

The Cholesterol Treatment Trialists' (CTT) Collaborators completed a prospective meta-analysis in 14 randomised trials of statins, published in 2005.²⁸¹ This analysis included data from 90,056 (N=45,054 allocated a statin, N=45,002 controls) participants with diabetes. The studies included were published over 10 years from 1994–2004.

A meta-analysis was completed which considered pharmacological lipid-lowering therapy in Type 2 diabetes. This analysis included 14 studies (total N=17,749), six primary prevention studies (N=11,025) and eight secondary prevention studies (N=6,724). The studies included were published from 1987–2003.²⁸²

14.2.3 Health economic methodological introduction

No health economic papers were identified.

The health economic analysis performed for statin therapy (appendix D, available at www.rcplondon.ac.uk/pubs/brochure.aspx?e=247) addressed the question of target levels in part. This is considered further in the section on statin therapy.

14.2.4 Evidence statements

▷ Outcomes

CTT collaborators

The CTT collaborators meta-analysis identified that there is an approximately linear relationship between the absolute reductions in LDL-C found in the 14 studies and the proportional reductions in the incidence of coronary and other major vascular events.²⁸¹

The proportional reductions in major vascular event rates per mmol/l LDL-C reduction were very similar in all subgroups examined (i.e. including the diabetic subgroup), including not just individuals presenting with LDL-C below 2.6 mmol/l (100 mg/dl). Level 1++

Table 14.1 Risk reductions in LDL-C

	Percentage proportional reduction per mmol/l LDL-C reduction
Overall death rate	12% reduction in all-cause mortality; RR 0.88 (0.84 to 0.91, p<0.0001)
CHD death	19% reduction in CHD death; 14/1,000 fewer deaths among those with pre-existing CHD and 4/1,000 among those without pre-existing CHD
Major coronary events	23% reduction in the incidence of first major coronary events; RR 0.77 (p<0.001) Diabetic subgroup, without pre-existing vascular disease; RR 0.74 (0.62 to 0.88, p<0.001)
Coronary revascularisation	24% reduction in the incidence of first coronary revascularisation (proportional reductions in coronary artery grafting and angioplasty were similar); RR 0.76 (0.73 to 0.80, p<0.0001)
Stroke	17% reduction in the incidence of first stroke; RR 0.83 (0.78 to 0.88, p<0.0001)
Major vascular events	21% reduction in the incidence of major vascular events; RR 0.79 (0.77 to 0.81, p<0.0001) Diabetic subgroup, without pre-existing vascular disease; RR 0.75 (0.66 to 0.86)

CHD, coronary heart disease