Single antiplatelet therapy for patients with previous gastrointestinal bleeds
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CRD summary
This review compared efficacy of aspirin plus proton pump inhibitor versus clopidogrel in patients with a previous gastrointestinal bleed who required single antiplatelet therapy. The authors concluded that limited literature supported that clopidogrel was not equivalent to aspirin plus proton pump inhibitor. Weaknesses in the review process and lack of data suggest that these conclusions may not be reliable.

Authors' objectives
To compare the efficacy of aspirin in addition to a proton pump inhibitor with clopidogrel in patients with a previous gastrointestinal bleed and who required single antiplatelet therapy.

Searching
Databases EMBASE (1980 to January 2008) and PubMed (1966 to January 2008) and the Internet search engine Google were used to identify studies in English. Search terms were reported. Reference lists were examined for additional papers.

Study selection
Randomised controlled trials (RCTs) of aspirin compared with clopidogrel in patients with previous gastrointestinal bleed were eligible for inclusion. Included studies had to describe the recurrence of gastrointestinal bleed. The patients in the included studies were mainly male and Asian. Patients received aspirin (80mg to 100mg daily) with either esomeprazole or clopidogrel (75mg daily). Indications for aspirin were coronary heart disease, cerebrovascular insufficiency, peripheral vascular disease, ischaemic heart disease and stroke/transient ischaemic attack in the included studies. Follow-up was 52 weeks in one study and median 12 months in the other.

The authors stated neither how the papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors stated neither how the data were extracted for the review nor how many reviewers performed the data extraction.

Methods of synthesis
The studies were presented in a narrative synthesis.

Results of the review
Two RCTs were included in the review (n=490).

Both RCTs found that gastrointestinal bleed recurrence was more common in the clopidogrel group compared with the aspirin group: 8% versus 0.7% and 13.6% versus 0% (p<0.0019 in both studies).

Authors' conclusions
The limited literature available supported that clopidogrel was not equivalent to aspirin in addition to proton pump inhibitor in the patient population studied.

CRD commentary
The review question was clear and inclusion criteria were defined for study design, participants, intervention and outcomes. However, the inclusion criteria for intervention (aspirin versus clopidogrel) did not reflect the review aim (aspirin plus proton pump inhibitor versus clopidogrel). The authors did not report any attempt to identify unpublished studies and only sought English-language studies, which increased the possibility of language and publication biases. The review process was not described so it was unknown whether steps were taken to reduce possible of reviewer error and bias. Validity of the included studies was not assessed, so the reliability of the results of these studies could not be determined. The narrative synthesis appeared appropriate given the paucity of data and details of the included studies were available. Weaknesses in the review process and lack of data suggest that the authors' conclusions may not be reliable.

Implications of the review for practice and research

**Practice:** The authors stated that aspirin (dose 80mg to 100mg) plus proton pump inhibitor (esomeprazole 20mg once daily) should be used in medically managed patients who required single antiplatelet therapy but had a prior gastrointestinal bleed while on aspirin.

**Research:** The authors stated that further research regarding dual antiplatelet therapy and a proton pump inhibitor was required.

**Funding**
Not stated.

**Bibliographic details**

**PubMedID**
18413689

**DOI**
10.1345/aph.1K566

**Other URL**
http://www.theannals.com/cgi/content/full/42/6/836

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Aged; Aspirin /adverse effects /therapeutic use; Cardiovascular Diseases /prevention & control; Drug Therapy, Combination; Female; Gastrointestinal Hemorrhage /chemically induced; Humans; Male; Platelet Aggregation Inhibitors /adverse effects /therapeutic use; Proton Pump Inhibitors /therapeutic use; Randomized Controlled Trials as Topic; Recurrence; Ticlopidine /adverse effects /analogs & derivatives /therapeutic use

**AccessionNumber**
12008107635

**Date bibliographic record published**
02/03/2009

**Date abstract record published**
13/01/2010

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract
contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.