 24.3% (P = 0.83), in-hospital mortality 8.3% vs. 2.8% (P = 0.36), rate of acute kidney injury: 50% vs. 24.3% (P = 0.02).

**Conclusion:** These findings suggest there is no difference in time to defervescence between extended infusions of piperacillin/tazobactam compared with extended infusions of cefepime for the empiric treatment of neutropenic fever.

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

2688. The Clinical Impact of Early De-escalation of Broad-Spectrum Antibiotics in Acute Myeloid Leukemia Patients with Febrile Neutropenia

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**Session:** 275. Transplant ID: Malignancy and Neutropenia Saturday, October 5, 2019: 12:15 PM

**Background:** In patients with febrile neutropenia (FN) the initiation of broad-spectrum antibiotics (BSA), an anti-pseudomonal agent +/- vancomycin, is recommended by national guidelines. BSA should be continued until absolute neutrophil count (ANC) recovery (ANC > 500 cells/mm3). With increasing antimicrobial resistance, clinicians are reassessing the need to continue BSA until count recovery; new data are emerging that patients may be able to have their BSA de-escalated if stable and afebrile. At our institution, some patients are de-escalated from BSA to a fluoroquinolone before ANC recovery and others are continued on BSA. The purpose of this study was to evaluate the efficacy and safety of early de-escalation compared with the standard of care.

**Methods:** We retrospectively reviewed acute myeloid leukemia patients receiving induction chemotherapy who developed FN while at Yale New Haven Hospital from March 2013 to August 2018. Patients were excluded if they developed a culture documented infection, received incomplete or multiple induction chemotherapy treatments, or died from underlying disease during hospitalization. The primary outcome was recurrent fever during admission and secondary outcomes included incidence of breakthrough infections (BI), duration of hospital stay, early discharge (discharge before ANC recovery), duration of BSA, and readmission within 7 days of discharge.

**Results:** A total of 210 patients were evaluated and 91 patients were included (de-escalation, n = 45; BSA, n = 46). Baseline characteristics are noted in Table 1. There was no statistical difference in rate of recurrent fever in patients who were de-escalated from BSA compared with those that were continued (P = 0.05). De-escalated patients had a shorter duration of BSA therapy (P < 0.05), earlier discharge (P = 0.05) and no difference in readmission rates (P = 0.39) (Table 2). There was no difference in rate of BI between both groups and all BI were bacteremias. (Table 3) No patients who experienced a BI died from infection.

**Conclusion:** The results of this study revealed no difference in the primary outcome of recurrent fever between the BSA and de-escalation groups. De-escalation led to a reduced duration of BSA and facilitated earlier discharge without increasing readmission rates and BI.

**Table 1**

| Baseline Characteristics | De-escalation (n=45) | BSA (n=46) | p value |
|--------------------------|---------------------|------------|--------|
| Age (median range)       | 59 (18-86)          | 61 (21-77) |        |
| Male/ Female             | 23/22               | 24/22      |        |
| History of MDS, n (%)    | 10/22               | 12/28      |        |
| Induction therapy        |                     |            |        |
| >50%                     | 26 (62%)            | 20 (43%)   |        |
| VAP, n (%)               | 9 (20%)             | 11 (24%)   |        |
| Other n (%)              | 9 (20%)             | 11 (24%)   |        |

**Table 3**

| Breakthrough Organisms   | De-escalation (n=58) | BSA (n=56) | p value |
|--------------------------|----------------------|------------|--------|
| P. aeruginosa             | 1                    | 1          |        |
| L. monocytogenes          | 3                    | 1          |        |
| N. meningitidis           | 2                    | 1          |        |
| S. maltophilia            | 0                    | 0          |        |
| S. aureus                 | 0                    | 0          |        |
| P. falciparum             | 0                    | 0          |        |

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2689. Stenotrophomonas maltophilia, The Hidden Threat Among Pediatric Cancer Patients

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**Background:** Stenotrophomonas maltophilia is an emerging nosocomial pathogen in immunocompromised patients. Although S. maltophilia exhibits limited pathogenicity in immunocompetent hosts, it has been shown to cause fatal infections in patients with malignancies. The objective of this study to analyze the clinical characteristics, susceptibility pattern, and treatment outcome of S. maltophilia among pediatric cancer patients.

