

## **Cytogenetics classifications for leukemia patients undergoing transplantation**

Cytogenetics, or the study of chromosomes, help predict the health of patients with acute myelogenous leukemia (AML). Chemotherapy is often used to treat AML. Cytogenetics classifications are already in use to help treat these patients. Another treatment for AML is hematopoietic (blood) stem cell transplantation. The authors of this study wanted to use cytogenetics to help treat these patients. They studied 821 adult AML patients. The patients were in first or second complete remission. They were reported to the Center for International Blood and Marrow Transplant Research (CIBMTR) between 1999 and 2004. The researchers found three risk groups using cytogenetics: a low-risk (favorable) group (5% of patients), a high-risk (adverse) group (9% of patients), and a medium-risk (intermediate) group (86% of patients). These new classifications could be used to predict how well patients with AML will respond to transplant.

Source: Classifying cytogenetics in patients with acute myelogenous leukemia in complete remission undergoing allogeneic transplantation: a Center for International Blood and Marrow Transplant Research study. Armand P, Kim HT, Zhang MJ, Perez WS, Dal Cin PS, Klumpp TR, Waller EK, Litzow MR, Liesveld JL, Lazarus HM, Artz AS, Gupta V, Savani BN, McCarthy PL, Cahn JY, Schouten HC, Finke J, Ball ED, Aljurf MD, Cutler CS, Rowe JM, Antin JH, Isola LM, Di Bartolomeo P, Camitta BM, Miller AM, Cairo MS, Stockerl-Goldstein K, Sierra J, Savoie ML, Halter J, Stiff PJ, Nabhan C, Jakubowski AA, Bunjes DW, Petersdorf EW, Devine SM, Maziarz RT, Bornhauser M, Lewis VA, Marks DI, Bredeson CN, Soiffer RJ, Weisdorf DJ. *Biology of Blood and Marrow Transplantation*. 2012 Feb 01;18(2):280-288. Epub 2011 Jul 31. PMC3224672 [Available on 2013/2/1]