Cancer-Related Venous Thrombosis

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Definition

For this guideline active cancer is considered to be a diagnosis of cancer (other than basal cell or squamous cell carcinoma of the skin) within the previous six-month period, and any treatment for cancer within the previous six-month period or recurrent or metastatic cancer.

Thromboprophylaxis

1. Refer to the MTW guideline 'Venous Thromboembolism Prevention Policy and Procedure'.
2. **Thromboprophylaxis in patients on long-term prothrombotic anti-cancer therapies**
   a) **Selective oestrogen receptor modulators (SERMs):** In general, although the relative risk of VTE is elevated during treatment with adjuvant therapies such as tamixofen, the absolute risk is not sufficiently high to warrant prophylactic anticoagulation. Consideration should be given to using thromboprophylaxis in women requiring a SERM who are post-menopausal with an increased BMI who have a high-risk thrombophilia or low risk thrombophilia plus a strong family history of VTE. There is no evidence on which to base decisions regarding choice of anticoagulation but either dalteparin or a prophylactic dose DOAC is a reasonable option, either rivaroxaban or apixaban. Women weighing more than 120kg should receive dalteparin.
   Women with a previous VTE requiring a SERM should receive therapeutic anticoagulation throughout the duration of the treatment. There is no evidence on which to base decisions regarding choice of anticoagulation but a DOAC is a reasonable option, either rivaroxaban or apixaban.

   b) **Patients with multiple myeloma receving IMiDs (thalidomide, lenalidomide, pomalidomide):** All patients should undergo risk assessment and receive low-dose aspirin if low risk and LMWH if non-low risk. Thromboprophylaxis should be continued until disease control is achieved. Please refer to BCSH guidelines (Bird et al, 2011).

Prevention of catheter-related thrombosis

Routine use of anticoagulants at prophylactic or treatment dose to prevent catheter-related thrombosis in cancer patients is not recommended. In patients with previous catheter-related thrombosis, consideration should be given to either prophylactic or treatment dose dalteparin if further in-dwelling catheters are required.

Treatment of Symptomatic Cancer-Associated VTE

- **Initial treatment up to six months** should be with treatment dose LMWH (dalteparin at MTW). In patients with CrCl of <30ml/min warfarin is the preferred option for maintenance as LMWH can accumulate and have an unacceptable bleeding risk.

- **DOACs**: there are no studies comparing DOACs with LMWH in patients with VTE and active cancer. For patients who cannot tolerate LMWH, warfarin or a DOAC are suitable alternatives.

- **Long-term (>6 months) therapy:** The duration of treatment should be decided by the patient's oncologist. It is reasonable to consider a DOAC if the patient does not wish to continue with daily injections after 6 months. It is reasonable to stop anticoagulation at 6 months if treatment is thought to have eradicated the malignant disease.

- **Incidental VTE:** cancer patients with incidental PE or DVT should be therapeutically anticoagulated as for symptomatic disease.

Thrombocytopenia

- If platelet count remains above 50 x 10^9/L full anticoagulation is without excessive bleeding risk during the first three months of anticoagulation. Platelet support should be given where possible to maintain this platelet count. HIT should be excluded in patients who have received heparin in previous 2 weeks with a fall in platelet count.
- A retrievable IVC filter may be required if persistent thrombocytopenia precludes anticoagulation. Please refer to MTW Guidelines: Algorithm for Use of Retrievable Inferior Vena Caval Filters
- If platelet count cannot be maintained with platelet support then 50% doses of LMWH can be given to patients with platelet count of 25-50 x 10^9/L. Twice daily injections may be preferred to reduce the peak levels of LMWH. Below this level, in general, anticoagulation should be withheld.

Treatment of Recurrent VTE whilst on anticoagulation in patients with active malignancy