Conclusion: Antibiotic prophylaxis was frequently used after KP with TMP-SMX being the most common antibiotic used. Patients in the no-prophylaxis group had significantly fewer cholangitis episodes compared to those receiving antibiotic prophylaxis. Prophylactic antibiotics did not have an impact on time to LTV. The study suggests that antibiotic prophylaxis is not helpful in decreasing the frequency of cholangitis episodes after KP and may increase the risk for infections with resistant bacteria. Larger prospective randomized control studies are recommended.

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850. Refractory and Resistant CMV Infections in Hematopoietic Cell Transplant Recipients in the Letermovir Primary Prophylaxis Era
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Session: P-22. Care Strategies for Transplant Patients
Background: CMV reactivation is one of the most common infections after allogeneic hematopoietic cell transplantation (allo-HCT) and carries considerable morbidity and mortality. Primary prophylaxis with letermovir demonstrated in clinical trials reduction of the incidence of clinically significant CMV infection (CS-CMVi). This study aims at exploring the effect of letermovir primary prophylaxis on the occurrence of refractory or resistant CMV infections.

Methods: This is a single-center, retrospective cohort study of 557 consecutive allo-HCT CMV-seropositive recipients cared for between March 2016 and December 2018. Baseline demographics, transplant characteristics, CMV infections, treatment and mortality data were collected from the electronic medical record (Table 1). CMV outcomes were defined according to the standardized definitions for clinical trials. Data was analyzed on IBM® SPSS version 24 using a logistic regression model for multivariate analysis.

Results: Out of 557 patients identified, 123 received letermovir for primary prophylaxis during the first 100 days post-HCT and 414 did not. In a multivariate analysis.

Data was analyzed on IBM® SPSS version 24 using a logistic regression model for outcomes were defined according to the standardized definitions for clinical trials. There were trends toward lower all-cause mortality at day 100 in the letermovir group. There were no resistant CMV and no CMV-related mortality in the letermovir group.

Conclusion: Our study showed a strong association between primary prophylaxis with letermovir and reduction in refractory or resistant CMV infections and CMV disease in allo-HCT recipients.

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858. Risks versus Benefits of Metronidazole Use for the Prevention of Acute GVHD in Allogeneic Stem Cell Transplant Recipients
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Session: P-22. Care Strategies for Transplant Patients
Background: Currently, acute graft versus host disease (aGVHD) prophylaxis in hematopoietic stem cell transplants (HSCT) varies amongst different institutions. There is a lack of data supporting the use of metronidazole for aGVHD prophylaxis in HSCT. To further investigate if metronidazole has an effect on aGVHD, allogeneic HSCT recipients will be examined to determine if metronidazole post-transplantation decreases the incidence of aGVHD and the risks of adverse drug events (ADE) associated with this practice.

Methods: This retrospective study included 120 adult patients who received an allogeneic HSCT between January 1, 2010 to December 31, 2013. The primary endpoint is the incidence of aGVHD, defined as within 100 days post-transplant. Secondary endpoints include the rate of metronidazole discontinuation due to intolerance, frequency of metronidazole-related adverse events, incidence of Clostridioides difficile infection, mortality, and overall survival.

Results: One hundred six patients met the inclusion criteria. The majority of patients received metronidazole (88 vs. 18). Less patients in the metronidazole arm developed aGVHD (51.1% vs 61.1%, p=0.44). In the subcategories of liver, skin, and gastrointestinal aGVHD, patients who received metronidazole developed less gastrointestinal aGVHD (26.1% vs 50.0%, p=0.045). Gastrointestinal ADEs were the most common metronidazole-related ADEs (19.3%, Table 1). There were no significant differences in the incidence of C. difficile infection, mortality, and overall survival between the two arms (Table 2).

Table 1 - Adverse Drug Events and Discontinuation of Therapy

| ADE Event | Metronidazole (n = 88) | Placebo (n = 88) |
|-----------|------------------------|-----------------|
| Headache  | 22 (25.0%)             | 10 (0%)         |
| Gastrointestinal | 17 (19.3%)          | 16 (18.2%)      |
| Metallic taste | 3 (3.4%)             | 0 (0%)          |
| Central neurotoxicity | 0 (0%)         | 0 (0%)          |
| Neutropathy | 2 (2.3%)              | 1 (1.2%)        |
| Infection  | 1 (1.1%)               | 0 (0%)          |
| Other adverse effect | 3 (3.4%)           | 0 (0%)          |
| Metronidazole discontinuation due to intolerance | 20 (22.7%) | 16 (18.2%) |
| Metronidazole duration, days, median (range) | 32.5 (1-50) | 33.2 (1-50) |

Table 2 - Additional Secondary Outcomes

| ADE Event | No metronidazole (n = 18) | Metronidazole (n = 88) | P-value |
|-----------|--------------------------|------------------------|---------|
| C. difficile infection | 1 (5.6%) | 7 (7.3%) | 1.00 |
| Mortality - GVHD-related | 0.90 |
| GVHD-related | 2 (11.8%) | 15 (18.2%) | -- |
| Not GVHD-related | 8 (20.0%) | 32 (38.0%) | -- |
| Unknown | 1 (5.6%) | 6 (7.0%) | 0.37 |
| Stalled alive | 1 (5.6%) | 6 (7.0%) | 0.37 |
| Overall death | 0 (0%) | 78 (82.1%) | 0.09 |
| 1 year | 12 (18.8%) | 84 (96.4%) | 0.60 |

Conclusion: Despite a reduction in gastrointestinal aGVHD in the metronidazole arm, approximately one in four patients experienced an ADE to the medication, likely due to the prolonged use of the medication (33 days). The utilization of post-transplant cyclophosphamide for GVHD prophylaxis likely eliminates the need for metronidazole; however our findings suggest a benefit in preventing gastrointestinal aGVHD with metronidazole; albeit, caution is warranted given the high incidence of ADE associated with prolonged use.

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