1 Reason for the review

Immediate release nifedipine capsules are associated with baroreflex sympathetic activation and tachycardia. In the 1990’s concerns were raised that short-acting nifedipine increased cardiovascular and overall mortality. The Summary of Product Characteristics for Adalat capsules state “For patients suffering from essential hypertension or chronic stable angina pectoris, and treated with fast release forms of nifedipine (Adalat capsules), a dose dependent increase in the risk of cardiovascular complications (e.g., myocardial infarction) and mortality may occur. Due to this, Adalat capsules should only be used for treatment of patients with essential hypertension or chronic stable angina pectoris if no other treatment is appropriate”.

Nifedipine capsules can still be used to treat Raynaud’s disease in patients without a history of hypertension or ischaemic heart disease.

Modified-release preparations of nifedipine are designed to produce a more gradual change in blood pressure and cause less sympathetic activation. Adipine XL is the NHS D&G Formulary choice; it is licensed for the prophylaxis of chronic stable angina and the treatment of hypertension. Amlodipine is an alternative formulary-choice calcium channel blocker which has a lower acquisition cost than Adipine XL.

Patients treated with nifedipine immediate-release capsules should be considered for a change to Amlodipine or Adipine XL.

2 Aim

To review all patients prescribed nifedipine immediate-release capsules to determine the indication for treatment.

To determine if the indication, or any co-morbidities, suggest that a long-acting nifedipine formulation or amlodipine would be more appropriate for the patient.

3 Standards

100% of patients prescribed nifedipine immediate-release capsule should have Raynaud’s as the indication for treatment.

0% of patients prescribed nifedipine immediate-release capsules should have a history of ischaemic heart disease or hypertension.

4 Inclusion Criteria

Search for all patients prescribed the following on repeat prescription within the last 6 months:

- Nifedipine 5mg or 10mg capsules
- Adalat 5mg or 10mg capsules

3 Exclusion Criteria/Special Circumstances

- Patient’s prescribed nifedipine for acute hypertension or angina attacks should be referred to the prescribing support pharmacist. The practice of biting a short-acting nifedipine capsule for the rapid reduction of acute hypertension is no longer recommended.
- any as defined by GP practice

4 Precautions
Nifedipine comes in a variety of formulations which are not considered interchangeable. Adipine XL 30mg daily is recommended for the treatment of severe hypertension and the prophylaxis of angina pectoris. The dose may be adjusted to a maximum of 90mg daily. Patients changed from nifedipine capsules to Adipine XL will be prescribed a dose equal to their total daily intake of nifedipine capsules. Patients who are prescribed nifedipine capsules 5mg tds should be considered for Adipine MR 10mg bd as the nearest equivalent dose. All patients should have their blood pressure and frequencies of angina attacks (if applicable) monitored to ensure these are the optimum doses.

Similarly, no exact dose equivalence data is available to direct the change from nifedipine capsules to amlodipine. However, some brands of long-acting nifedipine 30-60mg once daily have been shown to have comparable blood pressure lowering effect to amlodipine 5-10mg daily. Patients should be offered a dose at the similar end of the dosing schedule to their original drug. Monitoring will be required to ensure this is the optimum dose for the patient.

5 Methods

Implementation of audit in selected GP practices Prescribing Support Team is as follows:

- Protocol to be discussed with all GPs in the practice to ensure that agreement to proceed is reached
- Computer search of all patients according to the inclusion criteria
- Review of patients medical notes and repeat prescribing records to check for exclusion criteria. Completion of the data collection form.
- List of eligible patients to be checked by GP/GPs for any further alterations.
- Letter to be sent to eligible patients (templates attached) and switch to be undertaken on the computer system
- Admin staff in practices to be made aware of change of repeat medication
- Local pharmacies to be informed
- A BP review date to be set at 4 weeks post switch

6 Write-up

A report for the practice will include the number of switches made by the pharmacist/technician.

References:

4. Cheisi Ltd. Summary of Product Characteristics - Adipine XL 30mg and 60mg tablets, updated 02/03/2009 accessed at http://www.medicines.org.uk/EMC/medicine/20995/SPC/Adipine+XL+30mg+%26+60mg+tablets/ 26th July 2011
Change to Adipine XL

Patient name
Address

Dear Mr/Mrs __________

As part of a review of prescribing, NHS Dumfries and Galloway is currently reviewing all patients prescribed nifedipine capsules for blood pressure or angina.

Newer formulations of nifedipine provide smoother control of blood pressure throughout the day. These are designed to provide 24-hour control by slowly releasing the medicine.

We propose to change your prescription from Nifedipine 10mg capsules, 2 capsules three times daily to Adipine XL 60mg tablets, one tablet daily.

Or

We propose to change your prescription from Nifedipine 10mg capsules, 1 capsule three times daily to Adipine XL 30mg tablets, one tablet daily.

Or

We propose to change your prescription from nifedipine 5mg capsules, 2 capsule three times daily to Adipine XL 30mg tablets, one tablet daily.

Adipine XL will be available the next time you order your repeat medicines. Please finish your capsules one evening and start the new tablets the following morning.

Please make an appointment to have your blood pressure checked 2-4 weeks after starting the new tablet.

Should have any queries, please do not hesitate to contact the Surgery on the number above or, alternatively, you can contact a member of the Prescribing Support Team on ……….

Yours sincerely,


Name

Prescribing Support Technician
On behalf of the Doctors
Change to Amlodipine

Patient name
Address

Dear Mr/Mrs __________

As part of a review of prescribing, NHS Dumfries and Galloway is currently reviewing all patients prescribed nifedipine capsules for the treatment of blood pressure or angina.

Once daily medicines are preferred to the nifedipine capsules which are usually taken three times daily. This is because once daily medications can provide smoother control of your blood pressure over the whole day and are more convenient. With this in mind we have changed your medication from nifedipine capsules Xmg tds to Amlodipine tablets Xmg once daily.

Amlodipine will be available the next time you order your repeat medicines. Please finish your capsules one evening and start the new tablets the following morning.

Please make an appointment to have your blood pressure checked 4 weeks after starting the new tablet.

Should have any queries, please do not hesitate to contact the Surgery on the number above or, alternatively, you can contact a member of the Prescribing Support Team on .......... 

Yours sincerely,

Name

Prescribing Support Technician
On behalf of the Doctors
## Nifedipine immediate release capsules - Audit Data Collection Sheet

<table>
<thead>
<tr>
<th>SURGERY: .................................................</th>
<th>DATE: ...............</th>
<th>UNDERTAKEN BY: .....................................................................</th>
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<tbody>
<tr>
<td>Patients name/DOB</td>
<td>Nifedipine capsules: Dose, frequency</td>
<td>Indication</td>
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