Care Homes Good Practice Guidance

Anticoagulants

What are anticoagulants?

Anticoagulants are medicines that help to prevent blood clots. They are given to people at high risk of getting clots, to reduce their chances of developing serious conditions such as strokes and heart attacks. Examples of anticoagulants include:

- Warfarin
- Direct oral anticoagulants (DOACs), including apixaban, dabigatran, edoxaban and rivaroxaban
- Injectable anticoagulants, also known as low molecular weight heparins

Common uses of anticoagulants

- Atrial Fibrillation (AF)
    - Heart condition that causes an irregular and often abnormally fast heart rate. People with AF have an increased risk of developing blood clots, which can lead to a stroke. Treatment for AF is normally long term.

- Deep Vein Thrombosis (DVT)
    - Blood clot forms in one of the deep veins in the body, usually in the legs, causing pain and swelling. Duration of treatment for DVT will vary for each person and will depend on a range of factors.

- Pulmonary embolism (PE)
    - Blood clot blocks one of the blood vessels around the lungs, stopping the supply of blood to the lungs. Duration of treatment for PE will vary for each person and will depend on a range of factors.

- Recent hip or knee replacement
    - People may be prescribed an anticoagulant to prevent blood clots until they are able to move around. Treatment is usually short term.

Side effects of anticoagulants

Bleeding is a common side effect of all anticoagulants, including warfarin, and it can occur in any part of the body. Seek immediate medical advice if spontaneous bleeding occurs whilst taking an anticoagulant and the bleeding does not stop or recurs. This includes:

- bruising
- bleeding gums
- nosebleeds
- prolonged bleeding from cuts
- blood in urine or stools
- vomiting blood or coughing up blood
- vaginal bleeding in a postmenopausal woman

Seek medical advice if sudden, severe back pain occurs while taking an anticoagulant. This could also indicate bleeding.

Anticoagulants and falls

Special care must be taken if a resident has a fall while taking an anticoagulant, as there is a higher risk of internal bleeding. Care home staff must follow their local care home protocol/ falls pathway.

Warfarin

Background information

Regular blood tests are required to check the International Normalised Ratio (INR), which is a measure of how fast the blood clots. The maximum time between blood tests is 12 weeks.

Each person will have an individual INR target range, which will depend on their medical condition. The dose prescribed will depend on the INR result. If the INR is lower than the target range, the warfarin dose may need to be increased; if the INR is higher than the target range, the warfarin dose may need to be reduced. The patient's anticoagulant team will prescribe a dosing schedule following each INR test.

The INR target range, INR results and prescribed dose should be specified in writing by the anticoagulant team, either in the resident's handheld yellow book, **or** via other written communication from the anticoagulant clinic. The yellow book provides further detailed information about:

- the medicine
- how to take it
- how to recognise side effects
- how to keep track of ongoing monitoring

Administration and record-keeping

Medicines Administration Record (MAR) charts for warfarin will be received from the pharmacy with an 'as directed' dose. Care home staff must:

- have a safe system in place for checking the prescribed dose prior to each administration.
- be aware that warfarin tablets are available in four different strengths: 0.5mg (white), 1mg (brown), 3mg (blue), 5mg (pink). Care must be taken to ensure the correct strength is selected.
- record the dose administered on the MAR chart or other appropriate form (see Appendix 1 for a Warfarin Administration Chart). The dose must always be recorded as milligrams (mg), not the number of tablets.

Dietary considerations

Certain foods such as broccoli, cabbage, liver, Brussels sprouts and green leafy vegetables contain high amounts of vitamin K and can affect how warfarin works. **These foods do not need to be avoided** as they are very nutritious, but aim for consistency in the intake of these foods. If there are any sudden, major changes in diet, inform the anticoagulant clinic.

Cranberry juice, grapefruit juice and products containing these should be avoided while taking warfarin.

Missed dose

Warfarin should be taken around the same time each day, usually in the evening. If a dose is missed, give the dose as soon as it is remembered/ available, and record the time of administration on the MAR chart. If the dose is not available/ remembered until the next day, omit the missed dose and give the next dose at the usual time. If a dose is omitted, inform the prescriber/ anticoagulant team as soon as is practicably possible.

Direct Oral Anticoagulants (DOACs)

Background information

This group of drugs includes apixaban, edoxaban, dabigatran, and rivaroxaban. Blood tests (to check how well the kidneys and liver are working) are taken before starting treatment, and at intervals throughout treatment as specified by the prescriber (this can range from every three months to every year). Blood tests to check INR are not required with DOACs.

Every resident on a DOAC will be provided with an anticoagulant alert card.

Administration – key points

Timing of doses	Depending on which DOAC is prescribed and the condition being treated, the frequency of administration will either be once or twice a day: • If the DOAC is prescribed once a day, administer the dose at the same time each day. • If the DOAC is prescribed twice a day, administer the doses 12 hours apart.
Administration in relation to food	Apixaban, edoxaban, dabigatran: • Can be taken with or without food. Rivaroxaban: • Doses less than 15mg can be taken with or without food. • Doses of 15mg or 20mg **must** be taken with food.
Special precautions for handling	Apixaban, edoxaban, rivaroxaban: • Do not require any special precautions for handling. Dabigatran: • Requires special precautions for handling. The hard capsules should be taken out of the blister pack by peeling off the backing foil. The capsule should not be pushed through the blister foil.
Multi-compartment compliance aids (MCA)	Dabigatran: • If a resident requires or receives their medication in a multi-compartment compliance aid, dabigatran must be kept separate in its original packaging to protect the drug from moisture. The care home should ensure there is a safe system in place for managing different systems of administration. Apixaban, edoxaban, rivaroxaban: • Can be put in a multi-compartment compliance aid.
Missed dose	The anticoagulant effects of DOACs can start to fade even after one dose omission. If a dose is missed, check if it is still possible to administer the delayed dose - check the Patient Information Leaflet or the NHS UK website. If further advice is needed, contact the prescriber or pharmacist. If a dose is omitted, inform the prescriber.

Appendix 1

Warfarin Administration Chart

When using this chart, the main MAR chart should be annotated 'see Warfarin Administration Chart'. **Do not double record**.

Prior to each administration:

- **Check the prescribed dose by referring to the written instruction provided by the anticoagulant clinic e.g. the resident's handheld yellow book or other written communication provided by the anticoagulant clinic.**
- **Always check that the date of the next INR blood test is not overdue.**

Resident's name:		**Date of Birth:**		**Room No:**	
GP practice:					
Anticoagulation clinic details:		**Last INR test (date):**			
		Next INR test (date):			

Date	Dose administered	Time of administration	Administered by

Further information and references

- Warfarin yellow book

- Anticoagulant alert cards:
  - Apixaban (the alert card can be found in the 'Risk Materials' section)
  - Dabigatran
  - Edoxaban
  - Rivaroxaban

- NHS UK website

- CQC High risk medicines: anticoagulants

- Patient information leaflets:
  - Apixaban
  - Dabigatran
  - Edoxaban
  - Rivaroxaban

Additional references

- https://cks.nice.org.uk/topics/anticoagulation-oral/

Acknowledgements

Some information within this guidance has been adapted from:

- East & North Herts CCG Good Practice Guidance on Novel Oral Anticoagulants
- Herts Valleys CCG Care Homes Newsletter on anticoagulation

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