**INTRODUCTION**

- Rosuvastatin-loaded protease inhibitor (rPI) therapy leads to increases in fasting total, low-density lipoprotein (LDL), very-low-density lipoprotein (VLDL) cholesterol fractions and triglycerides, with minimal impact on high-density lipoprotein (HDL) cholesterol [1].
- Rosuvastatin/indinavir or rilpivirine/tenofovir (rLPV) are each independently associated with a 12% to 16% increased relative risk of myocardial infarction per year of exposure [2, 3].
- Rosuvastatin/rilpivirine (AZVr) and rilpivirine/darunavir (rDRV) are the two currently preferred rPIs - as per 2015 United States Department of Health and Human Services (DHHS) antiretroviral guidelines; both produce elevations in total and LDL cholesterol and triglycerides when compared to the integrase inhibitor raltegravir [4].

**OBJECTIVE**

- Evaluate the efficacy and safety of rosuvastatin versus rPI switching for the treatment of fasting dyslipidemia in HIV-infected adults with increased cardiovascular risk.
- It was hypothesised that rosuvastatin would result in greater reductions in fasting total cholesterol than rPI switching.

**METHODS**

**Study Design**
- 12-week, randomised, open-label study conducted at 9 sites in Australia and Spain (ACTRN12612000732886; NCT013102774).
- Eligible participants were randomised in a 1:1 ratio, stratified by rPI at study entry (AZVr vs. other), and screening total fasting cholesterol ≥5.0 mmol/L. Study visits were at weeks 0, 4, and 12.

**Treatment groups**
- Rosuvastatin 10 mg/day: participants received 1:10 mg tablet of rosuvastatin and continued usual rPI-based antiretroviral therapy.

**RESULTS**

**Rationale**
- Both groups received standardised dietary and exercise advice.
- Contraindications to statins; lack of viable rPI switch options due to prior failure or resistance; contraindications to statins; inability to change antiretroviral therapy.
- No change in rPI regimen was required; no change in antiretroviral therapy.

**Data Analysis**
- Analysis of variation (ANOVA) and linear regression were used to assess between-group differences.
- Summary statistics were calculated as mean (± SD).
- Statistical significance was defined as a p value of 0.05.

**CONCLUSIONS**

- In HIV-infected adults with dyslipidaemia and elevated cardiovascular risk, rosuvastatin was superior overall to rPI switching in reducing fasting total and LDL cholesterol, with fewer adverse events.
- The lipid-modifying effects of rosuvastatin were most apparent for DHHS-preferred rPIs; in non-preferred rPIs the efficacy difference between rosuvastatin and rPI switching was not significant.
- rPI switching for the sole purpose of reducing lipids or cardiovascular risk may be unwaranted.

**REFERENCES**