be effective in treating a highly prevalent, costly, and asymptomatic condition such as hypertension.

**PCV122**

**IS PRESCRIBING JUSTIFIED BY THE EVIDENCE—COMBINATION OF ANGIOGENIC-CONVERTING ENZYME INHIBITORS AND ANGIOTENSIN RECEPTOR BLOCKERS FOR TREATING HYPERTENSIVE OUTPATIENTS IN SOUTHERN TAIWAN**

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OBJECTIVES: Angiogenic-converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) have substantially contributed to the escalating cost of hypertension drug expense in Taiwan. Increasing literature has proposed potential benefits of combining ACEIs/ARBs in controlling blood pressure, but there is still a lack of evidence to support the rationale of ACEIs/ARBs combination in treating hypertension. This study aims to explore the current utilization and prescribing patterns of ACEIs/ARBs combination in Taiwan.

METHODS: A cross-sectional study was conducted from 2006 to 2008, using a regional reimbursement claim database from the Kaohsiung Division of National Health Insurance. Individual data of hypertension outpatients treated with ACEIs or ARBs for more than 28 days per year in Southern Taiwan were extracted. Descriptive and prescriptive data were collected, and then descriptive analyses were used to evaluate patients’ characteristics and prescribing patterns of ACEIs, ARBs and their combination. Wald chi-square tests and Student’s t-test were conducted to examine the prescribing associated variables and differences between heart care centers.

RESULTS: During the 3-year prescriptions were assessed, including 44.69% (n = 2,003,278) ACEIs and 55.31% (n = 2,479,548) ARBs prescriptions. Of all, 1.22% (n = 54,526) prescriptions have either doubled or combined more than one ACEI. Likewise, 2.29% (n = 102,486) have doubled or combined more than one ARB. Furthermore, 0.61% (n = 27,381) prescriptions combined both ACEIs and ARBs. The majority of these combinations were prescribed in medical centers in continuous prescriptions for long-term refills, and the amount of combined prescriptions increased annually. The major co-morbidity of ACEIs/ARBs combinations is diabetes mellitus (n = 987, 36.05%), and chronic renal disease (n = 935, 18.46%) and congestive heart failure (n = 836, 3.24%).

CONCLUSIONS: We found a small proportion of ACEIs/ARBs combination, yet the combined prescriptions are increasing and used chronically in patients with specific co-morbidities. Further studies are needed to explore the effectiveness and rationality of this combination.

**PCV123**

**DRUG UTILIZATION REVIEW OF DUAL ANTIPLATELET THERAPY AMONG TAIWANESE OLDER ADULTS**

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OBJECTIVES: Upon the coverage limitations proposed by Taiwan National Health Insurance (NHI), the dual therapy with clopidogrel and aspirin would be reimbursed up to 9 months for specific indications since 2004. Although evidence showed its risks outweighed the benefits comparing to use aspirin alone, it is a lack of study examining population use of dual therapy. A secondary data analysis was performed to examine the use patterns of dual antiplatelet therapy (DAT), specifically among older adults in Taiwan.

METHODS: A population-based longitudinal assessment was conducted using the 2003-2007 NHI databases. Those beneficiaries in 60 years of age and greater during the study period were evaluated. All relevant data, including visits toward physician clinics, outpatient departaments, use of medications, and pertinent coverage cost in the datasets of ambulatory care were retrieved and analyzed. Descriptive analysis was performed to describe and compare the utilization of DAT for less or more than 3 months (shorter vs. longer treatment).

RESULTS: Of all million beneficiaries were 1099 patients were prescribed DAT. Of which, 71% were older adults (age = 71 ± 7.8 years old). There was a sharply increasing utilization of DAT in 2007 for a total of 785 older patients. 85% were prescribed with approval indications (i.e., ischemic heart diseases) for aspirin or clopidogrel alone; 29.8% possessed with at least one atherothrombotic risk factors (DM, dyslipidemia), which might attribute to DAT. The duration of DAT was up to 13 months. The total drug expenses were 66% and 85% among shorter and longer treatment patients, respectively. The cost of DAT accounted for up to 51% of total drug expense.

CONCLUSIONS: There were sharply increasing utilization of DAT among Taiwanese older adults since 2007. Further studies are needed to explore the contributing factors of DAT and its effectiveness and safety outcomes.

