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# Ambulatory cancer patients: who should definitely receive antithrombotic prophylaxis and who should never receive

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## Abstract

Up to 15-20% of cancer patients experience one or more episodes of venous thromboembolism during cancer disease. Approximately 80% of all cancer-associated venous thromboembolic events occur in non-hospitalized patients. Routine thromboprophylaxis for outpatients with cancer who start new anticancer treatment is currently not recommended by the international guidelines due to the high heterogeneity of these patients in terms of VTE or bleeding risks, the difficulties in selecting patients at high risk, and the uncertainty of duration of prophylaxis. Although the international guidelines endorsed the Khorana score for estimating the thrombotic risk in ambulatory cancer patients, the discriminatory performance of this score is not completely convincing and varies according to the cancer type. Consequently, a minority of ambulatory patients with cancer receive an accurate screening for primary prophylaxis of VTE. The aim of this review is to provide support to physicians in identifying those ambulatory patients with cancer for whom thromboprophylaxis should be prescribed and those that should not be candidate to thromboprophylaxis. In absence of high bleeding risk, primary thromboprophylaxis should be recommended in patients with pancreatic cancer and, probably, in patients with lung cancer harboring ALK/ROS1 translocations. Patients with upper gastrointestinal cancers are at high risk of VTE, but a careful assessment of bleeding risk should be made before deciding on antithrombotic prophylaxis. Primary prevention of VTE is not recommended in cancer patients at increased risk of bleeding as patients with brain cancer, with moderate-to-severe thrombocytopenia or severe renal impairment.

**Keywords:** Ambulatory patient; Antithrombotic prophylaxis; Cancer; Chemotherapy; Primary prevention; Venous thromboembolism.

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