

**EFFECT OF DRUG COST-SHARING CHANGE ON NON-ADHERENCE TO ESSENTIAL MEDICATIONS FOR ACUTE CORONARY SYNDROME: A POPULATION BASED NATURAL EXPERIMENT**

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***Background***

In July 2012, the Spanish drug cost-sharing scheme was reformed, providing the opportunity to evaluate the consequences of this change on patient adherence. The aim of this study was to assess the impact of the cost-sharing change on medication adherence in patients with acute coronary syndrome (ACS) in the Spanish region of Valencia.

***Methods***

Population-based retrospective cohort of all patients 35 years old and over discharged after an ACS from public hospitals in the Valencia region during 2009-2011, followed until 2013. We used Difference in Difference to estimate the policy change effect on adherence to antiplatelet, beta-blockers, ACEI/ARB and statins of a control group – low income working population who did not change their status (40% coinsurance, unchanged) - and two intervention groups: pensioners (who moved from full coverage to 10% coinsurance) and middle to high income working population, for whom coinsurance grew from 40% to 50% or 60%

of drug cost.

### **Results**

No significant differences in non-adherence between intervention and control groups were found for medications with low price and low patient maximum coinsurance, such as antiplatelet and beta-blockers. For ACEI/ARB and statins, the change had an immediate effect in the proportion of non-adherence in the pensioner group as compared with the control group (6.8% and 8.3% increase respectively,  $p < 0.01$  for both). Non-adherence to statins significantly increased after the reform for the middle to high income group vs. control group (7.8% increase,  $p < 0.01$ ). However, those effects were transitory.

### **Conclusions**

Coinsurance changes may lead to increased non-adherence to proven, effective therapies, especially for higher priced agents with higher patient cost share. Adherence was already sub-optimal before the cost-sharing policy change, with a clear cost / income gradient. Consideration should be given to fully exempt high risk patients from drug cost-sharing.