Valganciclovir (VGC) prophylaxis (Px) has lessened CMV infection among high-risk (CMV D+/R-) KT recipients (KTRs), but VGC can induce neutropenia. We quantifi ed the burden of CMV infection among CMV D+/R- KTRs and healthcare resources required to manage these patients (pts).

Methods. Retrospective study of pts undergoing KT between Jan 2014-Dec 2018. Study and control groups (gps) were CMV D+/R- and R+ KTRs, respectively. Standard post-KT immunosuppression was tacrolimus and mycophenolate mofetil (MMF). D+/R- and R+ KTRs received VGC Px (900 mg/day) for 6 and 3 months (mos), respectively.

Results. Clinical characteristics did not differ between D+/R- (n=131) and R+ (n=140) pts. Median VGC Px duration was longer for D+/R- (183 vs 104 days, p<.01). Within the first 6 mos post KT, a higher proportion of D+/R- KTRs received ≥1-course of granulocyte-stimulating factor (G-CSF) (15% vs 6%, p=.02). VGC Px was stopped prematurely/intermittently in 20% and 10% of D+/R- and R+, respectively, due to neutropenia (p=.02); corresponding data for stopping MMF for ≥1 mos were 32% and 21% (p=.05), 50% of D+/R- pts received <3 mos Px. Leukopenia prompted hospitalization in 3% of D+/R- vs 0% of R+ pts (p=.05). CMV infections did not differ between gps (7% vs 6%, p=.80); however, VGC-resistant CMV was higher in D+/R- (13% vs 6%, p=.09). There was a trend toward higher rejection for D+/R- KTRs (13% vs 6%, p=.09).

Conclusion. Universal VGC Px in D+/R- KTR remains challenging and requires significant resources for monitoring and intervention for neutropenia, including MD involvement and ID referral. Intermittent/premature stop of VGC may have led to VGC-resistant CMV, and stop of MMF may have led to a trend of higher cellular rejection at 1 yr. There is critical need for new CMV agents with a better safety profile.

Disclosures. Amit D. Raval, PhD, Merck and Co., Inc. (Employee) Yuexin Tang, PhD, JnJ (Other Financial or Material Support, Spouse's employment) Merck & Co., Inc. (Employee, Shareholder) Cornelius J. Clancy, MD, Merck (Grant/Research Support) Minh-Hong Nguyen, MD. Merck (Grant/ Research Support)

1380. Real-world Effectiveness and Complications of Valganciclovir (VGC) Prophylaxis for Kidney Transplant (KT) Recipients at High Risk for Cytomegalovirus (CMV) infection (CMV Donor (D)+/Recipient (R)-) Carolline G. Roumpa, n/a,1; Josh Kohl, RN,2; Kaley L. Hughes, MPH,1; Amit D. Raval, PhD,2; Yuexin Tang, PhD,2; Cornelius J. Clancy, MD,3; Minh-Hong Nguyen, MD,3; 1University of Pittsburgh, Pittsburgh, Pennsylvania; 2University of Cincinnati Medical Center, Cincinnati, Pennsylvania; 3Merck and Co., Inc., Rahway, New Jersey; *Merck Co. and Co., Inc., North wales, Pennsylvania

Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. CMV infection is common post-kidney transplant (KT). Valganciclovir (VGC) prophylaxis (Px) has lessened CMV infection among high-risk (CMV D+/R-) KT recipients (KTRs), but VGC can induce neutropenia. We quantified the burden of CMV infection among CMV D+/R-KTRs and healthcare resources required to manage these patients (pts).

Methods. Retrospective study of pts undergoing KT between Jan 2014-Dec 2018. Study and control groups (gps) were CMV D+/R- and R+ KTRs, respectively. Standard post-KT immunosuppression was tacrolimus and mycophenolate mofetil (MMF). D+/R- and R+ KTRs received VGC Px (900 mg/day) for 6 and 3 months (mos), respectively.

Results. Clinical characteristics did not differ between D+/R- (n=131) and R+ (n=140) pts. Median VGC Px duration was longer for D+/R- (183 vs 104 days, p<.01). Within the first 6 mos post KT, a higher proportion of D+/R- KTRs received ≥1-course of granulocyte-stimulating factor (G-CSF) (15% vs 6%, p=.02). VGC Px was stopped prematurely/intermittently in 20% and 10% of D+/R- and R+, respectively, due to neutropenia (p=.02); corresponding data for stopping MMF for ≥1 mos were 32% and 21% (p=.05), 50% of D+/R- pts received <3 mos Px. Leukopenia prompted hospitalization in 3% of D+/R- vs 0% of R+ pts (p=.05). CMV infections did not differ between gps (7% vs 6%, p=.80); however, VGC-resistant CMV was higher in D+/R- (13% vs 6%, p=.09). There was a trend toward higher rejection for D+/R- KTRs (13% vs 6%, p=.09).

