

ITAC MANDATE

The International Initiative on Cancer and Thrombosis (ITAC, <https://www.itaccme.com>) is a non-profit multidisciplinary group of academic experts from across the globe committed to improving the management of patients with cancer-associated thrombosis (CAT). ITAC-CME has published a 2022 update of evidence-based clinical practice guidelines for the treatment and prophylaxis of Cancer-associated Thrombosis.

ITAC-CME aims to improve the lives and health outcomes of cancer patients worldwide and to help reduce a substantial economic burden on healthcare systems.

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- Patients with cancer are at 4 to 7-fold increased risk of venous thromboembolism (VTE).
- 4-20% of cancer patients will develop a VTE event during the course of their disease, but the risk is not the same for all cancer patients.
- VTE is the 2nd leading cause of death in patients with cancer.
- VTE can delay treatment or trigger changes in cancer treatment regimen.
- VTE can prolong hospitalization and compromise outcomes.
- VTE is associated with a higher risk of recurrence and bleeding complications.
- The use of these international clinical practice guidelines (CPGs) for the treatment and prophylaxis of VTE in patients with cancer may improve patient outcomes and reduce unnecessary burden on healthcare budgets globally.

ITAC CME GFTC

2022 ITAC Pocket Guidelines

Endorsed by
ISTH[™]
International Society on
Thrombosis and Haemostasis

CLINICAL PRACTICE GUIDELINES FOR THE TREATMENT AND PROPHYLAXIS OF VENOUS THROMBOEMBOLISM IN PATIENTS WITH CANCER



Download the ITAC Guidelines App

<https://www.itaccme.com>

TREATMENT OF ESTABLISHED VTE IN CANCER PATIENTS

① Initial treatment of established VTE

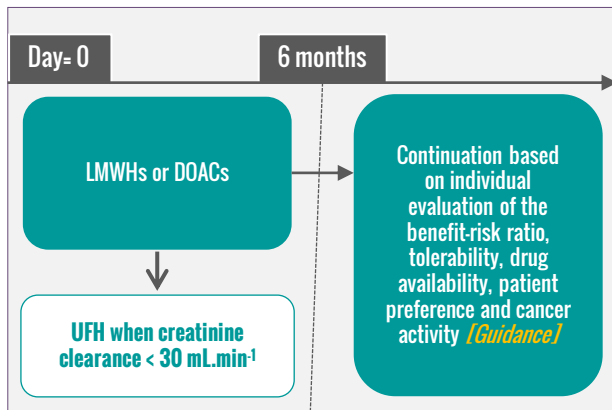
- All anticoagulants can be used.
- In patients with creatinine clearance ≥ 30 mL.min⁻¹, prefer LMWHs [Grade 1A] or DOACs (apixaban or rivaroxaban in the first 10 days, or edoxaban started after at least 5 days of parenteral anticoagulation) in patients not having a high risk for gastro-intestinal or genito-urinary bleeding [Grade 1A].

② Early maintenance (up to 6 months) and long-term (beyond 6 months) treatment of established VTE

- LMWHs are preferred over VKAs in patients with creatinine clearance ≥ 30 mL.min⁻¹ [Grade 1A]. (Daily SC injection may represent a burden for patients).
- DOACs (apixaban rivaroxaban or edoxaban) are recommended in cancer patients with creatinine clearance ≥ 30 mL.min⁻¹ in the absence of strong drug-drug interactions or of gastro-intestinal absorption impairment. [Grade 1A]. (Use caution in patients with gastro-intestinal tract malignancies, especially upper gastro-intestinal tract malignancies, as the currently available data demonstrate increased risk of GI tract bleeding with edoxaban and rivaroxaban).

Optimal Duration

- At least 6 months [Grade 1A].



③ Treatment of established catheter-related thrombosis

LMWHs are recommended for a minimum of 3 months and as long as the CVC is in place [Guidance]; the CVC can be kept in place if it is functional, well positioned, and non-infected with good resolution of symptoms under close surveillance, while anticoagulation therapy is administered [Guidance].

④ Special situations

- Brain tumors: LMWHs or DOACs can be used [Grade 2A].
- Severe renal failure (creatinine clearance < 30 mL.min⁻¹): UFH followed by early VKA (possible from day 1) or LMWH adjusted to anti-Xa level [Guidance].
- Thrombopenia: Full doses of anticoagulant can be used if the platelet count is > 50 G.L⁻¹ and there is no evidence of bleeding. For patients with a platelet count below 50 G.L⁻¹, decisions on treatment and dosage should be made on a case-by-case basis with the utmost caution [Guidance].

⑤ Treatment of VTE recurrence in cancer patients under anticoagulation

Management depends on the initial treatment [Guidance]:

- If LMWH, increase LMWH dose by 20%-25% or switch to a DOAC
- If DOAC, switch to LMWH
- If VKA, switch to LMWH or DOAC

PROPHYLAXIS OF VTE IN SURGICAL CANCER PATIENTS

- LMWH once per day (when creatinine clearance ≥ 30 mL.min⁻¹) or low-dose UFH 3 times per day. Pharmacological prophylaxis should be started 12-2 hours preoperatively and continued for at least 7-10 days. There are no data allowing conclusions regarding the superiority of one type of LMWH over another [Grade 1A].
- Use of the highest prophylactic dose of LMWH [Grade 1A].
- Extended prophylaxis (4 weeks) with LMWH to prevent postoperative VTE after major abdominal or pelvic surgery (either laparotomy or laparoscopy) is recommended in cancer patients without a high-risk of bleeding [Grade 1A].

PROPHYLAXIS OF VTE IN MEDICAL CANCER PATIENTS

① Hospitalized medical patients with cancer and reduced mobility: LMWH, UFH or fondaparinux [Grade 1B].

② Ambulatory patients with locally advanced or metastatic pancreatic cancer treated with systemic anti-cancer therapy and having a low bleeding risk: LMWH [Grade 1A] or DOACs [Grade 1B].

③ Ambulatory patients receiving systemic anti-cancer therapy at intermediate-to-high risk of VTE, identified by cancer type (i.e., pancreatic) or by a validated risk assessment model (i.e. Khorana score ≥ 2), and not actively bleeding or not at high risk for bleeding: DOAC (rivaroxaban or apixaban) [Grade 1B].

④ Patients with myeloma treated with IMiDs combined with steroids and/or other systemic anti-cancer therapies: VTE primary pharmacological prophylaxis is recommended [Grade 1A]. Oral anticoagulants (VKA at low or therapeutic doses, apixaban at prophylactic doses) or LMWH at prophylactic doses or low-dose aspirin (100 mg daily) can be used and have shown similar effects for VTE prevention [Grade 2B].

Khorana Score

Parameters	Point
Tumor site Very high-risk tumors: pancreatic, gastric High risk tumors: lung, lymphoma, bladder, testicular or gynecological	+2 +1
Platelet count $\geq 350 \times 10^9/L$	+1
Hemoglobin < 10 g/dl or use of erythropoietin stimulating agents	+1
White blood cell count $> 11 \times 10^9/L$	+1
BMI > 35 kg/m ²	+1

Sum Score = 0: Low risk ($< 1\%$); Sum Score = 1-2: Intermediate risk; Sum Score ≥ 3 : High risk