A medicine for transplant can raise the chance of infections

Cyclophosphamide is still helpful; patients should be watched for infections

A medicine that prevents serious side effects after blood or marrow transplant (BMT) may increase the risk of infections, according to a new study.

BMT from donated cells can cure blood cancers such as acute leukemia and MDS. But BMT can have a serious side effect called graft-versus-host disease (GVHD). In GVHD, the donated cells attack a patient's organs. This can be serious.

A medicine called cyclophosphamide helps prevent GVHD. Cyclophosphamide allows people who don't have a fully matched BMT donor to use a haploidentical, or half-matched donor. This helps more people get a transplant.

However, cyclophosphamide can raise the risk of infections in the first 6 months after transplant. Cyclophosphamide can prevent GVHD, but people need to get checked more closely for infections.

That's from a study of about 2,800 people who got either cyclophosphamide or older medicines, called calcineurin inhibitors (CNI) to prevent GVHD.

Everyone got BMT during 2012-2017. They had BMT from either a fully matched or half-matched sibling. Everyone had either acute leukemia (AML or ALL) or myelodysplastic syndromes (MDS).

Six months after BMT, people who got cyclophosphamide had more infections than people who got CNI:

- About half (1 in 2 people) who got cyclophosphamide had infections
- About one-third (1 in 3 people) who got CNI had infections
People who did **not** get early infections, within 16 days after BMT, were slightly more likely to live longer. One year later:

- 61-68% (about 2 in 3 people) who **had early infections** were alive
- 66-71% (more than 2 in 3 people) who had **no early infections** were alive

People were more likely to have infections if they:

- Were older than 60
- Had severe leukemia or MDS
- Had GVHD
- Had low numbers of white blood cells

Infections can happen with both cyclophosphamide and CNI. Ask your doctor about treatments after BMT. There is a **clinical trial using lower doses of cyclophosphamide** to prevent GVHD.

**Learn more about**

- [Protecting against infections](NMDP.org)
- [Clinical trials about infections](CTsearchsupport.org)
- [More study summaries](CIBMTR.org)

**Source**


**About this research summary**

This information comes on behalf of the Consumer Advocacy Committee of CIBMTR® (Center for International Blood and Marrow Transplant Research®), a research collaboration between the Medical College of Wisconsin and NMDP.

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