Conclusion. Universal VGC Px in D+/R- KTR remains challenging and requires significant resources for monitoring and intervention for neutropenia, including MD involvement and ID referral. Intermittent/premature stop of VGC may have led to VGC-resistant CMV, and stop of MMF may have led to a trend of higher cellular rejection at 1 yr. There is critical need for new CMV agents with a better safety profile.

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1381. Do Gut Microbiome Profiles Correlate with Hospital Length of Stay During Hematopoietic Stem Cell Transplantation? Angelico Mendy, MD;2 Kitty Tierney, RN;1 Tara Mink, RN;1 Walaa Hussein, PhD1; Peter Monaco, BA1; Claire Weinstein, BA1; Prathyusha Kandalu, BS1; Racheal Wilkinson, BS, MLS2; Kayva Patel, MD1; Senu Apewokin, MD1; University of Cincinnati, Cincinnati, Ohio; 1The Jewish Hospital, Cincinnati, Ohio; 3Emory University, Los Angeles, California; 2University of Cincinnati Medical Center, Cincinnati, Ohio

Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. Length of stay is not only an indicator of how successful a hospitalized patient’s treatment and recovery is, but is also an indicator of fiscal costs to the hospital. Hematopoietic stem cell transplants (HSCT) patients typically experience extended hospital admissions that can vary significantly patient to patient with hospital discharge dependent upon a recovered white blood cell count. Recent literature suggests a gut microbial influence on hematopoiesis. We sought to explore potential associations between gut microbial diversity and the length of stay in patients undergoing HSCT in the inpatient setting.

Methods. Within two healthcare systems, we identified patients who would receive conditioning chemotherapy and subsequent HSCT in the inpatient setting. Pre-chemotherapy stool was collected, sequenced with shotgun metagenomics, and analyzed for gut microbial diversity using inverse-Simpson index. The length of admission or length of stay during their transplant process was recorded. We assessed whether there was an association with gut microbial diversity and length of stay.

Results. 24 patients we evaluated for diversity and length of stay. There was no significant correlation between age or gender and length of stay. Significant difference in length of stay was seen between allogenic vs autogenic transplants (p value ≤0.01). Within the 24 patients, lengths of stay ranged from 8 to 36 days with a mean average of 20.9 days. Gut diversity ranged from 1.8 to 23.9. An overall negative association between length of stay and diversity was seen, though this was determined not statistically significant (p value 0.09).

Length of Stay correlation with pre-chemotherapy Gut Microbiome diversity
1382. A Prospective Epidemiological Study BK Polyomavirus DNAuria and DNAemia within the First Year after Kidney Transplantation

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Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. Screening and early detection for the preceding BK polyomavirus (BKV) DNAuria and DNAemia to prevent the occurrence of BK polyomavirus BKPyV-associated nephropathy (BKPyVAN) among kidney transplant (KT) recipients has not been universally utilized and never assessed in a setting where the resource is limited. Therefore, we aimed to investigate this entity's incidence, risk factors, and outcome with this intervention at our institution.

Methods. A prospective study of KT recipients at a tertiary care transplant center in Bangkok, Thailand, was conducted between January 2019 and March 2020. All patients underwent preemptive monitoring of urine and plasma BKV DNA load, measured by quantitative real-time PCR at 1, 2, 3, 6, 9, and 12 months post-KT. Low- and high-level BKV DNAuria was defined as urine BKV DNA load of < and > 7 log10 copies/mL, respectively. The incidences were calculated by Kaplan-Meier analysis. The chi-square or student's T-test compared clinical characteristics between those with and without high-level BKV DNAuria as appropriate. Risk factors of high-level BKV DNAuria were analyzed using Cox proportional hazard model.

Results. Among 99 evaluable KT recipients, a mean (SD) age was 42 (11) years, 64.6% were male, and 69.6% received an induction immunosuppressive therapy. Within 12 months post-KT, the incidences of low-level BKV DNAuria, high-level BKV DNAemia, low-level BKV DNAemia, and high-level BKV DNAemia were 22.6%, 13.14%, 9.49%, and 5.11%, respectively. High panel reactive antibody (PRA) was associated with high-level BKV DNAuria at 6 and 12 months. Routine preemptive monitoring of urine and plasma BKV DNA load for 1 year post-KT did not show any association with BKPyVAN.

Disclosures. All Authors: No reported disclosures.

Table 1. Demographics and risk factors for subjects with equivocal or positive Strongyloides IgG

| Country of origin | n (%) |
|-------------------|-------|
| United States     | 19 (79.2) |
| Mexico            | 1 (4.2) |
| Unknown           | 4 (16.7) |
| Military service  | 4 (16.7)* |
| Overseas travel   | 6 (25.0) |
| County of residence |       |
| Appalachian region | 4 (16.7) |

*never deployed

Conclusion. Universal screening of adult heart transplant candidates at SCs only transplant center detected a BKPyV seroprevalence rate of 11.4%. The majority of subjects with equivocal/positive Strongyloides IgG were born in the US and did not have other known risk factors (residence in the Appalachian region of SC, military service, overseas travel). These data suggest a high level of endemicity of strongyloidiasis in SC.

Disclosures. All Authors: No reported disclosures.