Amiodarone Trials Meta-Analysis Investigators. Effect of prophylactic Amiodarone on mortality after acute myocardial infarction and in congestive heart failure: meta-analysis of individual data from 6500 patients in randomized trials.


**BACKGROUND:** There have been 13 randomised controlled trials of prophylactic amiodarone in patients with recent myocardial infarction (MI) or congestive heart failure (CHF). None of these was powered to detect a mortality reduction of about 20%. We undertook a meta-analysis, based on data from individual patients, to provide a more sensitive and accurate assessment of the benefits and risks of prophylactic amiodarone.

**METHODS:** Individual data from the studies were abstracted according to a predefined protocol. The summary odds ratios were calculated according to standard methods.

**FINDINGS:** There were eight post-MI and five CHF trials; nine trials were double-blind and placebo-controlled, and four compared amiodarone with usual care. 6553 patients were randomly assigned treatment, of which 78% were in post-MI trials and 22% in CHF trials. 89% had had previous MI. The mean left-ventricular ejection fraction was 31%, and median frequency of ventricular premature depolarisation 18 per h. Total mortality was reduced by 13% (odds ratio 0.87 [95% CI 0.78-0.99], p = 0.030) based on classic fixed-effects meta-analysis and by 15% (0.85 [0.71-1.02], p = 0.081) with the more conservative random-effects approach. Arrhythmic/sudden death was reduced by 29% (0.71 [0.59-0.85], p = 0.0003). There was no effect on non-arrhythmic deaths (1.02 [0.87-1.19], p = 0.84). There was no difference in treatment effect between post-MI and CHF studies. The risk of arrhythmic/sudden death in control-group patients was higher in CHF than in post-MI studies (10.7 vs 4.1%), and the best single predictor of risk of arrhythmic/sudden death among all patients was symptomatic CHF. The excess (amiodarone minus control) risk of pulmonary toxicity was 1% per year.

**INTERPRETATION:** Prophylactic amiodarone reduces the rate of arrhythmic/sudden death in high-risk patients with recent MI or CHF and this effect results in an overall reduction of 13% in total mortality.