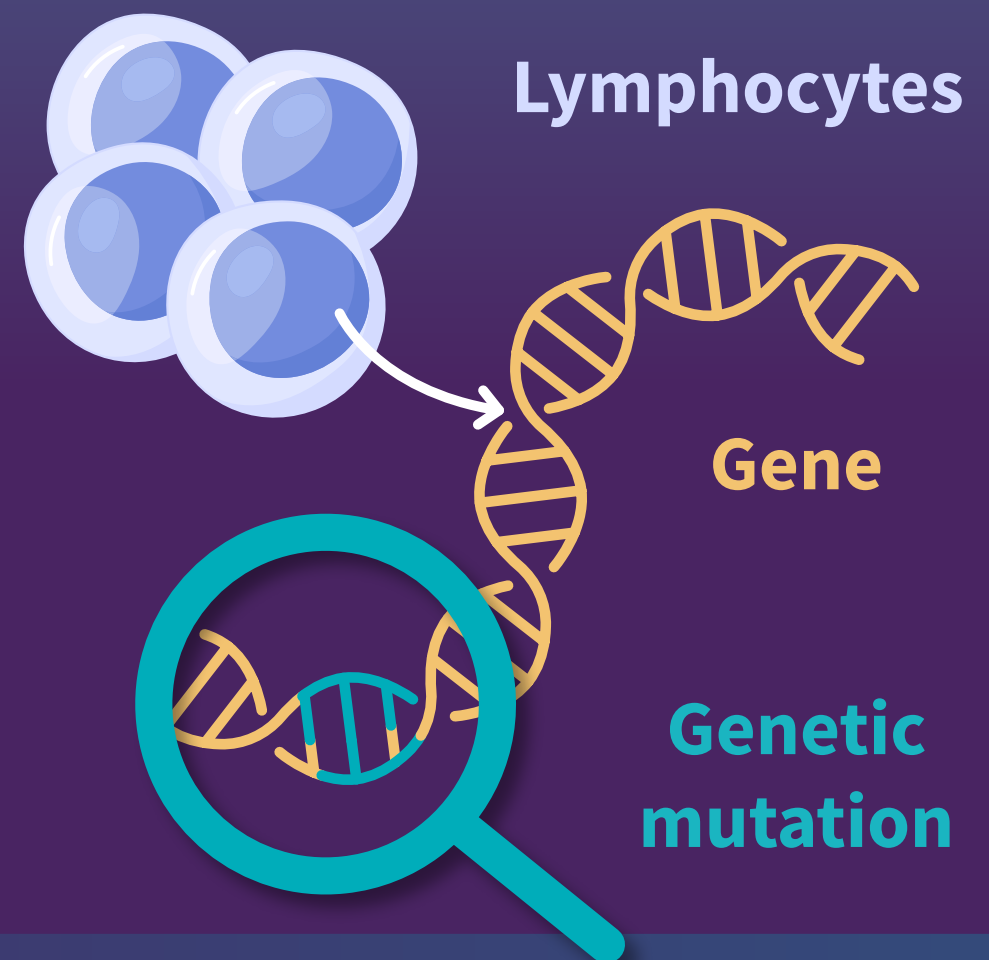


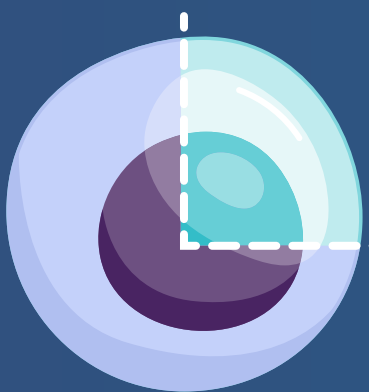
Targeted treatment for older adults with acute lymphoblastic leukemia

Acute lymphoblastic leukemia (ALL) is a type of blood cancer in which abnormal immature white blood cells (lymphoblasts) build up in the blood and bone marrow.

There are **two main types** of acute lymphoblastic leukemia, depending on whether it develops from B cells or T cells, which are types of white blood cells.



B-cell ALL
~**75%** of
adult cases



T-cell ALL
~**25%** of
adult cases

Each type can be further divided into ~25 subtypes based on genetic changes. Different patients can have different genetic changes in the DNA of their leukemia cells. These changes can affect proteins made by the cells, and how they grow and survive. Identifying these changes helps healthcare teams understand the disease and plan treatment.



