

New evidence guides haploidentical donor selection for pediatric patients

WHAT?



Observational study conducted by the Center for International Blood and Marrow Transplant Research (CIBMTR)

WHY?

There's been a lack of data to guide the prioritization of haploidentical (half-matched) related donors for pediatric transplant patients.

WHEN?

Patients transplanted between **2013** and **2019**

WHO?

1,069 pediatric patients who received a haploidentical related donor transplant for any disease reported to the CIBMTR

- 58% had cancer
- 67% received myeloablative (full intensity) conditioning
- 36% received post-transplant cyclophosphamide (PTCy) based graft vs host disease (GVHD) prevention

RESULTS

Sibling donors - compared to parents - were associated with a lower risk of GVHD.

- Frequency of grade 2-4 acute GVHD at 100 days after transplant was highest with older donors
- Cumulative incidence of chronic GVHD was higher with older donors
- Risk of graft failure was highest when donors were 18 years old or older

IMPACT

Where data was lacking, we now have evidence to help transplant teams select and prioritize haploidentical donors in the pediatric setting. Choosing younger donors could help minimize GVHD and graft failure.

FROM THE EXPERTS

Haploidentical transplants are increasingly being performed within the pediatric population, but there is little guidance to help physicians choose between haploidentical donor options - parents, siblings, or extended family members. Our data shows for the first time that the age of the donor and relationship to the patient impacts the development of GVHD in children receiving haploidentical transplants. Our results are the first step in building an algorithm to guide selection of the optimal haploidentical donor, to improve transplant outcomes for children."



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