

## West Of Scotland Coronary Prevention Study

### Reference

Shepherd *et al.*, for the West of Scotland Coronary Prevention Study Group (1995) Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia. *New Engl J Med* **333**: 1301–7.

### Synopsis

**Objective:** To determine whether pravastatin treatment in men with moderate hypercholesterolaemia and without a history of MI reduced the combined incidence of nonfatal MI and death from CHD.

**Methods:** WOSCOPS was a randomized, placebo-controlled, double-blind study in which 6595 men between 45 and 64 years who had a fasting LDL cholesterol level of  $\geq 4.0$  and  $\leq 6.0$  mmol/L ( $\geq 155$  and  $\leq 232$  mg/dL) and no history of MI were assigned to receive either pravastatin (40 mg each evening) or placebo for 5 years. All patients received smoking and dietary advice throughout the study.

The primary end point of the study was the occurrence of nonfatal MI or death from CHD as a first event. Other secondary end points included the occurrence of nonfatal MI, death from CHD, CV causes or any cause, and the frequency of coronary revascularization procedures.

**Results:** Pravastatin, but not placebo, lowered plasma levels of total cholesterol, LDL cholesterol and triglycerides and raised the level of HDL cholesterol.

Pravastatin treatment was effective across a range of coronary end points (Figure 1.1) and ablated the coronary risk associated with adverse lipid levels (Figure 1.2).

### Critical appraisal

This landmark study showed for the first time that statin treatment of hypercholesterolaemic patients without symptomatic CHD not only lowers LDL cholesterol, but also reduces fatal and nonfatal CV event rates. An important limitation of this study was that only men who presented with severe hypercholesterolaemia (LDL cholesterol level of  $>4$  mmol/L [ $155$  mg/dL]) were included.

## WOSCOPS

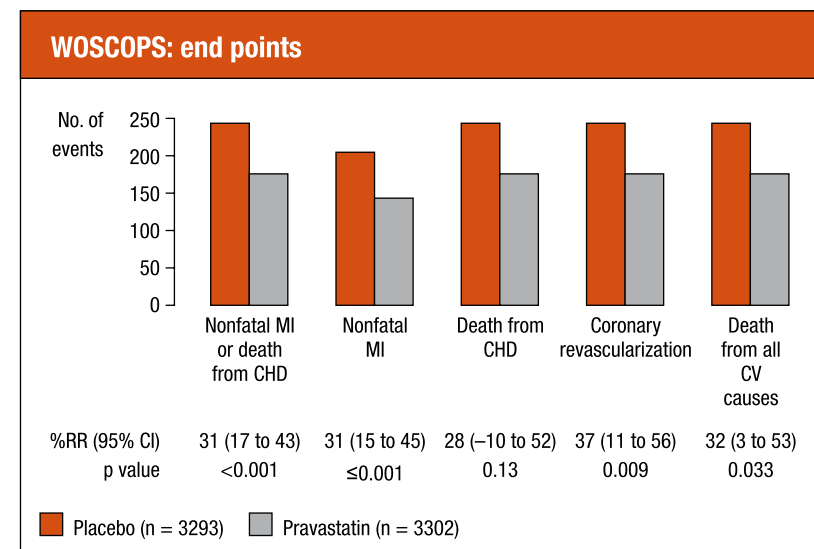


Figure 1.1

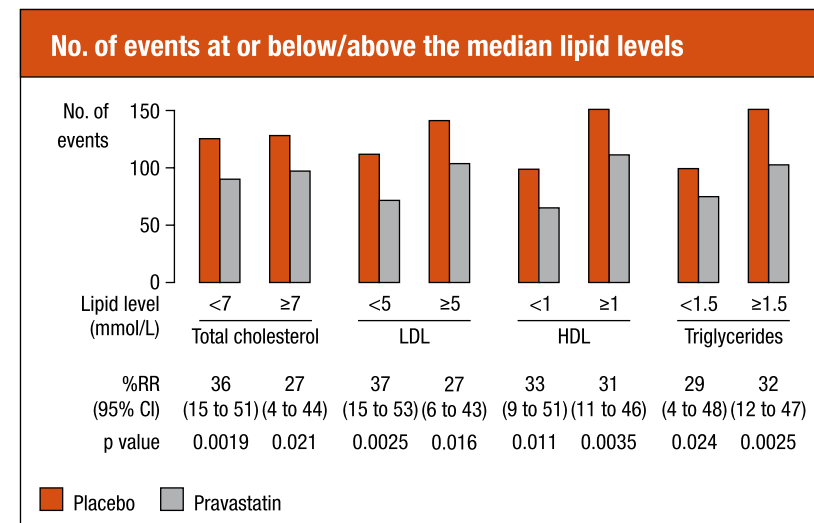


Figure 1.2