In a large-scale placebo-controlled trial in which about 13,000 patients at risk of a first cardiovascular event were followed for approximately six years, low-dose rosvastatin and the combination of candesartan + hydrochlorothiazide did not reduce total mortality or cardiovascular mortality.

Apart from dietary or lifestyle changes, some treatments have proven efficacy in certain groups of patients in reducing the risk of a first cardiovascular event, i.e. for primary prevention (1,2). These include blood pressure-lowering drugs used in hypertensive patients.

A large-scale, randomised, double-blind trial, the HOPE-3 trial, has evaluated two treatments in comparison to placebo for the prevention of a first cardiovascular event, i.e. for primary prevention (1,2). In comparison to the placebo group, there was an increase in muscle disorders in the rosvastatin group (5.8% versus 4.7%, p = 0.005); and symptomatic hypotension, dizziness and light-headedness, leading to treatment discontinuation in the candesartan + hydrochlorothiazide combination and placebo in the incidence of this outcome (3,4,5).

Findings do not justify routinely exposing all patients at cardiovascular risk due to tobacco use or family history to the adverse effects of these drugs.

In practice
The addition of candesartan + hydrochlorothiazide, without taking blood pressure into account, was not effective in primary cardiovascular prevention for patients with several cardiovascular risk factors. In this trial, the addition of rosvastatin, irrespective of LDL-cholesterol levels, prevented one vascular event for every 91 patients treated for nearly 6 years, without reducing either cardiovascular mortality or total mortality. These findings do not justifiably expose all patients at cardiovascular risk due to tobacco use or family history to the adverse effects of these drugs.

Primary prevention of cardiovascular disease
Statin and hypotensive drugs: not for everyone

- In a large-scale placebo-controlled trial in which about 13,000 patients at risk of a first cardiovascular event were followed for approximately six years, low-dose rosvastatin and the combination of candesartan + hydrochlorothiazide did not reduce total mortality or cardiovascular mortality.

A-For inclusion, patients needed to have at least one or two of the following cardiovascular risk factors: waist-to-hip ratio greater than or equal to 0.85 for women and 0.90 for men; low HDL-cholesterol (less than 0.50 g/l (1.3 mmol/l) in women and 0.39 g/l (1.0 mmol/l) in men); regular tobacco use within the previous 5 years; abnormal blood glucose levels or diabetes treated with diet only; family history of premature coronary disease; microalbuminuria or moderate renal insufficiency without hypertension, with glomerular filtration rate between 45 ml/min and 60 ml/min (ref 5).

Selected references from Prescrire’s literature search
1- Prescrire Editorial Staff “Treating essential hypertension. The first choice is usually a thiazide diuretic.” Prescrire Int 2014; 23 (152): 215-220.