



Certain antibiotics linked with graft-versus-host disease

Carbapenems may seriously affect young people who have leukemia

Doctors should not give certain antibiotics to children with leukemia during blood or marrow transplant (BMT).

That's according to a new study that included more than 2,500 people, with ages ranging from newborn to 21 years old. Everyone got allogeneic BMT, or cells donated by someone else, for acute leukemia, a form of blood cancer.

BMT can cure leukemia, but it also makes people more vulnerable to germs for a while. So, doctors often give children antibiotics before and after BMT.

A certain group of antibiotics, call carbapenems, was linked to acute graft-versus-host disease (GVHD), a bad side effect that can hurt the skin, liver, stomach and intestines.

Researchers said carbapenems may harm the good bacteria that live in people's intestines. The good bacteria may help prevent GVHD. Two other groups of antibiotics, cephalosporins and a certain type of penicillin, were also studied. They were not linked to acute GVHD.

Instead of carbapenems, researchers said doctors should consider giving other kinds of antibiotics.

Keep in mind

GVHD can only happen to someone who had an allogeneic BMT. People who had an autologous BMT can still get carbapenems. Also, the study may not apply to children who have diseases other than leukemia. Finally, more studies are needed to prove cause and effect.



Learn more about

- GVHD basics at BeTheMatch.org
- Studies for children with AML at CTsearchsupport.org
- More study summaries at CIBMTR.org

About this research summary

This information is provided on behalf of the Consumer Advocacy Committee of the CIBMTR[®] (Center for International Blood and Marrow Transplant Research[®]).

Source

Elgarten CW, Li Y, Getz KD, et al. Broad-Spectrum Antibiotics and Risk of Graft-versus-Host Disease in Pediatric Patients Undergoing Transplantation for Acute Leukemia: Association of Carbapenem Use with the Risk of Acute Graft-versus-Host Disease. *Transplantation and Cellular Therapy.* 2021 Feb;27(2):177.e1-177.e8. Epub 2020 Dec 21. PMC7946150. doi: 10.1016/j.jtct.2020.10.012.

