

# Clinical Use of Evidence-Based Medicine - Clinical Questions

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## Is Low-Dose Aspirin a Better Choice in Patients with Coronary Artery Disease and Bleeding Risks?

### Patient

An 80-year-old man with a past medical history significant for coronary artery disease and upper gastrointestinal (GI) bleeding presented complaining of substernal chest pain. He was previously instructed to take an 81 mg aspirin daily to lessen the risk of recurrent GI bleeding when compared to a 325 mg aspirin.

### Clinical Question

In a patient with a history of GI bleeding and coronary artery disease, does an 81 mg aspirin daily decrease the risk of GI bleeding compared to a 325 mg aspirin daily?

### Search Strategy

1. Cochrane Database of Systematic Reviews and Database of Abstracts of Reviews of Effects (DARE) (searched October 2006 via Wiley Interscience)
  - a. "Aspirin" or "ASA"
  - b. "Bleed"
  - c. Combine (a) and (b)
    - i. No applicable results found
2. ACP Journal Club (searched October 2006)
  - a. "Aspirin"
  - b. "Gastrointestinal or GI"
  - c. "Bleed"
  - d. Combine (a) (b) and (c)
    - i. One article that met ACP criteria for inclusion but was a relatively poor quality systematic review
    - ii. Serebruany VL, et al. Analysis of risk of bleeding complications after different doses

of aspirin in 192,036 patients enrolled in 31 randomized controlled trials. *Am J Cardiol.* 2005;95:1218-1222.

3. PubMed (searched October 2006)
  - a) "Aspirin" (MeSH heading)
  - b) "Hemorrhage" (MeSH heading)
  - c) "Coronary disease" (MeSH heading)
  - d) "Dose" or "Dosage"
  - e) Combine (a) (b) (c) and (d)
  - f) Limit (e) to "therapy, narrow" (clinical queries) and English
    - i. 45 studies, one of which addressed our question
    - ii. Peters, et al. Effect of aspirin dose when used alone or in combination with clopidogrel in patients with acute coronary syndromes: Observations from the clopidogrel in unstable angina to prevent recurrent events (CURE) study. *Circulation.* 2003; 108(14):1682-1687.

### Study Characteristics

- CURE Trial background
  - o Comparison of ASA alone versus ASA plus clopidogrel in patients with acute coronary syndrome (ACS) without ST-segment elevation
  - o Multi-center, multi-national, randomized controlled trial
  - o Large study population – 12,562 patients
  - o Inclusion criteria
    - Symptoms of ACS in past 24 hours
    - No ST-segment elevation >1mm
    - EKG evidence of ischemia or cardiac enzymes twice the upper limit of normal
  - o Interventions
    - Random assignment to clopidogrel or placebo
    - ASA given to all patients at a dose decided by the local investigator (recommended 75mg–325mg per study protocol)
  - o Primary end points: cardiovascular death, myocardial infarction, stroke, or refractory ischemia at 1 year
  - o Secondary end points: bleeding events
    - Life-threatening bleed—fatal, decrease in he-

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