**Methods:** Retrospective analysis including all pediatric cancer patients treated at children cancer hospital Egypt (CCHE) with S. maltophilia bloodstream infection from June 2013 till June 2018.

**Results:** 281 isolates among 135 pediatric cancer patients. Most are hematological malignancies 67(50%), solid tumors 55 (40%) and post-transplant 13(10%). Most common hematological malignancies were acute lymphoblastic leukemia 34 patients (25%) while brain tumor was the most common solid tumors 20 patients (15%). The spectrum of infections includes bacteremia in 61 patients (45%) catheter-related in 34 patients (25%), pneumonia in 22 (16%), skin and soft tissue infection in 11(8%) meningitis in 5 (3%) and disseminated infections with multiorgan involvement in 4(3%) patients. 46 patients (34%) was admitted in intensive care unit (ICU), 67 inpatient (50%), 11 (8%) stem cell transplant unit and 11 patient (8%) from emergency and outpatient department. The isolates revealed 80% susceptibility to Trimethoprim-Sulfamethoxazole (TMP-SMX), 77% to ciprofloxacin, 50% to cefepime and ceftriaxime, 63% to amikacin, 48% to piperacillin–tazobactam, 93% to colistin, 97% to tigecycline. Day 30 mortality (Crude mortality rate) 33 patients (25%) while S. maltophilia attributable mortality (within 7 days of culture isolation) was 17 patients (13%). Patients with pneumonia, (TMP-SMX) resistance and ICU admission were associated with a significant risk of mortality.
Conclusion: Stenotrophomonas bloodstream is a serious pathogen and hidden threat among pediatric cancer patients associated with high mortality rate.

Disclosures. All authors: No reported disclosures.

2690. Infectious Complications in Adult Leukemic Patients with Prolonged Neutropenia Undergoing Induction Chemotherapy

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Session: 275. Transplant ID: Malignancy and Neutropenia
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Background: Induction chemotherapy in patients with the diagnosis of acute leukemia is associated with a high incidence of infectious complications. While prior studies provide information regarding infectious complications in this patient population, more research is needed to evaluate infection complications in a subgroup of leukemic patients with prolonged neutropenia who often require repeat induction chemotherapy.

Methods: This was a retrospective analysis of 61 patients ages 18–85, between January 1, 2010 and March 14, 2018 who were diagnosed and being treated for acute leukemia. All selected patients experienced severe neutropenia (defined as absolute neutrophil count <500/μL) for ≥7 days. 33 patients underwent their first induction chemotherapy while 28 patients underwent repeat induction chemotherapy. Patient characteristics and infectious complications were examined. Analysis was performed to further study blood stream infections in this patient population.

Results: Sixty-one patients, mean age of 55 ± 17, were included in this study. Acute myelogenous leukemia was the most common diagnosis (n = 47, 77%). The average duration of neutropenia in single vs multiple induction group was 40 vs. 47.2 days (P = 0.38), respectively. 198 culture-proven infections were identified. Overall, bloodstream infections were the most common site (n = 78, 39.4%), followed by respiratory tract infections (n = 39, 19.7%). Gram-positive organisms were the leading etiology of bacteremias (n = 50, 64%). Bacteremia episodes were more common in the patients undergoing multiple induction chemotherapy comparing to a single treatment (45 vs. 33 episodes). Patients undergoing multiple induction chemotherapy experienced a higher rate of Gram-negative blood stream infection episodes comparing to a single induction group (n = 18/78, 23.1% vs. n = 10/78, 12.8%).

Conclusion: Overall, bacteremia was the most common infection in this patient population, followed by respiratory tract infections. Gram-positive pathogens were the most common etiology of bacteremia when all patients were analyzed. However, in the subset of patients undergoing multiple induction chemotherapy, Gram-negative pathogens were the leading cause of the blood-stream infections.

