BACKGROUND Chronic patients often do not take their medication as prescribed. Community pharmacists can improve medication non-adherence through patient tailored complex interventions. AdherenciaMED is a research program, undertaken in different phases, led by General Pharmaceutical Council of Spain, Universities of Granada and Technology Sydney and has been funded by Cinfa Laboratories.

PURPOSE To evaluate the clinical and humanistic impact of a community pharmacist-led adherence service in patients with chronic conditions (Hypertension, Asthma or COPD) compared to usual care.

METHOD A cluster randomized controlled trial was conducted in community pharmacies in six Spanish provinces. Pharmacies were the unit of randomization, allocated to a control group (CG) or intervention group (IG). Patients in treatment for hypertension, asthma or COPD were selected at random in pharmacies. Patients in IG received a tailored service aiming at identifying and addressing non-adherence, using brief complex interventions based on evidence-based models for behavioral change (Necessity-Concerns, Health Belief, Information-Motivation-Behavioral Model, Transtheoretical Model and Motivational Interviewing) applying them in 5-10 minutes. Patients in the CG received the usual care. All patients received monthly follow-up for six months. Clinical impact was measured using blood pressure levels (for hypertension), Asthma Control Questionnaire (ACQ) scores (for asthma) and Clinical COPD Questionnaire (CCQ) scores (for COPD). Humanistic impact was measured through medication adherence (Morisky-4 items Test) and health-related quality of life perceived by the patient (EuroQol). The study was approved by the Ethics Committee of Granada.

FINDINGS 98 pharmacies, 138 pharmacists and 1,186 patients were enrolled (553 patients in the CG and 633 patients in the IG). The distribution across conditions was: 42.3% hypertension, 32.5% asthma and 25.2% COPD. At baseline, 46.7% control patients and 39.8% intervention patients (p= 0.0187) were adherent. At the end of the study, the proportion of adherent patients in the IG was significantly higher (89.2%) compared to the CG (66.2%)(p<0.0001). Regarding the clinical impact, IG patients had a lower average diastolic blood pressure (CG: 79.49 vs IG: 76.79, p=0.01). Patients in the IG had a clinically and statistically significant decrease in average ACQ scores (0.55 points) and CCQ scores (0.06 points). At the end of the study, the health-related quality of life measured by visual analogue scale (VAS) was significantly higher in IG (CG: 69.54 vs IG: 74.46, p<0.0001)

CONCLUSION This study has shown a community pharmacist-led intervention improves medication adherence, clinical outcomes and health-related quality of life in patients. Future studies should investigate the implementation of this service into routine practice.