

# Study shows significant improvement in overall survival outcomes for patients receiving blood stem cell transplants

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(Medical Xpress)—Survival rates have increased significantly among patients who received blood stem cell transplants from both related and unrelated donors, according to a study published in the *Journal of Clinical Oncology* today. The study authors attribute the increase to several factors, including advances in HLA tissue typing, better supportive care and earlier referral for transplantation.

The study analyzed outcomes for more than 38,000 transplant patients with life-threatening blood cancers and other diseases over a 12-year period – capturing approximately 70 to 90 percent of all related and unrelated blood [stem cell transplants](#) performed in the U.S. It was led by Theresa Hahn, Ph.D., of Roswell Park Cancer Institute (RPCI), in collaboration with the Center for International Blood and Marrow Transplant Research (CIBMTR), the research arm of the National [Marrow Donor Program](#) (NMDP) and Be The Match.

"This study shows that we are making significant progress, on a national level, in survival after transplantation. Patients across the country have benefited from the collaborative efforts of the CIBMTR, the NMDP and clinical researchers at individual transplant centers," said Dr. Hahn, an Associate Member and Associate Professor of Oncology in RPCI's Department of Medicine and first author on the study. "Our results demonstrate that these efforts have yielded improvement in early survival rates, and we will continue to work together to further improve

long-term survival."

At 100 days post-transplant, the study shows survival significantly improved for patients with myeloid leukemias (AML) receiving related transplants (85 percent to 94 percent) and unrelated transplants (63 percent to 86 percent). At one-year post-transplant, patients who received an unrelated transplant showed an increased survival rate from 48 to 63 percent, while the survival rate for related transplant recipients did not improve. Similar results were seen for patients with [acute lymphoblastic leukemia](#) (ALL) and myelodysplastic syndrome (MDS).

"The existence of the CIBMTR, which is a collaboration of the NMDP and the Medical College of Wisconsin, and its database of more than 330,000 patient outcomes made it possible for us to study whether and how the use of blood stem [cell transplants](#), both related and unrelated, have changed over time," said Navneet Majhail, M.D., co-author of the study and medical director at the NMDP. "The significant improvements we saw across all patient and disease populations should offer patients hope and, among physicians, reinforce the role of blood stem cell transplants as a curative option for life-threatening [blood cancers](#) and other diseases."

In addition to improved survival, the authors note a significant increase in the overall number of patients receiving transplants. Related and unrelated transplant as treatment for ALL, AML, MDS and Hodgkin and non-Hodgkin lymphomas increased by 45 percent – from 2,520 to 3,668 patients annually. This is likely due to the use of reduced-intensity conditioning therapy and a greater availability of unrelated volunteer donors, a result of efforts by the NMDP and Be The Match to increase and diversify the Be The Match Registry.

"As evidenced by this data, the transplantation community has clearly made momentous progress toward improving [survival rates](#)," said Jeffrey

W. Chell, M.D., chief executive officer of the NMDP. "Together with our research arm, CIBMTR, and our global partners, we will continue advancing the science of transplant to extend the curative power of this therapy to more patients and more diseases and help all [patients](#) live longer, healthier lives."

Provided by Roswell Park Cancer Institute

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