Background. Treatment of invasive fungal infections with amphotericin B is a concern in kidney transplant patients due to fear of allograft loss. Relevance to use amphotericin B may lead to suboptimal therapy and poor treatment outcomes. The risk of amphotericin B-related nephrotoxicity and allograft dysfunction has not been studied in kidney transplant patients. Our aim was to study the association between amphotericin B-related acute kidney injury (AKI) as defined by the Acute Kidney Injury Network classification, allograft loss and patient mortality in kidney transplant recipients.

Methods. We used SPSS to conduct a descriptive analysis of a retrospective cohort of 30 adult kidney transplant recipients who were admitted to Virginia Commonwealth University Medical Center and received treatment with amphotericin B from 2005 to 2015.

Results. The median age in our cohort was 57.40% were female, 60% were male, 60% had received a kidney transplant from a deceased donor; 13.3% from a living related donor; 13.3% from a living unrelated donor; and 13.3% had received a combined kidney–pancreas transplant. 63.3% of patients had received liposomal amphotericin B; 33.3% had received lipid–complex amphotericin B; 3.3% had received conventional amphotericin B. We found an association between cumulative amphotericin B doses above 5,000 mg and AKI, whereby 64.7% of patients exposed to less than 5,000 mg of amphotericin B developed AKI and 100% of patients exposed to more than 5,000 mg of amphotericin B developed AKI (P = 0.017). We did not find an association between cumulative amphotericin B doses above 5,000 mg and AKI, where 64.7% of patients exposed to less than 5,000 mg of amphotericin B developed AKI and 100% of patients exposed to more than 5,000 mg of amphotericin B developed AKI (P = 0.436 and 0.288, respectively). We also did not find an association between such doses of amphotericin B and mortality at 30 and 90 days (P = 0.869 and 0.193, respectively).

Conclusions. In the first descriptive analysis of a retrospective cohort of kidney transplant patients exposed to amphotericin B, our results suggest that the risk of nephrotoxicity may be significantly increased when a cumulative dose of 5,000 milligrams is exceeded. Our results also suggest that amphotericin B doses associated with nephrotoxicity in kidney transplant patients may not have an effect on allograft survival and patient mortality.

Disclosures. All authors: No reported disclosures.

1139. Novel Formulation SUBA-Itraconazole Prophylaxis in Patients With Hematological Malignancy or Undergoing Allogeneic Stem Cell Transplantation: Follow-up Survival Data 

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Background. Despite the advantageous spectrum of activity of itraconazole, it is rarely used as a prophylactic agent due to limited bioavailability and intolerance of the compound formulation. After the development of a novel formulation SUBA–itraconazole (SUPER BioAvailability), we undertook a study to assess therapeutic levels with less interpatient variability when compared with conventional liquid itraconazole.

Results. We undertook a study to assess therapeutic levels with less interpatient variability when compared with conventional liquid itraconazole. It was associated with more rapid attainment of therapeutic levels with less interpatient variability when compared with conventional liquid itraconazole. All were missense mutations within the functional zinc-finger domains, including one resulting in an R398W amino acid change, one of the spectrum of germline mutations known to cause the primary immunodeficiency MonoMAC. Patients with GATA2 mutations in our cohort were ages 35–68 and variant allele fraction ranged from 16.3% to 49.7%, raising the possibility that both inherited and acquired GATA2 dysfunction could incur a similar infectious risk. Conclusion. Mutations in GATA2, a gene associated with MonoMAC syndrome, were identified among patients with myeloid malignancy who developed IA. These data suggest that personalized genetic analyses of patients with underlying hematologic malignancy may also be useful for assessment of infectious risk.

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1141. Microbial Assessment of Healthcare-Associated Pathogens on Various Environmental Sites in Patient Rooms After Terminal Room Disinfection 

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Background. Hospital room environmental surfaces can be contaminated with healthcare-associated pathogens even if terminal room cleaning/disinfection is implemented. We examined the microbiological burden on hospital room environmental sites after standard or enhanced terminal room disinfection. Results. A total of 29 patients (29 SUBA–itraconazole and 30 liquid–itraconza- hole were assessed. Therapeutic concentrations were achieved significantly more quickly in the SUBA–itraconazole group; median of 6 days vs. 14 (P < 0.0001). At day 10, therapeutic concentrations were achieved in 69% of the SUBA–itraconazole group vs. 21% (P < 0.0001). The mean trough serum concentrations at steady state of SUBA–itraconazole were significantly higher, with less interpatient variability (1,577 ng/mL, CV 35%) vs. (1,218 ng/mL, CV 60%) (P < 0.001). There were 2 (7.5%) treatment failures in the SUBA–itraconazole group, both due to cessation of therapy for mucositis, compared with 7 (23.3%) treatment failures in the liquid–itracona- zole group, due to subtherapeutic levels (five), mucositis (one), and gastrointestinal intolerance (one) (P = 0.096). There was one confirmed IFI in the SUBA–itracona- zole treatment failure group defined by a blood culture that yielded yeast; however, this was not the causative for mucositis. No other probable possible IFIs were observed. After 1 year postallogeneic stem cell transplant in the SUBA–itraconazole group, there were two deaths (10%) due to disease progression and no further IFIs were reported. Conclusion. The use of the SUBA–itraconazole formulation was a safe and effective prophylactic agent. It was associated with more rapid attainment of therapeutic levels with less interpatient variability when compared with conventional liquid itraconazole.

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1140. GATA2 Mutations Are Frequently Identified Among Patients With Myeloid Malignancies Who Develop Invasive Aspergillosis

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Background. Patients with myeloid malignancies are at risk of invasive aspergillosis (IA), a cause of significant morbidity and mortality. Identification of patients at higher risk for IA may help optimize prophylactic or preemptive treatment decisions. Molecular genetic testing used to risk-stratify and guide therapy for hematologic malignancies may also have applicability toward predicting infectious outcomes. The aim of this study was to identify mutations that may increase risk for IA among patients with myeloid malignancies.

Methods. We identified patients cared for at Dana-Farber/Brigham and Women’s Cancer Center between March 1, 2015 and January 31, 2018 who were diagnosed with probable or proven IA during the treatment of myeloid malignancies including acute myeloid leukemia (AML) or myelodysplastic syndrome (MDS). We reviewed pathogenic mutations detected by the Rapid Heme Panel (RHP), a clinical targeted next-generation sequencing panel of 95 recurrently mutated genes in hematologic malignancies.

Results. Twenty-four patients with myeloid malignancy (AML 20, MDS 4) were diagnosed with IA, 20 of whom (AML 17, MDS 3) had undergone genetic testing with the RHP at the time of their cancer diagnosis. We found that three of 20 patients (15%) had a pathogenic mutation in GATA2. All were missense mutations within the functional zinc-finger domains, including one resulting in an R398W amino acid change, one of the spectrum of germline mutations known to cause the primary immunodeficiency MonoMAC. Patients with GATA2 mutations in our cohort were ages 35–68 and variant allele fraction ranged from 16.3% to 49.7%, raising the possibility that both inherited and acquired GATA2 dysfunction could incur a similar infectious risk.

Conclusion. Mutations in GATA2, a gene associated with MonoMAC syndrome, were identified among patients with myeloid malignancy who developed IA. These data suggest that personalized genetic analyses of patients with underlying hematologic malignancy may also be useful for assessment of infectious risk.

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