

The health risk of donor socioeconomic status is transplantable into a new host through HCT

A retrospective study from CIBMTR® (Center for International Blood and Marrow Transplant Research®)

CIBMTR is a research collaboration between the Medical College of Wisconsin® and NMDPSM.

STUDY DETAILS:

Researchers asked whether donor socioeconomic status (SES) impacts the outcomes of allogeneic hematopoietic cell transplant (alloHCT). They tested whether alloHCT recipients' health outcomes differed as a function of their donor's SES, controlling for other risk factors related to their transplant.

The study included patients who were diagnosed with acute myeloid leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, or myelodysplastic syndromes between 2000–2013 and received their first NMDP-facilitated unrelated donor 8/8 human leukocyte antigen (HLA)-matched allogeneic transplant using a peripheral blood stem cell graft.

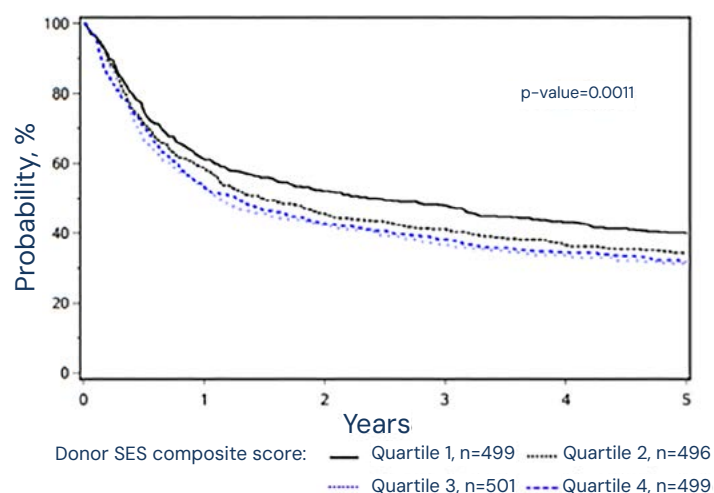


Figure: OS for patients by donor SES
(quartile 1=highest SES, quartile 4=lowest SES).

Read the publication in PNAS ([doi: 10.1073/pnas.2404108121](https://doi.org/10.1073/pnas.2404108121)).

RESULTS AT A GLANCE:

- Donor SES was significantly associated with recipient disease-free survival (DFS).
- Compared to patients with donors in the highest SES quartile, patients with donors in the lowest SES quartile had:
 - Inferior DFS
 - A 9.7% reduction in overall survival (OS)
 - A 6.6% increase in treatment-related mortality

CLINICAL IMPACT:

These results appear consistent with previous research linking socioeconomic disadvantage to altered immune cell function and hematopoiesis, revealing an unanticipated persistence of those effects after HCT. Future research with more contemporary datasets is needed to map the biological mechanisms involved in the social determinants of health and develop interventions to block those effects and enhance the health of both HCT recipients and donors.

Scan to review more
recent clinical research.

