

Treatment helps children and teens with acute leukemia thrive after cord blood transplants

A certain treatment regimen in the days just before cord blood transplant helped young people with acute leukemia live longer after transplant. That's news from the Blood and Marrow Transplant Clinical Trials Network (BMT CTN).

Researchers studied young people in the U.S. and Canada who had either acute myeloid leukemia (AML) or acute lymphoblastic leukemia (ALL). These young people ranged from 1 to 21 years old. They had cord blood transplants between 2006 and 2012.

The researchers looked at the medical records of the children five years after transplantation. They found that the children who lived the longest had gotten a certain treatment just before transplant.

TCF treatment was best preparation for cord blood transplant

A preparative regimen or conditioning regimen is the treatment given in the days and weeks before transplant. It includes chemo and sometimes radiation therapy. It's given to destroy abnormal cells. It also helps the body accept the donated cells.

Doctors can choose from many regimens that may include radiation or chemotherapy (chemo) drugs or a combination. In this study, the young people who got a regimen nicknamed TCF lived longer than children who got other regimens. TCF includes:

1. Total body irradiation (TBI)
2. Cyclophosphamide (a chemo drug)
3. Fludarabine (a chemo drug)

Some questions remain

Researchers studied the use of TCF with cord blood transplants in young people with acute leukemia. We don't know if TCF is the best regimen for other types of transplants or for people of other ages.

Questions to ask your doctor

If your child needs a transplant, you may want to ask:

- What is the best preparative regimen for my child?
- When is the best time to have a transplant?
- Who is the best donor for my child?



Learn more about

- [This research study from its publication](#)
- [This research study on ClinicalTrials.gov](#)
- [Cord blood and transplants](#)
- [Donating cord blood](#)
- [Chemo or radiation before transplant](#)

Source:

Eapen M, Kurtzberg J, Zhang M-J, et al. Umbilical cord blood transplantation in children with acute leukemia: Impact of conditioning on transplantation outcomes. *Biology of Blood and Marrow Transplantation: Journal of the American Society for Blood and Marrow Transplantation*. 2017 Oct 1; 23(10):1714-1721. doi:10.1016/j.bbmt.2017.06.023. Epub 2017 Jul 3. PMC5605440.

BMT CTN Data Coordinating Center

Center for International Blood and Marrow Transplant Research® • Froedtert and the Medical College of Wisconsin • Clinical Cancer Center •
9200 West Wisconsin Avenue • Suite C5500 • Milwaukee, WI 53226 • 414-805-0700 • Fax: 414-805-0714

The Emmes Corporation® • 401 N. Washington Street • Suite 700 • Rockville MD 20850 • 301-251-1161 • Fax: 301-251-1355

National Marrow Donor Program® • 500 N 5th Street • Minneapolis MN 55401 • 612-627-5800 • Fax: 763-406-4370