

Doctor, can I take Lixiana® to treat my blood clot caused by cancer?

A new study has shown that one of the newer anticoagulant pills Lixiana® (edoxaban) is safe and effective at preventing new blood clots in people with cancer. However, this drug may not be the best choice for everyone with cancer. We should talk about whether that is a good plan for you.

What's the evidence?

Understanding the problem

Cancer is a powerful risk factor for forming deep vein thrombosis (DVT) or pulmonary embolism (PE). We know that cancer triggers the clotting process, but we don't fully understand how. We also don't know why only some people with cancer develop a DVT or PE while others do not (about 15 out of every 100 people with cancer will develop a DVT or PE).

Most people with DVT or PE due to cancer are given anticoagulants by needle to protect them from forming new blood clots. The needles contain a medication called low-molecular-weight heparin (LMWH) that is available under different brand names (e.g. Fragmin®). Older studies showed that the needles are better than an older anticoagulant pill, warfarin (Coumadin®) at protecting people with cancer from forming new blood clots. Researchers wondered whether a new anticoagulant pill (Lixiana®) is just as effective and safe at preventing new blood clots as LMWH needles in people with cancer.

The study

Who? The study included 1046 people with cancer (average age 64; 52% male) and DVT or PE.

What? The study compared 5 days of LMWH followed by Lixiana® with Fragmin® alone for 6 to 12 months.

Lixiana® (edoxaban)	vs	Fragmin® (dalteparin)
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Lixiana® (edoxaban)	vs	Fragmin® (dalteparin)
LMWH once a day for 5 days* followed by Lixiana®, 60 mg once a day for 6 to 12 months *needles must be given for the first 5 days		Fragmin®, 200 IU/kg once a day for 30 days followed by 150 IU/kg once a day for 6 to 12 months

What the researchers found

Lixiana® was as effective as Fragmin® at preventing new blood clots in people with DVT or PE due to cancer.

3 more people out of 100 taking Lixiana® had serious bleeding (e.g. requiring a blood transfusion) compared with people who took Fragmin®. Most of the serious bleeds occurred in people with cancer of the stomach or esophagus.

Summary of findings

Lixiana® vs Fragmin® for DVT or PE in people with cancer

Outcomes at 12 months	Rate of events with Lixiana®	Rate of events with Fragmin®	Results
New DVT or PE	8 out of 100 people	11 out of 100 people	No effect*
Major bleeding (serious bleeding, e.g. requiring a blood transfusion)	7 out of 100 people	4 out of 100 people	3 more people out of 100 had a major bleed while taking Lixiana®

*Although the rates for the 2 groups look different, the differences were not statistically significant—this means that the difference could simply be due to chance rather than due to the different treatments.

This Evidence Summary is based on the following article:

Raskob GE, van Es N, Verhamme P, et al. *Edoxaban for the Treatment of Cancer-Associated Venous Thromboembolism*. *N Engl J Med*. 2018 Feb 15;378(7):615-624. doi: 10.1056/NEJMoa1711948. Epub 2017 Dec 12. PubMed

(<https://www.ncbi.nlm.nih.gov/pubmed/29231094?dopt=Abstract>)

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Glossary

anticoagulant	medications that prevent blood clots from forming or travelling (aka blood thinner)
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deep vein thrombosis (DVT)	formation of a blood clot within a vein deep within the leg
DVT	formation of a blood clot within a vein deep within the leg
heparin	anticoagulant given by intravenous infusion or by injection under the skin
LMWH	anticoagulant given by injection under the skin (e.g. Fragmin®, Lovenox®, Innohep®) (aka LMWH)
major bleeding	serious bleeding (e.g. requiring a visit to the doctor or hospital, an invasive test to find the source of bleeding or a blood transfusion)
PE	blood clot(s) that cause obstruction of blood vessels within the lungs (pulmonary artery), after travelling from veins, most commonly within the leg or arm or pelvis
pulmonary embolism (PE)	blood clot(s) that cause obstruction of blood vessels within the lungs (pulmonary artery), after travelling from veins, most commonly within the leg or arm or pelvis
risk factor	characteristics that increase the chance that a person will develop a disease or condition or experience a bad outcome
warfarin	anticoagulant pill that blocks the liver from making normal clotting proteins (the proteins are still made but they don't work); requires blood tests to monitor the effect (aka Coumadin®)

