

Anticoagulant Treatment of Cancer Patients in the Real World - Hematologists/Oncologists vs. Angiologists/Phlebologists

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Cancer patients have an exceptionally high risk of venous thromboembolism (VTE). This is due to surgeries, immobility, advanced age, prothrombotic medications, and the release of procoagulant factors by the tumor itself. At the same time cancer patients have a high bleeding risk. Unfortunately there is only a handful of high-quality, randomized studies on how to anticoagulate patients with cancer-associated VTE. Despite this dearth of information guidelines uniformly recommend low molecular weight heparin (LMWH) over vitamin K antagonists (VKAs) for treatment of established acute VTE both initially and long-term (first 3-6 months) (Table 1).

This is because LMWHs are more effective without increasing the risk of bleeding. Use of direct oral anticoagulants (DOACs) is currently not recommended during active cancer treatment.

It is uncertain how consistently clinicians adhere to these recommendations considering the inconvenience of daily s.c. LMWH injections compared to oral treatment. Several recent publications suggest that observance of guideline recommendations is relatively high with respect to the use of LMWH for acute VTE but suboptimal in long-term treatment [1-4]. After the acute phase many patients are switched to oral anticoagulants.

In 2014 we sent a questionnaire to hematologists/oncologists and other VTE-specialists in Germany to assess current practice of VTE management in cancer patients. We found that similar to their colleagues in other countries LMWH is the treatment of choice for acute VTE but for long-term secondary prophylaxis many switch to VKAs and DOACs. Among those who continue LMWH long-term, the dose is often reduced to 75% or 50% of the initial dose [5]. In a subsequent analysis we compared the responses of hematologists/oncologists and angiologists/phlebologists [6]:

- Cancer-associated VTE was considered a common issue both in hematology/oncology and angiology/phlebology daily practice.

- For both initial treatment of established VTE and for secondary prophylaxis throughout the next 3-6 months both specialties prefer LMWH but a considerable percentage also switches to VKAs and DOACs.
- If hematologists/oncologists give LMWH for 3-6 months then they reduce the dose earlier than angiologists/phlebologists and they prefer half-therapeutic doses.
- Beyond 6 months there is no difference with regards to using LMWH or oral anticoagulants. Fewer angiologists/phlebologists responded, they would prescribe DOACs to cancer patients (any indication, not only VTE).

The reasons for this are not clear. Angiologists/phlebologists might be more familiar with VTE guideline recommendations, since VTE is more central to their medical specialty while in hematology/oncology practice this is only one issue among many others. It could also be that hematologists/oncologists are more concerned about the risk of bleeding because this is particularly high in cancer patients. Shorter anticoagulation and half-therapeutic dosing 'feels' safer.

The main problem is that we do not have good data on how to manage cancer-associated VTE. In particular, we need more studies in "difficult" patients e.g. cancer patients with intensive chemotherapy or with a high bleeding risk from gastrointestinal tumors or with brain metastases. Cancer is a major contributor to global disease burden, affecting millions of patients worldwide every year and many will develop VTE. We need more studies on these common and real-world issues so that a cancer-associated VTE does not feel "difficult" any more.

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Initial treatment of established venous thromboembolism (VTE): First 10 days of anticoagulation

1. Low-molecular-weight heparin (LMWH) is recommended.
2. Fondaparinux and unfractionated heparin can also be used.

Early maintenance (10 days to 3 months) and long-term (beyond 3 months)

1. LMWHs are preferred over vitamin K antagonists (VKAs).
2. LMWH should be used for a minimum of 3 months.
3. Direct oral anticoagulants (DOACs) can be considered for patients with stable cancer not receiving systemic anticancer therapy, and in cases where VKA is an acceptable, but not an available, treatment choice.
4. After 3-6 months, termination or continuation of anticoagulation (LMWH, VKA or DOAC) should be based on individual assessment.

Table 1: Current guideline recommendations for treatment of venous thromboembolism in patients with cancer.

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