

**Title:** Statin Therapy in Patients with Atherosclerotic Cardiovascular Disease: Is Our Population Under Dosed?

**Category:** Prevention

### **Abstract**

**Background:** The recent guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults, recommends initiation of high-intensity statin therapy in coronary heart disease (CHD) patients. Aim of this study was to determine the frequency and intensity of statin therapy being prescribed to the patients, after a CHD hospitalization.

**Methods:** For this cross-sectional study we enrolled patients above 20 years of age with definitive diagnosis of coronary artery disease presenting at a cardiac tertiary care center of Pakistan. Demographic characteristics and risk factors, information regarding cardiac history, statin therapy, type, and dosage level were obtained.

**Results:** A total of 238 patients were enrolled, out of which 73.9% (176) were male, mean age of the patients was  $56.29 \pm 11.94$  years. At baseline 41.6% (99) were diabetic, 74.4% (177) were hypertensive, 46.2% (110) were dyslipidemic, 14.7% (35) were current smokers, 18.5% (44) were former smokers, and 8.4% (20) had CKD. 80.3% (191) were diagnosed with CAD, 7.6% (18) patients had stroke, and 26.1% (62) patients were diagnosed with peripheral vascular disease.

Aspirin was prescribed to 91.2% (217) of the patients, Clopidogrel to 59.7% (142) patients, Beta Blockers to 78.2% (186) patients, ACE/ ARB to 67.6% (161) patients, and CCB were prescribed to 9.7% (23) patients. Statin was prescribed to 94.5% (225) patients, 29.8% (71) were prescribed with Atorvastatin (10 mg to 50.7%, 20 mg to 47.9%, 40 mg to 1.4%, and 80 mg to 0%) and 66.8% (159) were prescribed with Rosuvastatin (5 mg to 1.9%, 10 mg to 28.3%, 20 mg to 69.2%, and 40 mg to 0.6%). High intensity statin therapy was received by 47.1% (112) patients.

**Conclusion:** Despite class I recommendation in current guideline, majority of the patients in our study did not received high intensity statin therapy for secondary prevention after hospitalization for atherosclerotic cardiovascular disease.

**Clinical Implications:** With the recent advancements in the management of acute MI, reinforcement of guideline regarding secondary prevention, among the physicians and cardiologist, is needed for the better management of disease.