**PCV124**

**ANTIHYPERTENSIVE PHARMACOTHERAPY-PHYSICIAN PERSPECTIVES AND PRESCRIBING PATTERNS IN THREE SOUTH INDIAN HOSPITALS**

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OBJECTIVES: The prevalence of hypertension is increasing in epidemic proportions in the Indian subcontinent. Despite the well known benefits of aggressive blood pressure control in hypertensive patients, data from the subcontinent indicate that the control of hypertension remains remarkably poor. Our previous study demonstrated that calcium channel blockers (CCBs) were the most prescribed agents for uncontrolled hypertension in three South Indian Hospitals. The objective of this study was to assess the physician’s perspectives with regard to antihypertensive pharmacotherapy and to determine whether they are in accordance to national and/or international hypertension guidelines. METHODS: A questionnaire was developed containing questions on familiarity with guidelines, diagnosis of clinical hypertension, and evaluation of patients without hypertension with or without co-morbidities for hypertension, choice of antihypertensive therapy including choice of drugs, and drug regimens or specific drug combinations. The questionnaire was administered to internists and physicians of Medicine Department of three teaching-hospitals in South India. RESULTS: Among a total of 37 physicians who received the survey, 58.1% (n = 21) were from tertiary care, whereas 12.8% were familiar with the Indian Hypertension Guidelines. Although majority of the physicians were aware of the guidelines about 37% of them indicated that they would prefer CCBs as the first drug for treating uncomplicated hypertension. A secondary data analysis was performed and the physicians chose a two-drug combination over monotherapy, CCB with ACE-inhibitors was the most favored choice followed by combinations of CCBs with beta-blockers and diuretics. CONCLUSIONS: The physician’s preference of CCBs and combination therapy over other antihypertensives and monotherapy in South India is different from the treatment pattern observed in Europe.

**PCV125**

**UTILIZATION PATTERNS FOR ANTIARRHYTHMIC DRUGS IN BIG 5 EU MARKETS: TEMPORAL ANALYSIS FROM 2005 TO 2009**

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OBJECTIVES: This study evaluates changes in utilization patterns of class I (flecainide and propafenone) and class III (amiodarone) antiarrhythmics for treating ventricular arrhythmias in five European markets—the Big 5 (France, Germany, Italy, Spain, and the UK). METHODS: Utilization trends were examined using IMS Market Trend Analysis, a database of global sales from all corporations with pharmaceutical products sold into a pharmacy or hospital as well as prescription information from ofﬁce-based physicians. Utilization of antiarrhythmic drugs was assessed using patient days of therapy (PDOT). Descriptive analyses were conducted for speciﬁc drug classes as well as individual agents, including flecainide, propafenone, and amiodarone. RESULTS: Overall, PDOT was highest for amiodarone, the main representative class III agent, with an average of 229 million PDOT over the five year period across all markets. During this time, PDOT for amiodarone increased by 9.5% in France (50.9 to 55.7 million), 13.8% in Germany (12.3 to 14.3 million), 25.4% in Italy (30.7 to 38.2 million), and 22.2% in the UK (31.5 to 38.3 million). This resulted in greater class III drug use in all markets except Italy, where class I agents were preferred over class III agents consistently from 2005 to 2009. Among all antiarrhythmics, flecainide showed a consistent overall increase in PDOT over the study period, with a 22.4% increase from 110 to 135 million PDOT and a resulting increase in market share from 24.9% to 29.4% from 2005 to 2009. CONCLUSIONS: Amiodarone was the dominant antiarrrhythmic therapy in the Big 5 European markets suggest a possible change in rhythm control strategy for the treatment and/or management of arrhythmias.

**PCV126**

**THE CARDIOVASCULAR CONSEQUENCES OF SWITCHING FROM ATORVASTATIN TO GENERIC SIMVASTATIN IN THE NETHERLANDS**

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OBJECTIVES: In January 2009, an authorization form was implemented which required Dutch clinicians to justify the prescription of branded statins, leading to significant switching of patients from atorvastatin to generic simvastatin. However, current prescription data indicates that much of this switching is occurring at less than equipotent doses. We sought to assess the potential consequences in terms of cardiovascular disease. METHODS: Data from a pharmacy database covering the majority of drug dispenses in the The Netherlands informed dose-specific patterns of switching from atorvastatin to generic simvastatin. Dose-specific, LDL-CHLD, in the UK, and in France (85.8 to 86.3 million) and decreased by 20.6% in the UK (32.8 to 26.0 million) and 2.5% in Spain (27.2 to 26.5 million). This resulted in greater class III drug use in all markets except Italy, where class I agents were preferred over class III agents consistently from 2005 to 2009. Among all antiarrhythmics, flecainide showed a consistent overall increase in PDOT over the study period, with a 22.4% increase from 110 to 135 million PDOT and a resulting increase in market share from 24.9% to 29.4% from 2005 to 2009. CONCLUSIONS: Amiodarone was the dominant antiarrrhythmic therapy in the Big 5 European markets suggest a possible change in rhythm control strategy for the treatment and/or management of arrhythmias.

**CONCLUSIONS:**