

OP15

Do we achieve LDL-cholesterol targets in routine clinical practice? Evidence from a tertiary care hospital in Sri Lanka

Wijekoon PWMCSB¹, Wijekoon CN², Bulugahapitiya U³, Pathirana N¹, Wickramasinghe MC¹, Paranaivitane SA³, Wijayawardena S¹, Karunarathne M¹, Samarasinghe M¹, Sumanadasa S³

¹Department of Medicine, University of Sri Jayewardenepura, Sri Lanka; ²Department of Pharmacology, University of Sri Jayewardenepura, Sri Lanka; ³Colombo South Teaching Hospital, Sri Lanka

Background: Statins are widely used for primary and secondary prevention of cardiovascular disease (CVD). European Society of Cardiology / European Atherosclerosis Society (ESC/EAS) guidelines recommend LDL-cholesterol targets based on CVD risk.

Objectives: This study aimed to determine whether LDL-cholesterol targets recommended by 2016 ESC/EAS are achieved in routine clinical practice.

Methods: This paper is based on baseline data of patients recruited to a controlled clinical trial conducted at a tertiary care hospital. Participants have been on atorvastatin for >2 months. Demographic and clinical data were obtained using clinic records and interviewer administered questionnaires. LDL-cholesterol was assessed using Friedewald equation (when triglyceride was <400mg/dL) or by direct measurement (when triglyceride was ≥400mg/dL). Each participant's CVD risk level and appropriate LDL-cholesterol target (very-high CVD risk:<70mg/dL; high CVD risk:<100mg/dL; low to moderate CVD risk:<115mg/dL) was determined according to 2016 ESC/EAS Guideline.

Results: 101 patients were studied. (Women: 76.2%; mean-age: 61.2:±9.3years). Prevalence of coronary heart disease, ischaemic stroke, diabetes, hypertension and smoking was 30.7%, 4%, 77.2%, 80.2% and 4%, respectively. According to CVD risk level 80.2%, 15.8% and 4% were in very-high, high and moderate risk categories, respectively. Most were on atorvastatin 10mg (45.5%) followed by 20mg (43.6%), 40mg (8.9%), 30mg (1%) and 5mg (1%). Median duration of treatment was 41-months. Overall, only 12.9% had achieved target LDL-cholesterol (very-high risk: 7.4%; high risk: 37.5%, moderate risk: 25%; p=0.003). Men did better than women in achieving target LDL-cholesterol (men: 29.2%, women: 7.8%; p=0.006). There was no difference based on age, comorbidities or atorvastatin dose.

Conclusions: In the study population majority has failed to achieve LDL-cholesterol targets recommended by 2016 ESC/EAS. Failure to achieve targets was more common among women and those having very-high CVD risk. Reason for suboptimal target achievement has to be studied further.

Acknowledgement: Funded by University of Sri Jayewardenepura Research Grant (ASP/01/RE/MED/2015/54) and Ceylon College of Physicians Research Grant (2014).