

SA Palliative Care Community Pharmacy Update

A joint initiative of South Australian Palliative Care Services

Cancer is a major risk factor for developing venous thromboembolism and the use of Direct-Acting Oral Anticoagulants in these patients differs from patients without cancer.

Case Study

Janet is a 72 year old female who was diagnosed with metastatic pancreatic cancer with expected prognosis of 3-6 months. She has variable appetite with mildly decreased platelets and is on enoxaparin 60 mg subcut twice daily for a small pulmonary embolus.

Janet has questioned why she needs to have injections and if there are any tablets or capsules she could take instead.

Direct-Acting Oral Anticoagulants in Cancer

Lack of Evidence

The major prospective, randomised controlled trials for Direct-Acting Oral Anticoagulants (DOAC) included few patients with cancer (range 1.1-6.8%). Some consensus guidelines recommend the consideration of DOACs in patients with stable, non-progressing disease including those on maintenance therapy.

There are a number of ongoing clinical trials which are specifically studying the use of DOACs in patients with cancer and the results will be helpful in informing their role in therapy.

Practical Considerations

In addition to usual precautions (renal impairment, drug interactions via P-glycoprotein and CYP P450 enzymes), additional factors should be considered when using DOACs in patients with cancer.

> Oral Intake

For patients with cancer, oral intake may be variable due to nausea, vomiting, mucositis, chemotherapy treatment and other disease processes. This may lead to inconsistent absorption and affect the efficacy of rivaroxaban in particular.

> Hepatic Function

Dabigatran is a prodrug which requires hepatic transformation; rivaroxaban and apixaban are metabolised by the liver. They can also cause liver dysfunction. Patients with significant liver function test abnormalities may not be suitable for DOAC therapy. This includes people with of primary or metastatic liver disease, or chemotherapy toxicity.

> Thrombocytopenia

Low platelets as a result of chemotherapy will increase the risk of bleeding with use of DOACs. There are no clear guidelines for dose adjustment in this scenario further adding to reluctance to use.

Given Janet's relatively short prognosis and low platelets, enoxaparin is preferred to changing to a DOAC.

Useful Resources

- > Lyman GH, Bohlke K, Khorana AA, et al. [Venous Thromboembolism Prophylaxis and Treatment in Patients with Cancer: American Society of Clinical Oncology Clinical Practice Guideline Update 2014](#). J Clin Oncol. 2015 Feb 20;33(6):654-6.
- > Ha N, Barnes GD. [Optimal Treatment Approaches of Cancer-Induced Thrombosis](#). American College of Cardiology. [Internet]. 2017 [cited 2018 Jun 15]
- > Smrke A, Gross PL. [Cancer-Associated Venous Thromboembolism: A Practical Review Beyond Low-Molecular-Weight Heparins](#). Front Med. 2017 Aug 28;4:142.

For more information

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This update is intended to provide practical up to date and factual information relating to pharmacy and medicines management in the setting of Palliative Care and is based on critical review of available evidence. Individual patient circumstances must be considered when applying this information. Please feel free to distribute this update further to interested colleagues.

