Epsom and St. Helier University Hospitals NHS Trust

NHS Surrey

WORKING IN PARTNERSHIP WITH

Information sheet

Ivabradine

Treatment of Angina in Chronic Stable Angina

NHS Surrey's Medicines Management Committee classification: **Amber***

Amber*: Drugs that require initiation by a specialist in secondary / tertiary care but due to more widespread experience in primary care GPs are generally happy to prescribe on specialist advice without the need for a formal shared care protocol. This information sheet is available on the internet (**www.surreyhealth.nhs.uk**) forming part of Surrey PCT's traffic light document giving GPs appropriate advice / guidance and is not required to be sent to the GP with the clinic letter. A minimum of one month supply of medication will be provided by the initiating consultant.

RESPONSIBILITIES and ROLES

Specialist responsibilities
1. Assess the patient to determine suitability for prescribing of ivabradine; ensuring other treatment options have been fully explored. 2. Initiate treatment with Ivabradine (initial 1 month supply from Acute Trust Pharmacy).• 3. Provision of advice to patient and GP on further management of treatment for optimum control of symptoms and related issues such as drug interactions. 4. Agree need for and frequency of review by secondary care in consultation with GP. Assess continued appropriateness of ivabradine and advise GP of any changes and additions to prescribed therapy if necessary. 5. Evaluating any concerns arising from treatment, including serious adverse events and drug interactions advising on appropriate action. Responding to any queries from the patient or GP relating to treatment of ivabradine.

General Practitioner responsibilities
1. Subsequent prescribing of ivabradine at the dose recommended. 2. Monitoring the patient's overall health and well being. 3. Observing patient for evidence of ADRs/abnormalities induced by ivabradine and raising with secondary care clinician if necessary. 4. Reviewing the patient on a regular basis to monitor heart rate and general condition in line with their usual appointments as deemed appropriate by the CHD register. If the resting heart rate falls below 50 beats per minute then consider reducing dose and seek opinion of referring consultant if necessary. If there is evidence of atrial fibrillation seek advice from referring consultant. 5. Ensuring advice is sought from the secondary care clinician if there is any significant change in the patient's physical health status. 6. Report any serious adverse events to the Consultant.

Patient's / Carer's roles	
1	Ask the specialist or GP for information, if he or she does not have a clear understanding of the treatment.
2	Share any concerns in relation to treatment with Ivabradine
3	Tell the specialist or GP of any other medication being taken, including over-the-counter products.
4	Read the patient information leaflet included with your medication and report any side effects or concerns you have to the specialist or GP

BACK-UP ADVICE AND SUPPORT

Contact details	Specialist	Telephone No.	Email address:
Specialist:	Dr J Foran	020 8296 3653	John.foran@esth.nhs.uk
	Dr R Bogle	020 8296 2782	Richard.bogle@esth.nhs.uk
	Dr O Odemuyiwa	01372 735128	Olusola.odemuyiwa@esth.nhs.uk
	Dr U Prasad		Usha.prasad@esth.nhs.uk
Hospital Pharmacy:	Epsom Hospital	01372 735735 ext 6073	
	St Helier Hospital	020 8296 2466	

Supporting Information

Ivabradine is an novel antianginal therapy licensed for use in patients with chronic stable angina in sinus rhythm, who have a contra-indication or intolerance to beta-blockers. It is a pure heart rate lowering agent and has been shown to be as effective as beta-blockers in anti-anginal and anti-ischaemic activity, but as yet is not supported by cardiovascular outcomes data.

Ivabradine should only be initiated by a consultant cardiologist or a primary care angina specialist, who should issue the first prescription. Baseline blood pressure and pulse must be provided to GP to aid monitoring.

Contra-indications	Cautions
– Sick sinus syndrome – Bradycardia (resting heart rate <60bpm) – Cardiogenic shock and acute MI – Within 4 weeks of CVA – Sino-atrial block & 3rd degree AV-block – Moderate to severe heart failure (NYHA class III-IV) – Congenital QT syndrome – Pacemaker dependent patients – Unstable angina – Pregnancy and lactation	– Pre-existing cardiac arrhythmias – Concurrent HR lowering agents – Mild heart failure (NYHA class I-II) – Post-CVA – Retinis pigmentosa – Hypotension (avoid if BP < 90/50mmHg) – Hepatic insufficiency (avoid if severe) – Severe renal insufficiency (CrCl<15ml/min)

Commonly Used Interacting Drugs (See BNF for a full list of drug interactions)

- Amiodarone or disopyramide – increased risk of ventricular arrhythmias
- Macrolide antibiotics, particularly clarithromycin and erythromycin – avoid concomitant use
- Imidazole anti-fungals, particularly ketoconazole and itraconzole – avoid concomitant use
- Nelfinavir and ritonavir – avoid concomitant use
- Sotalol – increased risk of ventricular arrhythmias
- Calcium channel blockers, specifically diltiazem and verapamil – avoid concomitant use
- Mefloquine – avoid concomitant use

Initiation: Ivabradine is usually initiated at a dose of 5mg twice daily.

After 3 – 4 weeks dose may be increased to 7.5mg twice daily if required for greater symptom control on advice of hospital consultant. If the patient is elderly or 5mg twice daily is not tolerated, the dose can be reduced to 2.5mg twice daily.

Monitoring

- Obtain baseline BP, pulse before initiation and after each change in dose
- In the absence of adverse effects, review within 4 weeks and consider increasing the dose if required for better symptom control
- Visual symptoms were the most common adverse effects reported. Luminous phenomena were reported in 15% of patients and therefore new patients should be warned about this potential transient side effect.
- Other potential side effects include bradycardia, AV 1st degree block, ventricular extrasystoles, headache and dizziness.

Ivabradine is still a black triangle drug and therefore all adverse effects should be reported to the CSM using the yellow card system, even if well documented.

This information sheet does not replace the SPC, which should be read in conjunction with this guidance. Prescribers should also refer to the appropriate paragraph in the current edition of the BNF.

The GP has the right to refuse to agree to shared care, in such an event the total clinical responsibility will remain with the consultant.