



Letters

Authors' reply on aspirin for primary prevention

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EDITOR—By implying disagreements with our study¹ which are largely misplaced or non-existent, Ramsay et al may have confused doctors who are deciding about aspirin in the primary prevention of coronary heart disease.² We pointed out that the British Hypertension Society,³ the hypertension optimal treatment trial,⁴ and our trial¹ all say that aspirin treatment should be started only when blood pressure is satisfactory. Since both aspirin and raised blood pressure are risk factors for cerebral haemorrhage, this seems to be good clinical practice anyway.

In citing the physicians' health study from the United States⁵ Ramsay et al (despite their reservations about subgroup analyses, which we also drew attention to) did not quote the non-significant trend for its finding on response according to blood pressure ($P=0.48$) compared with the interaction term for the association of pressure on entry with response to aspirin in our trial ($P=0.0004$). The published data from the hypertension optimal treatment trial did not show response to treatment according to pressure at entry.⁴ Readers of our paper will find that the other details Ramsay et al discussed also have little bearing on the main issues.

Overall, aspirin undoubtedly reduces the risk of (mainly non-fatal) myocardial infarction by some 30% in primary prevention⁶—perhaps more in some, less in others, and in this respect we question the assumption by Ramsay et al that the benefit is necessarily constant. Our results suggest otherwise as far as blood pressure is concerned. Ramsay et al did not draw attention to the risk of serious bleeding, against which any benefit has to be balanced, although this was alluded to in the British Hypertension Society guidelines. These indicated that aspirin in primary prevention should be used only in high risk individuals.³ We agree with this while re-emphasising the need to bring blood pressure to satisfactory levels first, whatever the degree of coronary risk. There is now evidence of an increase in haemorrhagic stroke due to aspirin in primary prevention besides the evidence we cited.⁶ This evidence, together with the risk of serious gastrointestinal bleeding that we also discussed, means that the balance between benefit and hazard even in men at moderately increased risk of heart attacks is debatable and that only those at quite substantial risk should be treated in the setting of primary prevention.

References

- 1.Meade TW, Brennan PJ, on behalf of the MRC General Practice Research Framework.Determination of who may derive the most benefit from aspirin in primary prevention: subgroup results from a randomised controlled trial.*BMJ*2000; **321**:13–17. (1 July.)

2. Ramsay LE, Sanmuganathan PS, Wallis EJ, Jackson PR. Aspirin for primary prevention. *BMJ* 2000; **321**:1472. (9 December.)
3. Ramsay LE, Williams B, Johnston GD, MacGregor GA, Poston L. British Hypertension Society guidelines for hypertension management 1999: summary. *BMJ* 1999; **319**:630–635.
4. Hansson L, Zanchetti A, Carruthers SG, Dahlof B, Elmfeldt D, Julius S, et al. Effects of intensive blood-pressure lowering and low-dose aspirin in patients with hypertension: principal results of the Hypertension Optimal Treatment (HOT) randomised trial. *Lancet* 1998; **351**:1755–1762.
5. Steering Committee of the Physicians' Health Study Research Group. Final report on the aspirin component of the ongoing physicians' health study. *N Engl J Med* 1989; **321**:129–135.
6. Herbert PR, Hennekens CH. An overview of the 4 randomised trials of aspirin therapy in the primary prevention of vascular disease. *Arch Intern Med* 200; **160**:3123–3127.