**ASPIRIN IN THE PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE: NEED FOR INDIVIDUAL CLINICAL JUDGMENTS**

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**Background:**In secondary prevention, among patients who have survived a wide range of prior occlusive vascular events, as well as during acute myocardial infarction and occlusive stroke, aspirin produces absolute reductions on clinical cardiovascular events that far exceed any absolute risks on major bleeding. In primary prevention, the absolute benefits are far lower so the balance is less clear.

**Methods:**Meta-analyses of primary prevention trials designed to test benefits and risks of aspirin including serious vascular events (myocardial infarction, stroke, or vascular death) and major bleeds.

**Findings:**Aspirin yielded a significant 12% reduction in serious vascular events (0·51% aspirin *vs* 0·57% control per year, p=0·0001), due mainly to a reduction of 22% in non-fatal myocardial infarction (0·18% *vs* 0·23% per year, p<0·0001). The net effect on either stroke (0·20% *vs* 0·21% per year, p=0·4) or vascular mortality (0·19% *vs* 0·19% per year, p=0·7) was not significant. Aspirin significantly increased major gastrointestinal and extracranial bleeds (0·10% *vs* 0·07% per year, p<0·0001). The benefits and risks were similar for men and women. Finally, many major risk factors for clotting were also risk factors for bleeding.

**Interpretation:**In primary prevention, aspirin produces a statistically significant reduction in occlusive vascular events that needs to be weighed against increases in major bleeds. Specifically, the average absolute risk of subjects randomized in the published trials was so low that it is not possible to get reliable estimates of the benefit to risk ratio for moderate risk subjects. Since the totality of evidence is incomplete, it is appropriate to remain uncertain. Pending the results of ongoing trials, clinicians may wish to weigh the benefit on non-fatal myocardial infarction against the risk of a non-fatal bleed. Since general guidelines for aspirin are premature, the appropriate and judicious prescription of aspirin by clinicians should be based on individual judgments that weigh absolute benefits against absolute risks.