

Risk/benefit of aspirin in primary prevention

The most recent (2009) United States Preventive Services Task Force (USPSTF) guidelines recommend considering a patient's cardiovascular risk before recommending aspirin for primary prevention. Tools for assessing a patient's 10-year risk of coronary heart disease (CHD) and stroke can be found at www.med-decisions.com and <http://www.westernstroke.org/PersonalStrokeRisk1.xls> respectively. Current USPSTF recommendations are provided in the following figure.

Shared decision making is strongly encouraged with individuals whose risk is close to (either above or below) the estimates of 10-year risk levels indicated below. As the potential cardiovascular disease (CVD) benefit increases above harms, the recommendation to take aspirin should become stronger.

To determine whether the potential benefit of MIs prevented (men) and strokes prevented (women) outweighs the potential harm of increased GI hemorrhage, both 10-year CVD risk and age must be considered.

Men		Women	
10-year CHD risk		10-year stroke risk	
Age 45-59 years	≥ 4%	Age 55-59 years	≥ 3%
Age 60-69 years	≥ 9%	Age 60-69 years	≥ 8%
Age 70-79 years	≥ 12%	Age 70-79 years	≥ 11%

The table above applies to adults who are not taking NSAIDs and who do not have upper GI pains or a history of GI ulcers.

NSAID use and history of GI ulcers raise the risk of serious GI bleeding considerably and should be considered in determining the balance of benefits and harms. NSAID use combined with aspirin use approximately quadruples the risk of serious GI bleeding compared to the risk with aspirin use alone. The rate of serious bleeding in aspirin users is approximately 2-3 times higher in patients with a history of GI ulcers.

Reproduced in part from: Aspirin for the Prevention of Cardiovascular Disease. Clinical Summary of US Preventive Services Task Force Recommendation. Available at <http://www.ahrq.gov/clinic/uspstf09/aspirincvd/aspcvdsun.pdf>

Comparative efficacy, risks, and costs of antiplatelet therapies

Regimen	Condition (evidence)	Comparison	Efficacy	Risks	Cost
Monotherapy	Recent vascular disease (CAPRIE)	Clopidogrel v. aspirin	↑	↓	↑
Dual v. monotherapy	NSTEMI (CURE)	Clopidogrel + aspirin v. aspirin	↑	↑	↑
	STEMI (COMMIT, CLARITY)	Clopidogrel + aspirin v. aspirin	↑	↔	↑
	PCI (CREDO)	Clopidogrel + aspirin v. aspirin	↑	↑	↑
	Stroke (MATCH, CHARISMA, ESPRIT, PROfESS)	Clopidogrel + aspirin v. clopidogrel	↔	↑	↑
		Clopidogrel + aspirin v. aspirin	↔	↑	↑
		Dipyridamole + aspirin v. aspirin	↑	↔	↑
		Dipyridamole + aspirin v. clopidogrel	↔	↑	↔
	Prevention (CHARISMA)	Clopidogrel + aspirin v. aspirin	↔	↑	↑
Dual therapy	STEMI with planned PCI (TRITON)	Prasugrel + aspirin v. clopidogrel + aspirin	↑	↑	↔

Full explanations and references are contained in the evidence document which accompanies this card. These are general recommendations only; specific clinical decisions must be made by the treating physician based on assessment of the individual patient.