

Title: Statin Eligibility in Middle Eastern Patients Presenting With Acute Myocardial Infarction

Category: Acute Coronary Syndromes

Abstract

Background. Studies have shown that up to one-half of patients admitted with a first-time acute myocardial infarction (AMI) might not be eligible for statin therapy based on cardiovascular risk score models and low-density lipoprotein cholesterol (LDL-C) levels. Statin eligibility in Middle Eastern patients admitted with AMI is largely unknown.

Methods. Patients enrolled were those presenting with a first-time AMI and no prior cardiovascular disease or statin use who had their lipid profile measured upon admission to 5 tertiary care centers in Jordan (April 2018 to June 2019). The 2013 ACC/AHA Guidelines were used to identify statin eligibility. Ten-year atherosclerotic cardiovascular disease (ASCVD) risk was estimated based on ACC/AHA risk score.

Results. Of 1392 patients screened, 227 (16.3%) were excluded because of prior statin use and 391 (28.1%) were excluded because lipid profile was not measured. Analysis of 774 patients showed a mean age of 55.1 ± 11.3 years and 278 (36.9%) were ≤ 50 years of age. Females comprised 15.5% of the whole group, 37.7% had diabetes and 60.5% were smokers. Mean LDL-C was 127 ± 45 mg/dL. Coronary angiography was performed in 751 patients (97%) and percutaneous intervention in 719 (93%) during the index admission. Of the whole group, statin would have recommended for 611 patients (78.9%) prior to AMI presentation according to the 2013 ACC/AHA, and statin would have considered for 63 (8.1%) of patients. In only 100 patients (13%) of the group statin therapy would not have been recommended.

Conclusions. In this first Middle Eastern study of patients with first-time AMI, evaluation for statin eligibility based on the 2013 ACC/AHA Guidelines showed that about 9 of 10 individuals would have been eligible for statin therapy prior to presentation. Adopting these guidelines in clinical practice might positively impact primary cardiovascular preventive strategies in this region.