



## **Low HDL cholesterol is a predictor of stroke: results from the SPARCL study**

Data from the Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL) study show that low high-density lipoprotein (HDL) cholesterol is a predictor of risk of stroke in patients with recent stroke or transient ischaemic attack (TIA).<sup>1</sup> The SPARCL study evaluated the effect of atorvastatin 80 mg/day (median follow-up 4.9 years) on risk of stroke and major coronary events in 4,731 patients with recent stroke/TIA.

The researchers used Cox regression analysis with adjustment for geographical region, entry event, time since entry event, sex and baseline age to investigate relationships between low-density lipoprotein (LDL) cholesterol, HDL cholesterol and systolic blood pressure at baseline and month 1, and the risk of stroke and major coronary events.

Higher levels of HDL cholesterol at baseline and month 1 were associated with a 10% lower risk of stroke (95%CI 1-19%,  $p=0.03$ ) and a trend towards lower risk of major coronary events. Additionally, elevated systolic blood pressure at these time points was associated with trends towards an increased risk of stroke and major coronary events. Baseline LDL cholesterol levels were not related to risk of either endpoint, although lower levels at month 1 were directly correlated with greater reductions in the risk of stroke ( $p=0.005$ ) and major coronary events ( $p=0.002$ ).

These findings indicate the importance of raising HDL cholesterol, as well as reducing LDL cholesterol and systolic blood pressure, to reduce the risk of stroke and coronary heart disease.

### **Reference**

1. Amarenco P, Welch KM. Lipoprotein, blood pressure and stroke risk: findings from the Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL) Study. Presented at the American Heart Association Scientific Sessions 2006, Abstract 2985/C150.