Clopidogrel / PPI interaction

In May 2009, the EU Committee for Medicinal products for Human Use (CHMP) concluded that concomitant use of any Proton Pump Inhibitor (PPI) with clopidogrel should be avoided unless considered essential. This was based on pharmacokinetic, pharmacodynamic, and some clinical outcome data, which demonstrated that omeprazole competitively inhibits the CYP2C19 isoenzyme (which metabolises clopidogrel to its active metabolite); reduces the ability of clopidogrel to inhibit platelet aggregation; and reduces the beneficial effect of clopidogrel in patients.

Since then, new evidence has cast some doubt on the clinical relevance of possible interactions between clopidogrel and PPIs. However, the evidence in favour of an interaction with omeprazole and esomeprazole is still a concern.

In April 2010 the MHRA updated their guidance to state that the ‘use of either omeprazole or esomeprazole with clopidogrel should be discouraged’. The current evidence does not support extending this advice to other PPIs'.

Local Guideline:

Patient prescribed clopidogrel / PPI

Does patient have a definite indication for PPI? (see GHT oral PPI guideline criteria)

Yes
Lansoprazole is the PPI of choice during concomitant treatment with clopidogrel (pantoprazole may be considered if patient intolerant of lansoprazole or previously taking high dose PPI treatment e.g. omeprazole 20mg bd)

No
Switch PPI to ranitidine or stop PPI according to indication (see GHT oral PPI guideline)