maximal polytherapy (both 20%). Patients who benefitted from treatment intensification were those who presented more advanced structural remodeling, with progressive myocardial wall thickening; a significant increase in PW thickness was observed (p=0.017), reaching peak values in the triple therapy group (11.04 mm). Patients requiring polytherapy were those who exhibited the most adverse clinical profile, including higher mean systolic BP (134.7 mmHg, p=0.046), dyslipidemia (80%), and chronic kidney disease (35%). Furthermore, treatment escalation was guided by clinical criteria rather than age (p=0.80). Therapeutic optimization was implemented in 95.7% of uncontrolled cases, indicating low therapeutic inertia (p<0.001).

Conclusions: Triple therapy represents the most effective strategy for BP control in hypertensive patients, even in the presence of advanced cardiac remodeling. While clinical inertia was low in the studied cohort, true resistant HTN remains a major challenge, particularly in patients with a high metabolic and renal burden.

PREVALENCE AND PREDICTORS OF INTOLERANCE TO CALCIUM CHANNEL BLOCKER IN AN ITALIAN HYPERTENSIVE OUTPATIENT COHORT

Lara Ponsa, Matteo Regolo, Marco Genovese, Marco Lanza, Ilaria Vesely, Chiara Bertello, Silvia Monticone, Paolo Mulatero, Franco Rabbia, Franco Veglio, Marco Pappaccogli
Division of Internal Medicine and Hypertension Unit, City of Health and Science Molinette, University of Turin, Turin, ITALY

Objective: Calcium channel blockers (CCBs) are a key treatment for hypertension, but their use can lead to side effects, which may reduce adherence and necessitate alternative therapies. The aim of our study is to evaluate intolerance to CCBs and identify related independent clinical predictors in an Italian hypertensive outpatient cohort.

Design and method: We retrospectively analysed 14629 hypertensives evaluated at our tertiary care hypertension centre from January 2005 to April 2025.

Results: Among 14629 hypertensives, 8004 (54.71%) were treated with CCBs (56% with amlodipine). CCB intolerance was observed in 2299 patients (15.7%), mainly to amlodipine (34,02%). Intolerants were more often female (57.1% vs 48.4%, p<0.001), allergic (33.4% vs 25.9%, p<0.001), with secondary hypertension (10.9% vs 6.5%, p<0.001), low education (45.4% vs 39.2%, p<0.001), higher body mass index BMI (27 vs 26, p<0.001), and showed more visits, medications and diagnostic tests (p<0.001). Multivariate analysis identified female (OR 1.30 [1.15–1.46]), allergy (OR 1.50 [1.32–1.69]), secondary hypertension (OR 2.00 [1.66–2.42]), low education (OR 1.10 [1.04–1.18]), systolic blood pressure (OR 1.01 [1.01–1.01]) and BMI (OR 1.03 [1.01–1.04]) as independent predictors of CCB intolerance. Among 1527 intolerants to amlodipine, 16.2% were also intolerant to other CCBs, 36.9% switched to another CCB and 30.8% tolerated the switch. Compared to tolerants, those intolerant amlodipine were more often female (53.8% vs 38.3%, p<0.001), allergic (32.3% vs 22.6%, p<0.001) and had secondary hypertension (10.9% vs 8.4%, p=0.004), with a higher number of visits, medications and diagnostic tests. A multivariate analysis on amlodipine intolerance showed the same results of those of CCB intolerance. No significant differences in blood pressure control were found between amlodipine and other CCB treatments, despite patients assuming amlodipine reached blood pressure control with fewer drugs (p<0,001).

Conclusions: CCB intolerance is linked to female sex, allergies, secondary hypertension, and higher BMI. These factors can help to personalize therapy. Switching to other CCBs may reduce the side effects despite being equally effective in terms of blood pressure control.

MULTIDISCIPLINARY COMPREHENSIVE MEDICATION MANAGEMENT OPTIMIZES CARDIOMETABOLIC OUTCOMES IN CARDIO-RENAL-METABOLIC DISEASE

Helena Orehovacki[1], Mateja Kuljanac[2], Ingrid Prkacin[3], Lucija Ana Bicanic[1], Andrea Brajkovic[2], Ivana Gudelj[1], Lorena Bosnar Zelenika[4], Iva Mucalo[2]. [1]*Health Centre Zagreb - Centar, Pharmacotherapy Consultation Centre, Zagreb, CROATIA*, [2]*The University of Zagreb, Faculty of Pharmacy and Biochemistry, The Centre for Applied Pharmacy, Zagreb, CROATIA*, [3]*Medikol Polyclinic Internal Medicine Outpatient Clinic, Zagreb, CROATIA*, [4]*Health Centre Zagreb - Centar, Family Medicine Clinic, Zagreb, CROATIA*

Objective: Rapidly changing guidelines and escalating therapeutic complexity have underscored the need for systematic medication optimization in cardiometabolic care. Comprehensive medication management (CMM) entails an individualized evaluation of all medications, assessing appropriateness, efficacy, safety, and adherence and may be particularly beneficial in patients with type 2 diabetes (T2D) and chronic kidney disease (CKD). This study evaluates CMM's impact on key clinical outcomes (systolic blood pressure (SBP), LDL, HbA1c) and its alignment with guideline-directed therapy for T2D, CKD, hypertension (AH), and hyperlipidemia (HLP).

