future analyses, such as determination of value of services, which in turn could support the justification of HSCT pharmacy services.

Withdrawn

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Intravenous Pentamidine for Pneumocystis Carinii/Jiroveci Pneumonia (PCP) Prophylaxis
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Background: Sulfamethoxazole/trimethoprim (SMX/TMP) is the current gold standard for PCP prophylaxis in hematopoietic stem cell transplant (HSCT) patients. There are several second line options for prophylaxis but many, including intravenous (IV) pentamidine, have not been proven to be as effective or as safe as SMX/TMP in the pediatric HSCT population. There is increasing use of IV pentamidine in the pediatric HSCT population, as it is easily given once monthly, with no issues regarding compliance or vomiting. However, there are limited published data to support safety and efficacy of this approach. This study was aimed to determine the safety and efficacy of IV pentamidine in preventing PCP infection in our pediatric HSCT patients.

Methods: A retrospective chart review was conducted with IRB approval to evaluate all HSCT patients at Cincinnati Children's Hospital Medical Center (CCHMC) that received at least one dose of IV pentamidine from January 2010 to July 2013. The primary outcome, pentamidine efficacy, was evaluated through lack of breakthrough PCP infection. The secondary outcome, pentamidine safety, was evaluated by adverse events leading to pentamidine discontinuation.

Results: Total of 285 HSCT patients received at least one dose of IV pentamidine and were included in the final analyses. Median age of patients was 5 years (range: 0.2 to 32 years). Patients were on pentamidine prophylaxis for a median of 5 months (range 1-44 months). Only 1 patient developed breakthrough PCP infection while receiving IV pentamidine prophylaxis (0.35%). Two patients were diagnosed with toxoplasmosis while receiving pentamidine prophylaxis (0.7%). Twenty patients (7%) experienced an adverse event leading to discontinuation of pentamidine, with tachycardia being the most common adverse event leading to discontinuation of pentamidine. The rate of adverse effects seen with pentamidine is comparable to that seen in patients receiving SMX/TMP prophylaxis which is associated with adverse effects ranging from 3.1-59%.

Conclusion: In a three year time span only 1 patient (0.35%) receiving IV pentamidine prophylaxis had a breakthrough PCP infection. Although SMX/TMP is considered first line for PCP prophylaxis, based on the results of this study, IV pentamidine should be considered a safe and effective alternative in pediatric HSCT patients. Of note, pentamidine does not provide toxoplasmosis suppression, a consideration for children considered at high risk of reactivation.

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Hepatitis B Immune Globulin Prophylaxis of Viral Reactivation during Stem Cell Transplant
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Background: Stem cell transplant patients who are hepatitis B negative at the time of transplant and receive stem cells from a hepatitis positive donor have a higher risk of liver post-transplant complications and hepatitis viral positivity. The use of lamivudine has been documented in the literature as chemoprophylaxis for preventing viral reactivation in positive patients and also surface antigen negative patients receiving stem cell product from hepatitis positive donors. The expected duration of chemoprophylaxis with lamivudine therapy is multiple months following stem cell transplant. This is a case series of using a two dose course of hepatitis B immune globulin, without lamivudine, for the prevention of viral seroconversion in stem cell transplant recipients.

Methods: This is a single center retrospective chart review of three pediatric stem cell transplant patients who were prescribed hepatitis B immune globulin for prophylaxis of seroconversion of hepatitis B. Hepatitis B immune globulin 0.06mL per kilogram was administered as two doses, on day -1 or day 0, and repeated four weeks later. All patients received allogeneic transplantation from matched related donors, found to be positive for hepatitis B prior to stem cell harvest. Diagnoses for stem cell transplant of the patients were acute lymphoblastic leukemia, congenital myelofibrosis and cartilage hair hypoplasia. Patient age ranged from 1 to 17 years.

Results: At median of 20 months follow up (range 12-32 months), no patients were reported to have a positive hepatitis B DNA after stem cell transplant. No cases of venoocclusive disease of the liver were observed. This small case series may present an alternative, simpler prophylaxis regimen that is effective at preventing hepatitis viral transmission during stem cell transplant.

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Adverse Events during Peripheral Blood Hematopoietic Stem Cell Mobilization in Light Chain Amyloidosis Patients
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Background: High-dose chemotherapy with autologous hematopoietic stem cell transplantation (auto-HCT) can be an effective treatment for systemic light chain amyloidosis (AL). However, significant morbidity may occur in AL patients undergoing peripheral blood stem cell (PBSC) mobilization, especially if they have cardiac or renal involvement. Reported complications include fluid overload, cardiac arrhythmias, bleeding events, and infections.

Methods: We identified 101 patients with AL who underwent PBSC mobilization and collection with filgrastim at a dose of 10 mcg/kg/day between 2006 and 2013. Fifteen patients (15%) also received plerixafor at a dose of 0.16–0.24 mg/kg/day after at least 4 days of filgrastim. The primary