

# Lack of Effectiveness of a Pharmacist Intervention Towards Improving Medication Adherence in Patients Attending Cardiac Rehabilitation: A Randomized Controlled Trial.

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## Background/rational:

CR programs aim to improve health outcomes in patients after Acute Coronary Syndrome (ACS). However, a significant proportion of patients do not attend CR and programs do not include individual long term support to help patients adhere to cardiovascular disease (CVD) medications including B-Blockers, ACE-Inhibitors/ARBs and statins. Although pharmacist interventions have proven to have positive impact on medication adherence in various settings, they have not been tested in Cardiac Rehabilitation (CR) programs.

## Methods and study design:

We conducted a randomized controlled open-label trial into the effects of a telephone-based pharmacist intervention on medication adherence in post-ACS patients eligible for CR in Saskatoon, Canada. The intervention was offered to these patients regardless of whether they attended or did not attend CR. Subjects in the intervention group were assessed by the pharmacist and then contacted by phone to manage any issue regarding medication non-adherence. Subjects were followed up for a minimum of six months.

## Objectives:

The primary objective was to compare medication adherence to all newly initiated CVD medications between the intervention group, which received additional education and counseling, in comparison to the usual care group. Medication adherence was assessed by electronic filling records.

## Results:

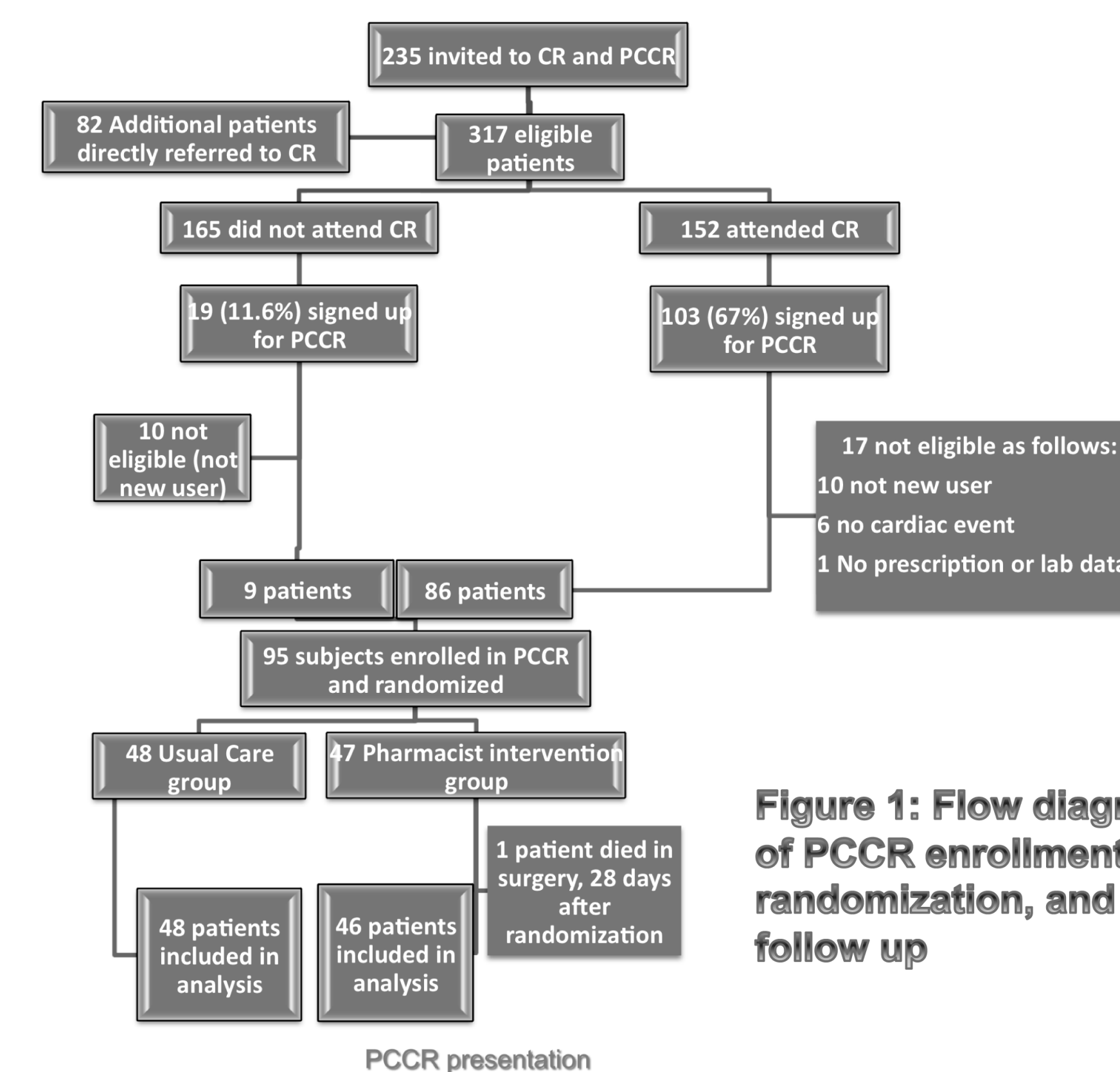
A total of 95 patients were randomized with 47 patients allocated to the intervention group and 48 patients allocated to the usual care group. Of these, 86 patients (90%) also attended the CR program. The mean follow-up period was 323 days in the intervention group and 318 days in the usual care group. During the follow-up period, 129 telephone interactions were performed (mean 2.7 calls per patient) with every subject receiving at least one interaction. Interactions were for initial and ongoing assessment, counseling to manage side effects as well as answering specific questions on medication interactions. Over the study period, the mean adherence to all recently initiated CVD medications combined was 88.8% in the intervention group and 89.9% in the usual care group ( $p=0.73$ ). We used student's t-test to compare adherence in the two groups.

