

# Race, ethnicity affect likelihood of finding suitable unrelated stem cell donor for cancer patients

September 11 2012

---

(Medical Xpress)—Researchers at Moffitt Cancer Center and colleagues have published a study describing the greater difficulty in finding matched, unrelated donors for non-Caucasian patients who are candidates for hematopoietic cell transplantation (HCT).

The study appeared in the August issue of [Bone Marrow Transplantation](#).

The success of HCT depends on finding cell donors who are closely matched genetically; as the degree of mismatching increases, the success of unrelated donor HCT falls accordingly. A patient's ideal donor is a genetically matched [sibling](#).

The search for a perfectly matched donor for all groups takes time and affects the progression to transplantation. The National [Marrow Donor Program](#) estimates that the genetically matched donor rate is 90 percent for [Caucasian patients](#), 70 percent for [Hispanics](#) and Asians, and 60 percent for those of [African ancestry](#).

"Using unrelated adult donors to facilitate HCT has provided major opportunities for patients without a matched sibling donor. In fact, the rate of unrelated donors now exceeds the rate of related donor HCT," said Joseph Pidala, M.D., M.S., assistant member of Moffitt's Blood & Marrow Transplant Department and a member of the Immunology

Program. "Using data available at Moffitt, we sought to describe the determinants of a successful, unrelated donor search and to explore the contribution of donor identification versus patient characteristics leading to successful transplantation outcome."

According to Pidala, many patients can achieve prolonged, condition-free survival after unrelated donor HCT. There is, however, a need to understand "modifiable factors" that limit access to unrelated donor HCT.

The researchers concluded that the difficulties in finding well-matched donors in some minority groups were likely related to the degree of genetic heterogeneity within those groups, as well as their underrepresentation in donor pools.

They concluded that when compared to Caucasians, African-Americans, Hispanics and Native Americans have greater difficulty in finding a suitably matched unrelated donor, and less likelihood of successfully reaching HCT. Other barriers to HCT include age and disease progression.

"This research speaks to the need for reducing the time from HCT consultation to donor identification and HCT," Pidala said. "Survival benefit for HCT is dependent upon finding a suitable donor in a timely manner and addressing modifiable barriers to reaching HCT."

"Our data are consistent with the expectation that if suitable unrelated donors could be more expeditiously identified, patient outcomes would improve, particularly for racial and ethnic minorities and for patients with better performance status," concluded Pidala and his colleagues. "Increased representation of ethnic minorities within unrelated donor registries will increase the likelihood of finding a suitable donor."

**More information:** [www.nature.com/bmt/journal/vao ...  
/pdf/bmt2012150a.pdf](http://www.nature.com/bmt/journal/vao.../pdf/bmt2012150a.pdf)

Provided by H. Lee Moffitt Cancer Center & Research Institute

Citation: Race, ethnicity affect likelihood of finding suitable unrelated stem cell donor for cancer patients (2012, September 11) retrieved 4 May 2024 from <https://medicalxpress.com/news/2012-09-ethnicity-affect-likelihood-suitable-unrelated.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--