# THE

# ROLE OF ASPIRIN

# IN

# HYPERTENSION

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## Introduction

There has been a lot of interest in the use of low dose aspirin as an adjunct in the management of hypertension. Consequently, the following information was obtained from http://cks.library.nhs.uk

## What is the role of aspirin in hypertension?

There is good evidence that daily doses of aspirin 75–150mg daily are as effective as higher doses for cardiovascular protection, but are less likely to cause serious gastrointestinal adverse effects. The dose of aspirin most commonly used in the UK is 75 mg daily. Higher doses may be recommended by some specialists following coronary artery bypass surgery (CABG), as there is weak evidence that medium-dose aspirin may be more effective than low-dose aspirin at reducing the incidence of graft occlusion in the first year.

## Question:

What is the role of aspirin in hypertension, should it be recommended and what dose is appropriate?

## Answer:

Prodigy guidance on Hypertension (1) has a section on aspirin that states:

**Primary prevention**

The risk/benefit ratio for prescribing aspirin is most favourable in people at high risk of CHD (Coronary Heart Disease).

PRODIGY recommends aspirin for people with a CHD risk of 30% or more over 10 years, and that aspirin should be considered in people with a CHD risk of 15% or more over 10 years which includes the majority of hypertensive men over the age of 65 years.

The British Hypertensive Society guidelines recommend low-dose aspirin for people over the age of 50 years with an estimated CHD risk of 15% or greater over 10 years in whom BP (Blood Pressure) is controlled to the audit standard. The National Service Framework (NSF) for CHD provides no recommendations as evidence about whether the benefits of aspirin outweigh the harms was considered to be inconclusive at the time it was drawn up [DH, 2000]. More recently the National Institute for Clinical Excellence (NICE) has advised that aspirin 75 mg daily should be offered to hypertensive people with Type 2 diabetes and a 10-year CHD risk greater than 15% [NICE, 2002]. Recently published US guidelines also recommend aspirin for individuals with high risk of CHD [US Preventative Services Task Force, 2002].

The following table shows estimated benefits and harms of aspirin based on 1000 people receiving aspirin for 5 years and a relative risk reduction of 28% for CHD events in those who received aspirin [Hayden et al, 2002].

| Benefits and harms | Baseline risk for CHD over 5 yrs | | |
|---|---|---|---|
| | **1%** | **3%** | **5%** |
| Total mortality | No effect | No effect | No effect |
| Number of CHD events avoided (95% CIs) | 3(1-4) | 8(4-12) | 14 (16-20 |
| Number of major haemorrhagic stokes precipitated (95% CIs) | 1(0-2) | 1(0-2) | 1(0-2) |
| Number of major gastrointestinal bleeding events (95% CIs) | 3(2-4) | 3(2-4) | 3(2-4) |

**Secondary prevention**

Aspirin 75 mg daily is indicated if there is evidence of established cardiovascular disease (myocardial infarction, angina, non-haemorrhagic cerebrovascular disease, peripheral vascular disease, or atherosclerotic renovascular disease).

(1) http://www.prodigy.nhs.uk/guidance.asp?gt=Hypertension

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