## Conclusion:

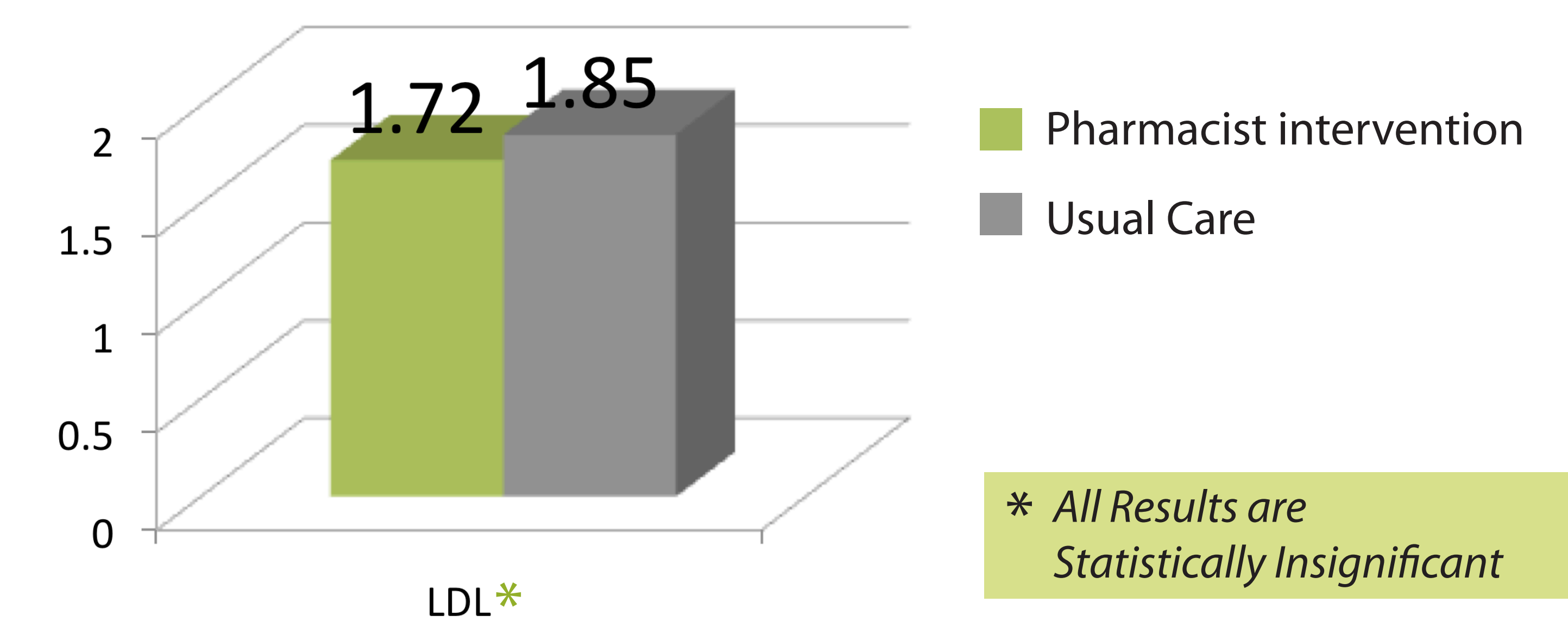
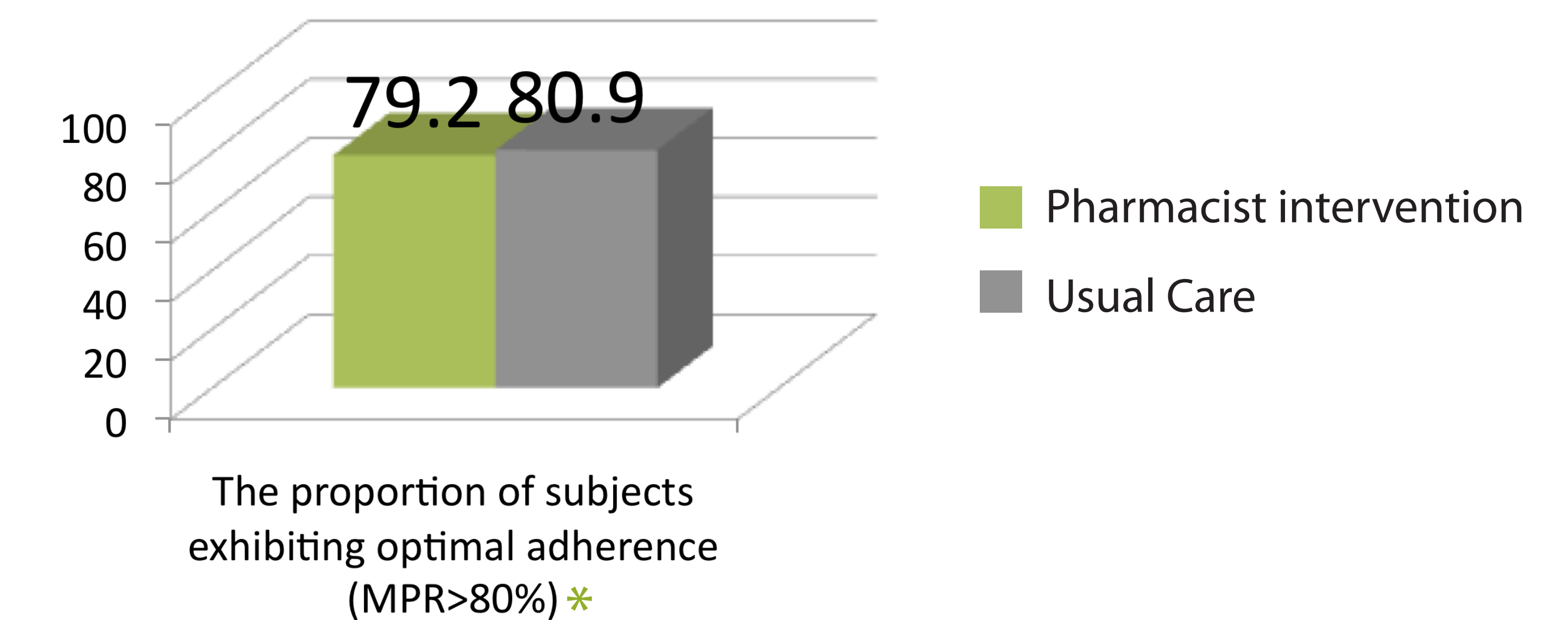
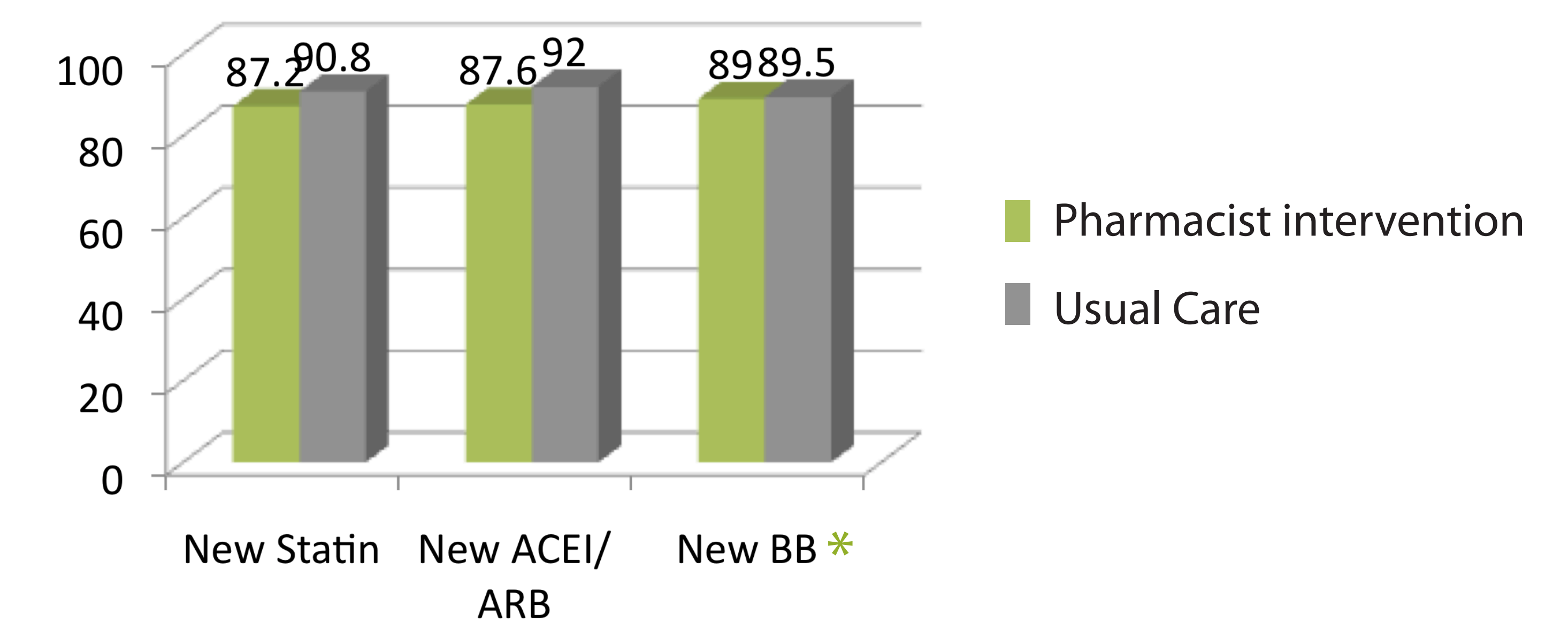
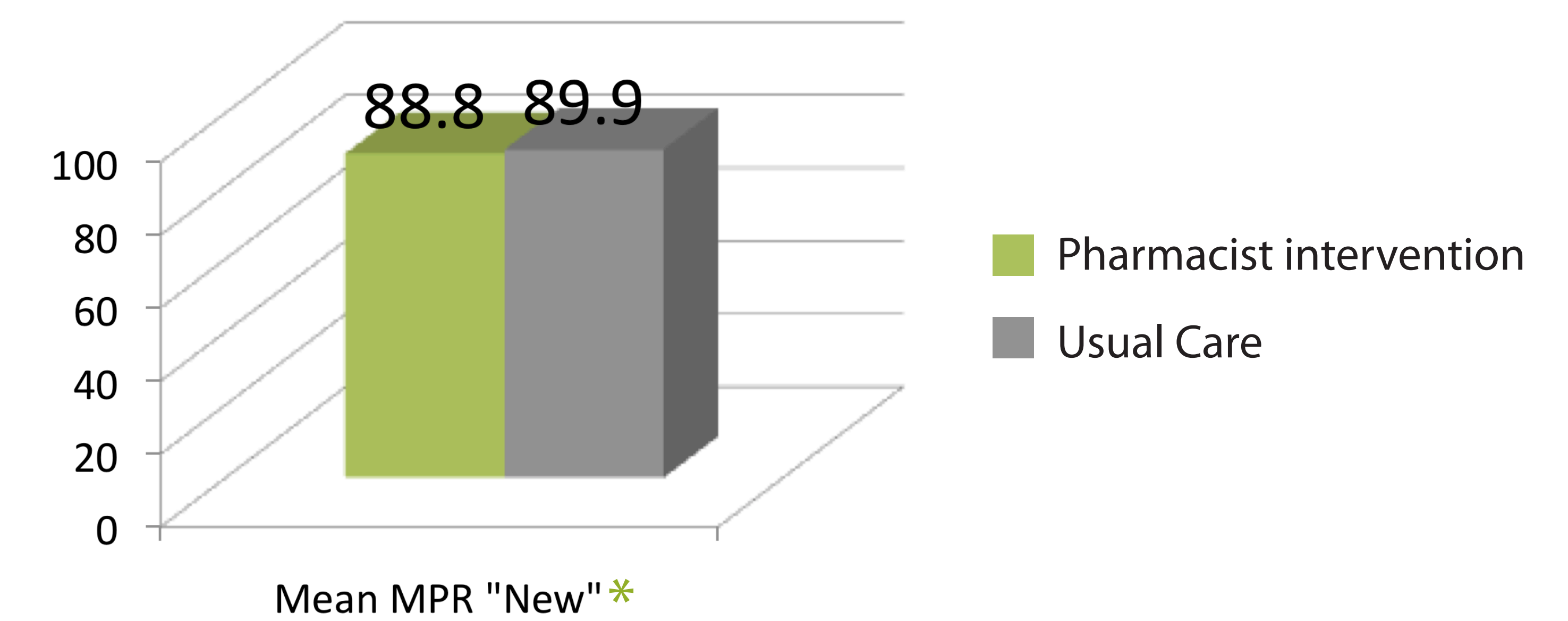
Pharmacist intervention had no benefit beyond usual care in improving CVD medication adherence among post-ACS hospital discharges, of which most were all CR patients. Patients who attended CR voluntarily already have optimal CVD medication adherence and future interventions should be targeted towards other post-ACS patients with higher potential for non-adherence.

## Authors keywords:

Cardiac rehabilitation; pharmacist intervention; medication adherence.



## PCCR RESULTS: Adherence to newly prescribed CVD medications



\* All Results are Statistically Insignificant