values >0.9 were acceptable. Precision and mean bias <15% were acceptable.

24 children (0.4-17.2 years) participated. Most patients (18) received cyclosporine and methotrexate. Mean actual dose infusion time was 121 ± 5.9 min. Mean AUC-all after the first cyclosporine dose was 2397 ± 713 h•μg/L. Sufficient data were available to validate the LSSs in 16 (3, 4 & 5-point LSSs) and 15 (6-point LSS) patients. Values of AUC predicted by all but the 5-point LSS were strongly associated with AUC-all.

The 3-point LSS (2, 6 and 8 hours) is likely suitable for determining AUC following the first cyclosporine dose given as 2-hour infusion to children undergoing HSCT. Further validation in a larger number of patients is required. The relationship between acute GVHD and cyclosporine AUC at different time periods after HSCT merits further study.

Sample times (hours after start of infusion)	Adjusted r^2	Mean bias (%; range)	Precision (%)
2, 6 and 8	0.9504	− 0.7 (−13.7 to 12.4)	6.0
2, 2.5, 6 and 8	0.9547	−2.7 (−16.6 to 7.7)	6.0
2, 2.5, 4, 6 and 8	0.8896	−4.7 (−25.6 to 0.8)	9.1
2, 2.5, 4, 6, 8 and 10	0.9062	−4.7 (−24.2 to −0.1)	8.5

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KIDNEY INJURY (KI) IN PEDIATRIC RECIPIENTS OF ALLOGENEIC STEM CELL TRANSPLANT (ALLOSCT): RISK OF KI IS GREATER WITH MYELOABLATIVE CONDITIONING (MAC) THAN WITH REDUCED INTENSITY CONDITIONING (RIC) IN FIRST MONTH FOLLOWING ALLOSCT

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Background: Pediatric alloSCT patients are at substantial risk of developing KI, which contributes to transplant-related morbidity and mortality (Holthe et al, Pediatr Nephrol., 2002).

Objective: To compare the incidence and outcomes of KI in pediatric recipients following RIC vs. MAC AlloSCT in 1st year post-AlloSCT.

Methods: Among 170 pediatric patients, we used the Schwartz equation to estimate creatinine clearance (eCCl) at ≤ 2wks pre- and 1,3,6,9 and 12 mo post-alloSCT with RIC or MAC. We categorized patients whose eCCI dropped ≥ 50% from baseline as having KI. Pts received Tacrolimus and MMF for GVHD prophylaxis (Osunkwo/Cairo et al. BBMT, 2004). Other nephrotoxic exposures included Ambisome at 3 mg/kg from day 0-100 (Roman/Cairo et al. PBC, 2008) and CMV prophylaxis with Foscarnet/Ganciclovir (Shereck/Cairo et al. PBC, 2007). Including risk factors significant at 0.1 level based on χ-square tests, we developed multivariable logistic regression models of predictors of kidney injury, and Cox models of overall survival.

Results: 76 pts (median 10;0.3-22 yrs) received RIC-alloSCT; 94 pts (median 8;0.3-22 yrs) received MA-AlloSCT. At 1 mo post alloSCT, A total of43/94 (45.7%) MAC recipients but only 13/76 (17.1%) RIC recipients had KI ($p < 0.0001$). The two groups did not differ in risk of KI at 3, 6, 9 or 12 months post-alloSCT. In univariate analysis, p-values were >0.1 for the association of KI at 1 mo with age, sex, CMV at risk status, and fungal infections. Associations with p-values ≤0.1were MAC (odds ratio {OR}-4.1, 95% CI 2.0-8.4,$p = 0.0001$), poor disease risk status (OR-1.8,95% CI 0.8-4.0, $p = 0.1$),VOD (OR-4.9, 95% CI 0.5-46.0, $p = 0.1$), and UCB (OR-1.8,95% CI 0.9-3.6, $p = 0.1$). In logistic regression, only MAC was an independent predictor of KI (OR-3.5, 95% CI 1.6-7.7, $p = 0.0001$).

