collected from inpatient and outpatient charts in a de-identified manner. This study was approved by the institutional review board of the University of Oklahoma Health Sciences Center. Patient comorbidity index scores were calculated within 30 days of transplant using the QxMD Hematopoietic Cell Transplantation-Specific Index (HCT-CI) calculator. Karnofsky Performance Status was determined by a physician during pre-transplant assessment. Additional pre-transplant data collected included: gender, age at transplant, date of transplant, donor type, donor source, preparative method, specific preparative regimen, disease status at the time of transplant, disease type, and insurance status. Post-transplant data collected included: survival at 100 days, 1 year, and 2 years post-transplant, cause of death, presence of graft-versus-host disease (GVHD), type of GVHD, organ affected by GVHD, and documented infections. Our results indicated that higher CMI scores were significantly associated with increased non-relapse mortality in patients undergoing myeloablative transplant preparative regimens ($P < .001$). Lower KPS scores were also significantly associated with poor survival ($P < .001$). Insurance was not significantly associated with non-relapse mortality ($P > .05$). Finally, 39% of all patient deaths were attributed to disease, 20% of patient deaths were attributed to non-relapse mortality, while 41% of patients survived.

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A Novel Intermediate Alemtuzumab Schedule Optimizes the Incidences of Mixed Chimerism and Acute GVHD in Patients with HLH and XLP Undergoing Allogeneic HCT

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Introduction: Reduced intensity conditioning (RIC) with alemtuzumab, fludarabine, and melphalan improves the hematopoietic cell transplant (HCT) outcomes of patients with hemophagocytic lymphohistiocytosis (HLH). Proximal dosing of alemtuzumab is associated with a high incidence of mixed chimerism (MC) whereas distal dosing is associated with less MC but higher incidences of acute GVHD following initial graft infusion. We hypothesized that an intermediate alemtuzumab schedule would optimize the incidences of MC and acute GVHD.

Methods: Twenty-five consecutive transplants were performed in patients with HLH or XLP using a RIC regimen with a novel *intermediate* alemtuzumab schedule of 1mg/kg beginning on day -14. The cumulative incidences of MC and acute GVHD were compared to 2 retrospective cohorts of patients with HLH and XLP treated with *distal* (n=15) or *proximal* (n=33) alemtuzumab schedules. All patients received fludarabine 150mg/M2 (1mg/kg if <10kg) divided over days -8 to -4, and melphalan 140mg/M2 (4.7mg/kg if <10kg) on day -3. Melphalan was reduced by 50% in one infant due to concern for toxicity. GVHD prophylaxis consisted of methylprednisolone and cyclosporine or tacrolimus in all but 2 patients who received methylprednisolone and MMF. Three patients additionally received methotrexate.

Results: The cumulative incidence of MC was less in the intermediate alemtuzumab cohort at 34%, versus 72% in the proximal and 40% in the distal cohorts ($P = .008$). The cumulative incidence of acute GVHD related to initial graft infusion (before MC) was 4% in the intermediate cohort and 0% in the proximal cohort ($P = .26$), versus 13% in the distal cohort ($P = .04$, proximal versus distal). There was a trend toward less *overall* acute GVHD (following graft infusion or following intervention for MC) in the intermediate cohort at 12%, versus 16% and 27% in the proximal and distal cohorts ($P = .55$).

Conclusion: This novel 14 day RIC regimen optimizes the incidences of MC and acute GVHD.

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The Use of 5-Azacitidine in Allogeneic Hematopoietic Cell Transplantation: A Single Center Experience

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Introduction: The allogeneic hematopoietic cell transplantation (alloHCT) remains the only treatment modality with known curative potential in MDS, AML and CMML. The 5-azacitidine is the first line treatment in high-risk MDS that are not suitable for intensive therapy. On the other hand, there is not enough evidence for deciding which is the best option, either 5-azacitidine or induction chemotherapy, before alloHCT. In a similar way, the 5-azacitidine exposure in post-alloHCT relapse may be an attractive alternative, even though there are not definite results yet.

Objective: Evaluate the capacity of 5-azacitidine in reducing or stabilizing the disease before alloHCT, regarding associated toxicity, and its role in post-alloHCT relapses.

Patients And Methods: We retrospectively reviewed 36 patients who underwent alloHCT for high-risk MDS, AML and CMML between October 2006 and September 2012 in our center and who received 5-azacitidine before and/or after alloHCT.

Results: 30 patients received 5-azacitidine pre-alloHCT, 22 were MDS (73%), 6 AML (22%) and 2 CMML (7%), with high-risk cytogenetic (according to IPSS-R) in one third of them. The median of cycles was 5 (1-12), using the conventional dose and schedule, and presenting usual toxicity in only 38% of cases. Two thirds of evaluable patients achieved complete remission (CR) or partial response (PR) and 26% progressed. 83% of patients underwent alloHCT in some type of response and 17% in progression. The alloHCT characteristics were: median of age of 56 (35-67), peripheral blood as source of stem cells in 93%, related donor in 62%, and reduced-intensity conditioning in most cases (83%). At day +100, 82% of patients achieved CR and 18% had progressed. The global post-alloHCT relapse rate was 33%. The 2-years overall survival (OS) and event-free survival (EFS) were 66% and 50%, respectively. At 1 year, the relapse-free survival (RFS) was 65%, without having reached the median follow-up. We did not observe any significant statistical differences in OS after taking into account the following factors: sex, diagnosis, previous lines of treatment, response to 5-azacitidine, response at alloHCT and type of donor. However, cytogenetic risk did significantly influence survival in terms of OS, EFS and RFS, the same as source of stem cells, type of conditioning regimen and response at day +100 in OS. 16 patients received 5-azacitidine after post-alloHCT relapse with a median of cycle of 3.5 (1-19), reduced dose in some cases and limited toxicity (42%). The median of days after alloHCT to the beginning of treatment was 152 (32-529). Two thirds