NHS
Herts Valleys
Clinical Commissioning Group

Care Homes Newsletter

Issue 4, September 2018 Care Homes Newsletter for Care Home Staff, General Practitioners and Community Pharmacists

Anticoagulation

In the 4th edition of the Care Homes Newsletter, we will be focusing on areas related to anticoagulation.

What are They?

- Oral anticoagulants are indicated for a number of thromboembolic conditions and act by thinning the blood.
- Vitamin K antagonists , such as **warfarin**, have been the mainstay of oral anticoagulant therapy until the recent discovery of more precise targets for therapy.
- In recent years, several new/novel oral anticoagulants **(NOACs)** have been introduced also known as direct anticoagulants **(DOACS)**.
- NOACs are direct and specific inhibitors of single coagulation factors.

Currently there are four NOACs available in the UK;

- **Rivaroxaban**
- **Apixaban**
- **Edoxaban**
- **Dabigatran**

Warfarin or NOACS? - Differences

Both have advantages and disadvantages. The decision of when to start anticoagulation therapy and the choice between a NOAC or warfarin is ***dependent on the resident's particular circumstances*** and other ***medical conditions***.

The NOACs differ from warfarin in:

- ***No*** need for regular blood test monitoring
- ***Standardised dosing*** due to more predictable pharmacokinetics
- ***Quicker onset of action***
- ***Fewer*** drug and food ***interactions***
- ***No*** need for bridging with injections when interrupting anticoagulation for an invasive test or procedure

Fast Facts

Food Restrictions

Rivaroxaban doses of 15mg and above must be taken with food; bioavailabilty can be reduced by approximately 40% when fasting.

Monitoring

Warfarin:

- Requires ***regular blood tests*** to measure the amount of anticoagulation effect from warfarin.
- The blood test checks the international normalised ratio **(INR)** which is a numerical scale to measure how long it takes for the blood to clot.
- Depending on the medical condition, a ***target INR range*** will be set.
- If the INR is too low, a warfarin dose may need to be increased; if it is too a high, a dose may need to be decreased or missed. The anticoagulation team will advise about any adjustments in doses.
- The ***frequency of blood tests may increase*** if the resident is unwell or starts taking a new medicine.

Apixaban, Dabigatran, Rivaroxaban and Edoxaban:

- There is no INR monitoring with these anticoagulants.
- Blood tests are done to monitor how well the ***kidney*** and ***liver*** are working. These are usually done once a year, but they may be done more often if the resident becomes ill or has kidney problems.
- The ***dose prescribed*** will depend on the resident's ***body weight*** and how well the ***kidneys*** are functioning.

Skin Care and Precautions with Anticoagulants

- Anticoagulants are prescribed to thin the blood.
- As the blood is thinner the residents will ***bruise*** or ***bleed*** more easily if they sustain an injury however minor it might seem.
- It is therefore important that this risk is included in their skin, mobility, personal care and medication ***care plans*** and ***risk assessments*** to ensure that staff are aware of the importance of taking additional care when assisting the resident with care.
- Care must also be taken when ***brushing*** a residents ***teeth*** or assisting with shaving as there is a greater risk of causing an injury.
- As always any bruising sustained by a resident must be ***reported*** to the senior carer on duty and recorded in the daily records.

To contact us, email: hvccg.pmot1@nhs.net, or telephone: 01442 284088, or visit our webpage: http://hertsvalleysccg.nhs.uk/publications/pharmacy-and-medicines-optimisation/care-homes

NHS Herts Valleys Clinical Commissioning Group

Care Homes Newsletter

Issue 4, July 2018 Care Homes Newsletter for Care Home Staff, General Practitioners and Community Pharmacists

Interactions

Warfarin	Dabigatran	Rivaroxaban, Apixaban
Drug-food interactions: - Cranberry juice and alcohol interact with warfarin. - Some foods interact with warfarin (e.g. foods containing high amounts of Vitamin K). **Drug-drug interactions:** - Many interactions requiring additional INR monitoring.	**Drug-food interactions:** - There are no known food interactions. **Drug-drug interactions:** - Contraindicated with ketoconazole, cyclosporine, itraconazole, tacrolimus and dronedarone. - Use with caution with amiodarone, quinidine, verapamil, and ticagrelor. - Avoid with rifampicin, St John's Wort, carbamazepine or phenytoin. - SSRIs and SNRIs may increase the risk of bleeding.	**Drug-food interactions:** - There are no known food interactions. **Drug-drug interactions:** - Not recommended with concomitant ketoconazole, itraconazole, voriconazole, posaconazole or HIV protease inhibitors. - Use with caution with rifampicin, phenytoin, carbamazepine, phenobarbital or St John's Wort) due to risk of a loss of effectiveness.

Adverse reactions/side effects

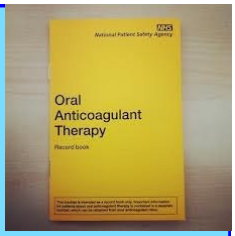
The main side effect of anticoagulants is ***bleeding***, because these medicines increase the time it takes for blood clots to form. Medical help should be sought if the resident experiences any of the following signs and symptoms:

- Passing blood in urine
- Black stools or blood in stools
- Severe bruising
- Prolonged nosebleeds
- Bleeding gums
- Vomiting blood or coughing up blood
- Sudden severe back pain
- Difficulty breathing or chest pain
- Heavy or increased menstrual or vaginal bleeding

Fast Facts

Storage:
Dabigatran capsules must not be removed from the original packaging (foil pack or bottle) and transferred to dosette boxes or other type of monitored dosage system.

Care Planning and Risk Assessment



Warfarin

- The dose prescribed will depend on INR result. All communication regarding INR results should be kept with the resident's yellow book, or equivalent anticoagulant clinic record log. These must be stored with the MAR chart for cross-referencing.
- It is essential that there is a safe system to ensure that the advised dosage is always checked prior to administration of a dose.
- If the resident is transferred to another care setting, the yellow book (or equivalent anticoagulant record log), dosing schedule, and a copy of the MAR chart must be sent with the resident.
- Warfarin should be taken at the same time each day.
- If a resident takes too much/ too little warfarin, seek medical advice.
- Care staff administering warfarin should make an accurate record of how much warfarin is administered each time. This can be done on the MAR chart or on additional forms.

NOACs

- Care must be taken to ensure that doses are given as prescribed; there are no reversal agents for the majority of these drugs.
- High adherence is necessary because duration of action is shorter than warfarin. Anticoagulant effect of NOACs fades after 12 to 24 hours after the last dose. Omitting/delaying doses could lead to a reduction in anticoagulant effect, resulting in a higher risk of blood clots.
- Some NOACs can be given once or twice a day, depending on why they are prescribed.
- The action to be taken if a resident refuses or misses a dose should be recorded in the resident's care plan e.g. contacting the pharmacist for advice about taking the next dose, and informing the GP.

To contact us, email: hvccg.pmot1@nhs.net, or telephone: 01442 284088, or visit our webpage: http://hertsvalleysccg.nhs.uk/publications/pharmacy-and-medicines-optimisation/care-homes