Disclosures. All authors: No reported disclosures.

2691. Comparison of Incidence and Mortality of Kaposi's Sarcoma Amongst Solid-Organ Transplant Recipients

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Session: 275. Transplant ID: Malignancy and Neutropenia
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Background: Kaposi's sarcoma (KS) is a lymphatic endothelium-derived tumor caused by Human Herpes Virus 8 (HHV-8). Organ transplant recipients are at increased risk of this malignancy due to use of immunosuppressive therapy. In this

![Table 1. Patient Characteristics](image)

| Characteristic | Number (n) | Percent (%) |
|---------------|------------|-------------|
| Age (years) mean ± SD | 55 ± 17 |
| Gender | Male | 34 | 56% |
| | Female | 27 | 44% |
| | Total | 61 |
| Induction | Single | 33 | 54% |
| | Multiple | 28 | 46% |
| Disease | Acute Myeloid Leukemia | 47 | 77% |
| | Acute Lymphocytic Leukemia | 8 | 13% |
| | Myelodysplastic Syndrome | 2 | 3% |
| | Myeloid Sarcoma | 2 | 3% |
| | Chronic Lymphocytic Leukemia | 1 | 2% |
| | Chronic Myelomonocytic Leukemia | 1 | 2% |

Figure 1. Comparison of infectious complications in single induction versus multiple induction chemotherapy groups

![Infectious Complications in Single vs Multiple Induction Therapy](image)

![Table 2. Pathogens of bacteremia isolated in patients with bacteremia in single induction versus multiple induction groups](image)

| Pathogens of bacteremia | Single Induction Group (n) | Repeat Induction Group (n) |
|-------------------------|----------------------------|---------------------------|
| Gram negative pathogens | 10 | 18 |
| Escherichia coli | 3 | 3 |
| Klebsiella spp. | 0 | 2 |
| Morganella morgani | 1 | 1 |
| Enterobacter cloacae | 2 | 3 |
| Proteus mirabilis | 0 | 1 |
| Pseudomonas aeruginosa | 0 | 5 |
| Acinetobacter baumannii | 2 | 2 |
| Stenotrophomonas maltophilia | 1 | 1 |
| Serratia marcescens | 0 | 1 |
| Gram positive pathogens | 23 | 77 |
| Staphylococcus aureus | 9 | 4 |
| Granulicatella adiacens | 1 | 0 |
| Rothia spp | 0 | 1 |
| Enterococcus faecalis | 2 | 1 |
| VE1 | 2 | 1 |
| Enterococcus faecalis | 0 | 3 |
| Staphylococcus epidermidis | 3 | 4 |
| MSSA | 1 | 1 |
| MRSA | 2 | 3 |
| Coagulase-negative Staphylococci | 12 | 10 |
| Staphylococcus hominis | 8 | 9 |
| Staphylococcus haemolyticus | 2 | 0 |
| Diphtheroids | 1 | 1 |
| Other | 0 | 4 |
| Streptomyces spp | 1 | 1 |
| Actinobacillus spp | 0 | 1 |
| Micrococcus spp | 0 | 1 |
| Brevibacterium spp | 0 | 1 |

Figure 2. Comparison of selected bacterial pathogens isolated in single versus multiple induction therapy groups

Disclosures. All authors: No reported disclosures.

2691. Comparison of Incidence and Mortality of Kaposi’s Sarcoma Amongst Solid-Organ Transplant Recipients

Padma Priya Gummadi, MD3; Sarah Aurit, MPH2; Christopher J. Destache, PharmD3; Ryan Walters, PhD2; Elizabeth K. George, MD, MPH4; Renuga Vivekanandan, MD5; Mansaa Velagapudi, MBBS6; Creighton University Medical Center, Omaha, Nebraska; School of Medicine, Creighton University, Omaha, Nebraska; Creighton University School of Pharmacy and Allied Health Professions, Omaha, Nebraska; Creighton University, Omaha, Nebraska; CHI Health Creighton University Medical Center - Bergan Mercy, Omaha, Nebraska

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