RESULTS

Figure 1: Outcomes by group, CR1

- For patients with AML in CR1 (n=651), OS, DFS, TRM, and relapse were not significantly different between time from diagnosis to transplant groups: short (<3.5 months [n=128]), intermediate (3.5-6 months [n=360]), and prolonged (>6 months [n=163]). There were no significant differences in OS, DFS, TRM or relapse when patients in CR1 were stratified by MRD.

Figure 2: Outcomes by group, CR2

- For CR2 patients (n=225), there was no difference in relapse or TRM between time from relapse to transplant groups: <3.5 months (n=134) and ≥3.5 months (n=91). OS and DFS were worse for CR2 patients transplanted ≥3.5 months after relapse (OS: HR 1.8, p=0.0062; DFS: HR 1.5, p=0.05). Relapse was higher for patients in CR2 with MRD positivity (HR 2.17, p=0.02).

CONCLUSIONS

- There is no advantage in DFS or OS for pediatric AML patients proceeding to allo-HCT after a short, intermediate, or prolonged time from diagnosis in CR1.

- For CR2, earlier allo-HCT was associated with improved OS and DFS.

- MRD status prior to allo-HCT did not associate with OS, DFS, TRM or relapse in CR1. MRD positivity was associated with relapse in CR2, however numbers of patients with MRD status was limited and methods of MRD testing were heterogeneous.

- Collectively, these data suggest that once remission is achieved, time to allo-HCT and MRD status in CR1 do not impact transplant outcomes, while delays in time to transplantation and persistent MRD in CR2 do impact survival.

- Further studies are needed to determine optimal number of cycles of chemotherapy and depth of remission that result in the most favorable outcomes for children with AML.

REFERENCES