



## Service Priorities and Programmes Electronic Presentations

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### **Utilisation review of clopidogrel (plavix®) for cardiovascular patients in the hospital authority (HA)**

*The Pharmacy Clinical Services Subcommittee of CoC (Pharmaceutical Services)  
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#### **Keywords:**

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#### **Introduction**

Aspirin and Clopidogrel dual antiplatelet treatment is commonly used for the secondary prevention of atherothrombotic events and to reduce the risk of ischaemic complications after percutaneous coronary intervention. Clopidogrel is prescribed for varying lengths of time depending on the type of coronary stent implanted and the acute coronary syndrome (ACS). The combination is also associated with increased risk of gastrointestinal (GI) bleeding. Co-administration of a gastroprotective agent is recommended to reduce the risk of upper GI bleeding in high risk patients.

#### **Objectives**

(1) To examine the prescribing pattern of clopidogrel for cardiovascular patients; (2) to evaluate whether clopidogrel was prescribed according to the HA Drug Formulary (HADF); (3) to examine the adverse effects that may be associated with clopidogrel / aspirin therapy; and (4) to assess the use of gastroprotective agents with clopidogrel / aspirin.

#### **Methodology**

Electronic patient records (ePR) of cardiovascular patients who were prescribed and dispensed clopidogrel as special drugs for discharge / Specialist Out-Patient Clinic prescriptions from 1st July 2010 to 31st August 2010 were selected. The indication and duration of clopidogrel and the co-administration of gastroprotective agents were recorded. Adherence to the HADF operation guideline was determined.

#### **Result**

Results A total of 839 cases from 22 hospitals were reviewed by pharmacists. 83% of clopidogrel cases were prescribed according to the indications suggested in the HADF guideline. 50% of clopidogrel cases were prescribed according to the duration recommended in the HADF guideline. 27% and 24% of patients were prescribed clopidogrel for less than 1 month and more than 12 months respectively. 80% of patients were prescribed gastroprotective agents at the time of the review. Gastroprotective treatment should be optimized in those who were at higher risk of developing adverse events. 246 patients were prescribed with proton-pump inhibitors

(PPI) as one of the latest gastroprotective agents. Amongst those, 4% were either omeprazole or esomeprazole. Discussion Evidence-based guidelines recommend continuing treatment with clopidogrel for 1 to 12 months depending on the ACS and the type of stent employed. The most common reasons for non-adherence to the HADF guidelines were: delayed PCI or CABG, and ongoing angina post coronary revascularization. In patients who had been taking clopidogrel for a longer term and are at risk of developing adverse events should have their therapies reviewed regularly. PPIs are recommended in patients with high risk of GI bleeding and who require antiplatelet therapy There have been studies suggesting that the PPIs may reduce the antiplatelet effects of clopidogrel and the strongest evidence for an interaction is between omeprazole and clopidogrel. The concomitant use of omeprazole or esomeprazole with clopidogrel should therefore be discouraged. Pharmacist could play an integral role in the monitoring of drug treatment and recommendation.