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Treatment of acute lymphoblastic leukemia in older adults

Treatment usually starts soon after diagnosis and may involve several different therapies. Treatment plans are based on different factors:



The specific
subtype of ALL

Age, and overall
health and fitness

Results of genetic
and molecular tests

How well the leukemia
responds to treatment



Chemotherapy has traditionally been a key part of treatment. It works by killing leukemia cells, but can also affect healthy cells that grow quickly, which can cause side effects.

Chemotherapy can be **challenging for older adults** because of other health conditions, medicines they may be taking, and their overall fitness and frailty. Less intensive approaches, including targeted treatments that may reduce the amount of chemotherapy required, are being explored.

Targeted treatments

What are targeted treatments?

Targeted treatments are designed to find and attack specific features of leukemia cells.

How do targeted treatments work?

Different targeted treatments work in different ways. They can:

- Slow or stop leukemia cells from growing and multiplying
- Find and destroy leukemia cells
- Help the immune system recognize and attack leukemia cells
- Deliver treatments, such as chemotherapy, directly to leukemia cells

How is it decided if targeted treatments may be suitable?

The subtype of acute lymphoblastic leukemia and any genetic changes found through testing can help guide treatment choices. Healthcare teams use treatment guidelines and also consider other factors when deciding whether targeted treatments may be an option.

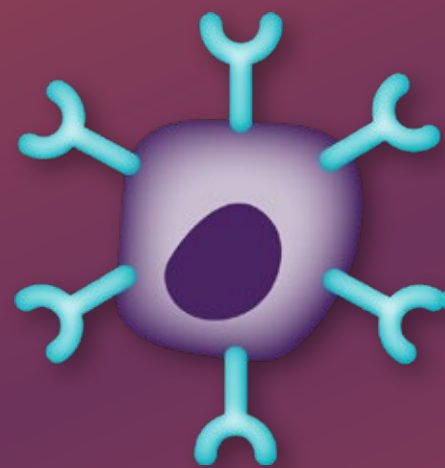
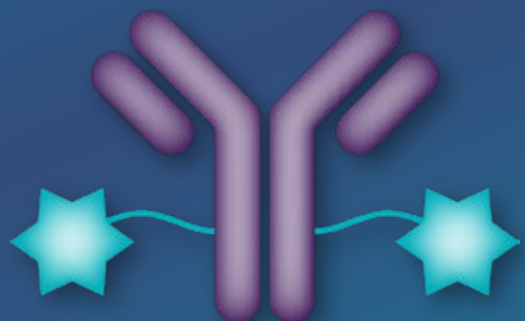


Types of targeted treatments

Here are some examples of targeted treatments that may be considered for older adults, depending on the type and features of their acute lymphoblastic leukemia and other factors.

Antibody–drug conjugates

Use a special recognition tool to deliver a cancer-killing drug to leukemia cells.

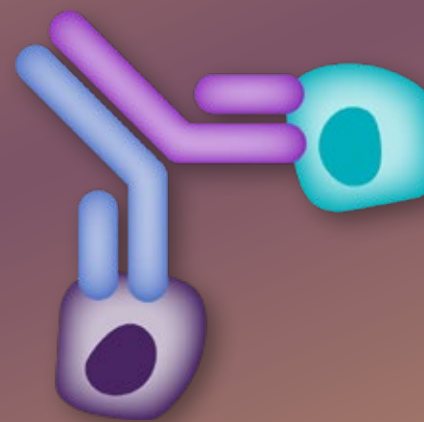


CAR T-cell therapies

Add a “recognition tool” to immune cells, helping them find and attack leukemia cells.

Bispecific T-cell engagers

Bring immune cells close to leukemia cells, helping them find and destroy leukemia cells.



Tyrosine kinase inhibitors

Block signals that help leukemia cells grow and survive.

Targeted treatments are currently available for some people with acute lymphoblastic leukemia, and clinical trials continue to explore new treatments, particularly for older adults. These may provide alternatives to chemotherapy or reduce the amount of chemotherapy needed.

Key points to remember...

Acute lymphoblastic leukemia can vary between patients, including differences in subtype and genetic features that can be identified through testing to help guide treatment decisions.

Treatment may need to be adapted for some older adults, as health conditions, fitness, and other factors can affect how well they are able to cope with intensive chemotherapy.

Targeted treatments act on features of leukemia cells to stop them growing, deliver cancer-killing drugs, or help immune cells recognize and attack them.

Research is continuing to explore targeted approaches for older adults with acute lymphoblastic leukemia.





Empowering patients and their loved ones through up-to-date, reliable information on acute lymphoblastic leukemia

Know-ALLLeukemia.com

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