Design and method: A prospective, non-randomized pre–post interventional study was conducted at the Health Center Zagreb - Centar (May 2023 – September 2025). Eligible adults with T2D, documented eGFR <60 mL/min/1.73m^2, and minimum 6-month follow-up were enrolled. The intervention group (IG) received standard care plus pharmacist-led-CMM, while the control group (CG) continued with standard general practitioner management only. Data collected included sociodemographics, clinical parameters, and medication profiles, with serial assessments of T2D, HLP, and AH control.

Results: The IG (n=47) demonstrated superior SBP/lipid/glucose control: HbA1c (-1.05 ± 1.13 mmol/L; p<0.001), SBP (-13 [0, -19] mmHg; p<0.001), LDL (-0.36 [0, -0.9] mmol/L; p=0.002). In the CG (n=46), HbA1c (0.09 ± 1.37; p=0.668) and LDL (0.08 ± 0.78; p=0.395) remained unchanged, while SBP decreased significantly (-6 [-2,-25]; p=0.004). Target achievement improved significantly in IG (AH 25% to 42%, HLP 19.6% to 47.7%, and T2D 30.4% to 72.7%), whereas CG showed significant T2D improvement only (39.1% to 54.3%). Guideline-directed therapy implementation improved significantly in the IG: GLP-1RA use increased from 17.0% to 21.3% (p<0.001), SGLT2i from 36.2% to 63.8% (p<0.001), and metformin from 38.3% to 55.3% (p=0.011). MRA use increased from 40.4% to 48.9%, but not statistically significant (p=0.542). CG showed modest increases in GLP-1RA (19.6% to 23.9%; p=0.083) and SGLT2i use (23.9% to 30.4%; p=0.083), but a significant increase in MRA use (8.7% to 15.2%; p<0.001). Metformin use slightly declined (66.7% to 64.4%; p=0.655).

Conclusions: Pharmacist integration within multidisciplinary cardio-renal-metabolic care pioneers new pharmacological horizons and positions CMM as a foundational strategy for implementing guideline-directed therapy in complex cardiometabolic disease phenotypes.

BEMPEDOIC ACID: A NEW MODULATOR OF BLOOD PRESSURE AND THE GLOBAL CARDIOVASCULAR RISK OF THE HYPERTENSIVE AND HYPER-CHOLESTEROLEMIC OUT-PATIENT?

Alberto Mazza Mazza[1], Laura Schiavon Schiavon[2], Anna Dalla Pozza Dalla Pozza[1], Piergiorgi Rossi Rossi[1], Marco Zuin Zuin[3]. [1]*Internal Medicine Unit - San Bortolo General Hospital, Vicenza, ITALY*, [2]*Internal Medicine Unit - Santa Maria degli Angeli General Hospital, Adria (RO), ITALY*, [3]*Department of Cardio-Thoraco-Vascular Sciences and Public Health, Padova, ITALY*

Objective: In the 2025 update of the ESC/EAS guidelines for the management of dyslipidemias bempedoic acid (BA) has gained a stronger recommendation, as it has shown able in both LDL-C lowering and in reducing cardiovascular (CV) events. BA has been shown to reduce systemic inflammation and having some ancillary metabolic effects, but it's possible effects on blood pressure (BP) levels have never been investigated. The efficacy on BP and LDL-C levels of treatment with BA alone or in fixed-combination with ezetimibe in hypertensive and hypercholesterolemic subjects in primary prevention (PP) or secondary prevention (SP) for CV diseases was evaluated.

Design and method: In 362 subjects (mean age 64.0±7.8 years, 53.9% men, 43.6% in PP), with uncontrolled LDL-C values (mean 132.3±32.6 mg/dl) despite lipid-lowering therapy, an oral treatment with BA or BA/E, 180 mg or 180/10 mg once daily respectively, was added. The changes on office and home-BP (HBPM) systolic BP (SBP)/diastolic BP (DBP) and LDL-C values were evaluated at 3, 6 and 12 month of follow-up (FW) as in PP and in SP. Categorical variables were compared with the X2 test, while differences between continuous variables were evaluated by the analysis of co-variance (ANCOVA).

Results: Office SBP/DBP values significantly (p<0.001) reduced during the FW both in PP (-2.88/1.85, -3.2/2.051, -3.32/2.15 mmHg) and in SP (-1.77/1.10, -2.20/1.3, -1.93/1.25 mmHg). In the manner SBP/DBP HBPM values significantly (p<0.001) reduced both in PP (-3.2/1.6, -3.9/1.9 and -4.6/2.2 mmHg) and in SP (-1.9/0.9, -2.4/1.1 and -2.8/1.3 mmHg). In the whole population, a significant LDL-C reduction was found during the FW (115±11.8, 105±11.0 and 95±10.0 mg/dl respectively, P-value for trend baseline vs. FW, p<0.001).

Conclusions: In the real world, our findings support the BP lowering effect of BA as a promising treatment option for hypertensive and hyper-cholesterolemic subjects. However, larger studies with a longer FW are mandatory to provide more definitive evidences.

HIGH RATE OF UNCONTROLLED BLOOD PRESSURE DESPITE MULTIDRUG THERAPY IN ELECTIVE PERCUTANEOUS CORONARY INTERVENTION PATIENTS

Karel Labr[1], Lukas Filka[2]. [1]*First Department of Internal Medicine Cardioangiology, St. Annes University Hospital, Faculty of Medicine, Masaryk*