# Evaluation of secondary prevention in Egyptian patients after primary percutaneous coronary intervention

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**Background:** Effective secondary prevention after acute coronary syndromes is critical to reducing the risk of a subsequent cardiovascular event. Adherence to secondary prevention is disappointingly low worldwide, with no data in Upper Egypt.

**Purpose and methods:** We sought to determine the prevalence of adherence to secondary preventive among patients who underwent primary percutaneous coronary intervention (PPCI) in a tertiary centre in Upper Egypt from 2014-2016 (n = 468).

**Results:** Our cohort included 468 patients, mean age at STEMI was 55.7 ± 11.2 years; 79% males. Smoking, diabetes mellitus (DM), dyslipidemia, obesity and hypertension were 62%, 42%, 39%, 38% and 34% respectively. Median follow-up duration (IQR) was 703 (613-830) days. Table 1 shows the prevalence of adherence secondary prevention. Re-myocardial infarction, unstable angina, repeated hospital admission was 4.9%, 5.1%, 14% respectively. Revascularizations were 8.1% and total ischemic complications were 18%. The major adverse cardiac events MACEs were 24%. DM and hypertension were significant predictors of MACEs on univariable and multivariable analysis (multivariable ORs [95% CIs]: 1.685 [1.002 -2.833] and 1.764 [1.033-3.012], respectively).

**Conclusion:** Adherence to secondary prevention after PPCI is sub-optimal in Upper Egypt. We need to raise the standard of preventive cardiology care through more effective primary and secondary prevention programs, to reduce morbidity and mortality.

| Risk factor | Target level | Number (%) |
|---|---|---|
| Diabetes | HbA1c <7% | 280(62) |
| Blood pressure | <140/90 | 295(63) |
| Smoking cessation in smokers | Complete cessation | 122 (43) |
| Smoking status | No smoking | 301(65) |
| Physical activity | Walking at least 30 minutes 5 days/week | 301(60) |
| Body mass index | <25 kg/m$^2$ | 101(22) |
| Waist circumference | <102 cm in males, <88 cm in females | 164(36) |
| Diet | Low salt and fat, adequate fruits and vegetables | 268 (57) |
| Lipids | LDL < 70 gm/dL | 93(26) |