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 2019 update of evidence-based clinical practice guidelines for the treatment and prophylaxis of CAT.

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

ITAC STEERING COMMITTE

ITAC WEB SITE

https://www.itaccme.com

CONTACT

itaccme@gmail.com

- **Patients with cancer are at increased risk of venous thromboembolism (VTE)**
- **VTE is the 2nd leading cause of death in patients with cancer**
- **15-20% 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. Risk is influenced by factors such as cancer type and stage, and systemic anticancer treatment.**
- **Cancer is associated with a higher risk of VTE recurrence and bleeding complications**
- **The treatment and prevention of VTE must be specifically tailored for cancer patients**
- **The ITAC international clinical practice guidelines provide evidence-based treatment recommendations for the management and prevention of VTE in cancer patients**

GFTC
Groupe Francophone Thrombose et Cancer

ITAC CME
International Initiative on Thrombosis and Cancer

2019 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

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TREATMENT OF ESTABLISHED VTE IN CANCER PATIENTS

① Initial treatment of established VTE

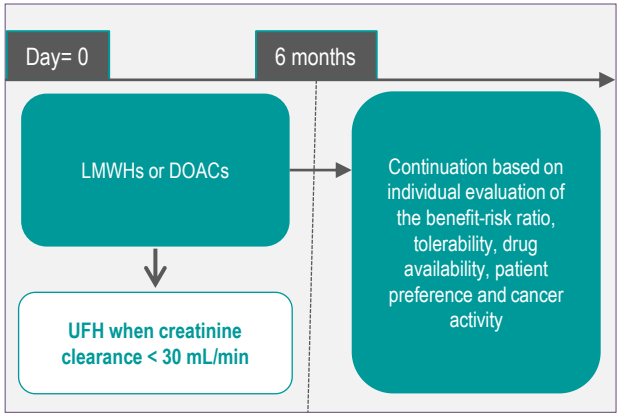
- All anticoagulants can be used.
- In patients with creatinine clearance ≥30 mL/min, prefer LMWHs [*Grade 1B*] or DOACs (rivaroxaban in the first 10 days, or edoxaban started after at least 5 days of parenteral anticoagulation) in patients not having a high risk for gastro-intestinal or genito-urinary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

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 [*Grade 1A*]:
- DOACs (rivaroxaban or edoxaban) are recommended in cancer patients with creatinine clearance ≥30 mL/min 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. Data for other DOACs are not available, and it is unclear whether other DOACs will have the same risk profile.

Optimal Duration

- At least 6 months.



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.

Special situations

- **Severe renal failure (creatinine clearance < 30 mL/min):** UFH followed by early VKA (possible from day 1) [*Guidance*].
- **Thrombopenia :** Full doses of anticoagulant can be used if the platelet count is > 50 g/L and there is no evidence of bleeding. For patients with a platelet count below 50 g/L, decisions on treatment and dosage should be made on a case-by-case basis with the utmost caution [*Guidance*].
- **Brain tumors :** LMWHs or DOACs can be used [*Guidance*]. In patients undergoing neurosurgery, post-operative LMWH or UFH is recommended

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 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. [*Grade 1A*].
- Use of the highest prophylactic dose of LMWH [*Grade 1A*].
- Extended prophylaxis (4 weeks) with LMWH after major laparotomy in cancer patients is indicated. Extended prophylaxis (4 weeks) with LMWH for the prevention of VTE in cancer patients undergoing laparoscopic surgery is recommended in the same way as for laparotomy [*Grade 2C*].

PROPHYLAXIS OF VTE IN MEDICAL CANCER PATIENTS

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

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

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*].

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 ≥350 x 10^9/L	+1
Hemoglobin <10 g/dL or use of erythropoietin stimulating agents	+1
White blood cell count >11 x 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

In patients treated with IMiDs combined with steroids and/or other systemic anti-cancer therapies, VTE primary pharmacological prophylaxis is recommended [Grade 1A]. VKA at low or therapeutic doses, LMWH at prophylactic doses, and low-dose aspirin can be used and have shown similar effects with regard to preventing VTE [Grade 2C].

Farge et al. Lancet Oncol. 2019 Oct;20(10):e566 e581.