

Should you give cancer patients primary prophylaxis for venous thromboembolism?

Clinical Question What is the efficacy and safety of primary thromboprophylaxis for venous thromboembolism (VTE) in ambulatory cancer patients receiving chemotherapy?

Bottom Line In ambulatory cancer patients, primary thromboprophylaxis with direct factor Xa inhibitors may reduce the incidence of symptomatic VTE (low-certainty evidence) and probably increases the risk major bleeding (moderate-certainty evidence) when compared with placebo. Low-molecular-weight heparin (LMWH) reduces symptomatic VTE with 37 participants requiring prophylaxis to prevent one event (high-certainty evidence). This benefit comes at the cost of a higher incidence of major bleeding, where for each 144 participants treated, one event is expected to occur when compared against placebo or no thromboprophylaxis (moderate-certainty evidence). Evidence for the use of thromboprophylaxis with anticoagulants other than direct factor Xa inhibitors and LMWH is limited.

Caveat No RCTs evaluated fondaparinux, dabigatran, edoxaban, and mechanical interventions. Comorbidities predisposing to bleeding, which often represent an exclusion criterion in RCTs on anticoagulants, might result in a greater number of major bleeding complications and limit the use of thromboprophylaxis in routine clinical practice. Additional concerns may be the use of thromboprophylaxis with apixaban or rivaroxaban in some types of cancers, such as those of the gastrointestinal or genitourinary tracts, which were more prone to bleed in the studies with direct oral anticoagulants

Context Venous thromboembolism (VTE) often complicates the clinical course of cancer. The risk is further increased by chemotherapy, but the trade-off between safety and efficacy of primary thromboprophylaxis in cancer patients treated with chemotherapy is uncertain.

Cochrane Systematic Review Rutjes AWS, Porreca E, Candeloro M, Valeriani E, Di Nisio M. Primary prophylaxis for venous thromboembolism in ambulatory cancer patients receiving chemotherapy. Cochrane Database of Systematic Reviews 2020, Issue 12. Art. No.: CD008500. DOI: 10.1002/14651858.CD008500.pub5. This review contains 32 trials with a total of 15,678 participants.

Pearls No. 670, January 2021, written by Vanessa MB Jordan.

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD008500.pub5/full>