**Outpatient Low Density Lipoprotein reduction – who does it better?**

**Authors:** Abela M, Bonello J, Zammit C, Farrugia M, Grech J, Bondin C, Grixti LM, Magri C, Xuereb RG

**Background**

Tight risk factor control is crucial to improve prognosis of patients who suffer from ischaemic heart disease (IHD). The European Society of Cardiology recommends that low density lipoprotein (LDL) should be kept below 1.8mmol/L in patients who suffer from IHD.

**Aim**

The aim of our study was to determine whether patients post-percutaneous coronary intervention (PCI) attending cardiology outpatients (MOP4), medical outpatients (MOP), cardiac rehabilitation (CR) or community based care (GP) were more likely to have better LDL control at 12 and 24 months compared to baseline.

**Methodology**

A random sample of 500 patients who had undergone PCI in 2013 were retrospectively studied, excluding foreigners. The list of patients was obtained from catheterisation suite, and iSoft was used to check the LDL levels at 12 months and 24 months from the date of PCI. The type of follow up (MOP4, MOP CR and GP) was recorded, with patients classified to one particular group depending on the maximum number of visits attended. Data was inputted on Microsoft Excel and statistical analysis was performed using SPSS version 24.0. Kolmogorov-Smirnov showed that data was not normally distributed. The Kruskal wallis, Mann-Whitney U test and Chi-squared tests were used depending on whether data was continuous or categorical.

**Results**

The initial cohort consisted of 500 patients. Only 59.0% (n=295) had a follow up LDL at 1 year. Of these, 80 patients (27.1%) attended MOP4, 41 (13.9%) attended CR, 77 (26.1%) attended MOP and 97 (32.9%) attending community GPs. MOP4 showed the best percentage improvement in LDL levels at 12 months, followed by CR, MOP and GPs (p<0.001). MOP4 patients had better LDL control at 1 year when compared to all 3 other groups individually (CR [p=0.001], MOP [p=<0.001], GP [p=<0.001). All patients in MOP4 successfully achieved the recommended LDL target, with none of the patients achieving target in those attending MOP and GP services, and 87.8% of those attending CR reaching target LDL. MOP4 patients were statistically more likely to achieve target LDL compared to other clinics (p<0.001).

At 24 months, only 202 patients had a follow up LDL (40.4%). These consisted of 61 (30.2%) followed up in MOP4, 26 (12.9%) at CR, 56 (27.7%) at MOP, and 59 (29.2%) in the community. Patients attending MOP4 had better LDL levels at 24 months, followed by CR, MOP and GP service (p<0.001). Patients followed up at MOP4 had a better percentage change in LDL at 24 months when individually compared to CR (p=0.007), MOP (p<0.001) and GP service (p<0.001). Patients in the MOP4 were also statistically more likely to achieve target LDL at 24 months (100%), with all CR patients also achieving target, 7.1% and 0.0% achieving target in MOP and GP service respectively (p<0.001).

**Conclusion**

Patients followed up at MOP4 were more likely to have a better percentage reduction in LDL at 12 and 24 months compared to patients at CR, MOP and community GP service. Follow up LDL were rather poor in all 4 groups. Better community based services should be implemented to help patients keep LDL levels in check.