

# RGH Pharmacy E-Bulletin

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A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

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## Cilostazol

Intermittent claudication is reversible muscle ischaemia that occurs while walking, characterised by a cramping or aching pain which is relieved by rest. This can lead to impaired exercise performance and a decrease in overall function, ultimately affecting quality of life. The most effective treatment for IC is a supervised exercise program and there is a large amount of evidence to support this strategy. When this method is unable to provide adequate benefit pharmacological therapy may be indicated.

Cilostazol (Pletal<sup>®</sup>) is a selective phosphodiesterase inhibitor that is relatively specific for type III phosphodiesterase, and is used for the management of intermittent claudication. This drug has been approved in the United States and the United Kingdom for around 10 years and has recently become available in Australia. The only other drug in Australia specifically marketed for intermittent claudication is oxpentifylline, but studies have resulted in conflicting evidence for the efficacy of that agent.

Cilostazol has antiplatelet and vasodilatory effects; it has also been shown to have the additional benefit of lowering triglycerides by roughly 15% and increasing HDL by 10%, significantly more compared to placebo. A meta-analysis\* of 8 trials (7 from the US and 1 from the UK) has been conducted, where 2702 patients suffering from moderate to severe intermittent claudication were treated with cilostazol for 12 - 24 weeks. The results from this research showed an increase in maximal walking distance of 50% compared with 20% in the placebo group, and an increase in pain free walking distance of 67% (placebo 40%). Approximately 16% of subjects withdrew from the study due to an adverse effect associated with cilostazol, compared with 9% in the placebo group. The most commonly reported adverse effects in the cilostazol treated patients were headache (occurring in about 30%), palpitations and diarrhoea. Oxpentifylline was used in two of the eight trials and its efficacy was comparable to placebo.

The recommended dosage of cilostazol is 100 mg twice daily, patients can be started on a lower dose of 50 mg twice daily and the dose titrated upwards after one to two weeks (to minimise the risk of side effects).

Use of cilostazol is contraindicated if the estimated creatinine clearance is less than 25ml/min, or if there is any grade of congestive cardiac failure. Patients taking drugs that inhibit the CYP3A4 or 2C19 hepatic isoenzymes, and those with active bleeding or a predisposition to bleeding should also not be treated with cilostazol. Caution is also advised when co-administering with antiplatelet agents, anticoagulants, nitrates and other phosphodiesterase inhibitors.

Cilostazol is not available for subsidised supply though the on the Pharmaceutical Benefits Scheme in Australia, so patients will either need to pay full price for a private script or obtain it from a hospital that is willing to fund the cost.

\* Meta-analysis results outlined above are for 100mg twice daily dosage, 50mg twice daily and 150mg twice daily were also included in some studies.

This E-Bulletin is based on work by Laura Brook, Senior Clinical Pharmacist, RGH.

**FOR FURTHER INFORMATION CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: [chris.alderman@health.sa.gov.au](mailto:chris.alderman@health.sa.gov.au)**  
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