In the Cox model, all-cause mortality hazard ratios (HR) were: RIC vs. MAC (HR = 0.3) $p = 0.0007$, poor vs. average risk disease status (HR = 2.2) $p = 0.002$, UCB vs. MSD and MUD (HR-2.2) $p = 0.02$, and KI vs. no KI (HR = 2.0) $p = 0.006$).

Conclusions: In the first month after alloSCT in children, MAC was strongly associated with risk of KI, and overall, MAC and KI were independent predictors of mortality. Avoiding KI in the first month post-alloSCT might improve OS.

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SINGLE VS DOUBLE DOSE PALONOSETRON FOR THE PREVENTION OF ACUTE AND DELAYED NAUSEA AND VOMITING IN PATIENTS UNDERGOING HIGH DOSE CHEMOTHERAPY AND AUTOLOGOUS STEM CELL TRANSPLANTATION

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Objectives: The vast majority of patients (pts) undergoing high dose chemotherapy (HDT) and autologous stem cell transplantation (ASCT) still experience major acute and delayed chemotherapy-induced nausea and vomiting (CINV), showing how emesis control in the ASCT setting remains sub-optimal. Palonosetron (PALO), a new 5-hydroxytryptamine receptor antagonist with long half-life and high receptor binding affinity, achieves a significant control of CINV in pts receiving moderately/highly emetogenic chemotherapy. We prospectively evaluated the efficacy of a single or double i.v. dose PALO in pts undergoing HDT and ASCT.

Methods: A total of 60 pts (M/F = 32/28), median age 45 yrs (r16-64), with diagnosis of lymphoma (29), myeloma (24), sarcoma (5), acute leukemia (1), breast cancer (1) were accrued. The first cohort (30 pts) received a single iv PALO dose (0.25 mg) plus 8 mg of dexamethasone (DMS) 30' before starting of HDT while in the second cohort (30 pts) the first dose was followed by a further PALO (0.25 mg)/DMS (8 mg) injection 48 h after HDT. The distribution of conditioning regimens (high-dose melphalan = 28, BEAM = 25, MitoMel = 6, ThioEpiCTX = 1) was comparable between the two cohorts. Acute (24 h) and delayed (120 h) CINV episodes were rated by the visual analogic scale (MASCC/MAT) while CINV impact on daily activities was self-assessed by pts (at 120 h from starting of HDT), through the Functional Living Index-Emesis (FLIE) tool.

Results: No significant differences between the two groups (single vs double PALO) emerged as to acute CINV evaluation (MAT) since 98% of pts achieved a complete response (CR = no emesis, no need for rescue therapy) with only 17 pts (28%) experiencing moderate nausea (median intensity = 5, r1-10). Double-dose PALO displayed a trend for a better control of delayed nausea which occurred in 53% vs 77% of pts ($p = 0.0581$). In addition, double PALO dosing had a highly significant impact on nausea-related modifications of daily activities. FLIE nausea score was of a median value of 55.26 (r47.5-58.9) in pts receiving two doses of PALO vs 40.92 (r35-45.2) for pts treated with the single PALO dosing ($p = 0.0009$).

Conclusion: Our results indicate that double dose PALO achieves an optimal control of acute/delayed CINV and significantly reduces the detrimental impact of nausea on daily activities in patients undergoing HDT. The impressive activity of PALO in the ASCT setting might be possibly improved by combination with NK1 receptor antagonists.

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END-OF-LIFE EXPERIENCE OF CHILDREN UNDERGOING STEM CELL TRANSPLANTATION FOR MALIGNANCY: PARENT AND PROVIDER PERSPECTIVES AND PATTERNS OF CARE

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Background: The end-of-life (EOL) experience of children who undergo stem cell transplant (SCT), intensive therapy delivered with curative intent, may differ from other children with cancer.