stances. All 3 economic studies found MIS in the treatment of ICH was associated with lower costs compared to MM or CR. In one study MIS resulted in a $USD44,329 saving in acute care costs compared to MM, primarily driven by lower hospital bed days (70 vs. 98.9 days). **CONCLUSIONS AND IMPLICATIONS OF KEY FINDINGS:** MIS in the treatment of ICH presents convincing evidence for improved efficacy over MM and CR. The latest clinical practice guidelines for the treatment of ICH do not yet accurately reflect these latest findings and as such, current treatment practices may be lagging behind what the highest level of evidence suggests should be standard of care.

PCV12

PHARMACOECONOMIC GROUNDING OF USING POLYPILL AMLODIPINE WITH ATORVASTATIN VERSUS MONODRUGS IN PATIENTS WITH HYPERTENSION AND DYSLIPIDEMIA IN UKRAINE

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OBJECTIVES: One reason of the low efficiency of cardiovascular diseases (CVD) treatment in Ukraine is the low adherence of patients. Modern trends improving the quality of treatment and increase patients compliance is use of polypills (PP). The aim: pharmacoeconomic assesment the feasibility of PP amlodipine and atorvastatin versus monodrugs in patients with hypertension and dyslipidemia (DYS) from the Ukrainian perspectives point of view. **METHODS:** The results of clinical studies AVALON (Granger C. B., McMurray J. J., Yusuf S. et al., 2003) were used. Cost minimization analysis of three regimens of patients treatment with hypertension and DYS during 8 weeks: PP amlodipine 5 mg + atorvastatin 10 mg; amlodipine 5 mg; atorvastatin 10 mg. **RESULTS:** The results of the clinical research AVALON found, that the use of PP amlodipine+atorvastatin provides significant clinical benefit: the largest number of patients reached target levels of blood pressure (BP) and low-density lipoprotein cholesterol (LDL-C) (45.5%), versus amlodipine (8.3%), atorvastatin (28.6%), placebo (3.5%). The scheme using amlodipine is the most expensive (cost for course of treatment (CCT) € 20.28), the regimen of atorvastatin 10 mg (CCT € 10.46) and the PP amlodipine+atorvastatin (CCT € 17.72) are less costly. This PP is more cost effective versus amlodipine monotherapy (CER = € 38.95 versus € 244.34 per patient with target levels of BP and LDL-C) and less cost effective compared atorvastatin monotherapy (CER = € 36.57 per patient with target levels of BP and LDL-C). The cost of an additional unit of effectiveness (ICER) showed that the use of PP amlodipine+atorvastatin instead amlodipine provides for the treatment of each 100 patients additional 37.2 patients achieved target levels of BP and LDL-C and saving € 6.88 per patient. **CONCLUSIONS:** Pharmacotherapy of patients with hypertension and DYS based on PP amlodipine+atorvastatin provides significant clinical benefit versus monodrugs and pharmacoeconomic advantages versus amlodipine.

PCV14

LIFETIME CLINICAL EVENTS AVOIDED AND RESOURCE UTILIZATION WITH APIXABAN COMPARED TO LOW-MOLECULAR-WEIGHT HEPARIN FOLLOWED BY A VITAMIN K ANTAGONIST FOR THE TREATMENT AND PREVENTION OF VENOUS THROMBOEMBOLISM

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OBJECTIVES: The AMPLIFY trial compared apixaban to low-molecular-weight heparin (LMWH) followed by a vitamin K antagonist (VKA) for treatment and prevention of recurrent venous thromboembolism (VTE). The AMPLIFY-EXT trial compared extended treatment with apixaban to placebo in previously treated patients. This analysis evaluated the potential lifetime implications of apixaban treatment versus LMWH/VKA. **METHODS:** A Markov model was developed to evaluate the lifetime impact of treatment and prevention of VTE with apixaban (5 mg BID for 6 months, then 2.5 mg BID) versus LMWH/VKA. Clinical event rates were taken from AMPLIFY, AMPLIFY-EXT, and indirect treatment comparison. Length of stay for hospitalizations was taken from AMPLIFY for recurrent VTE (median 5 days for apixaban, 6 days for LMWH/VKA) and major bleeds (median 5 days for apixaban, 7 days for LMWH/VKA). Sixty percent of patients with recurrent VTE and all patients with major bleeding were assumed to be hospitalized. Outcomes evaluated were events and hospital bed days avoided, number needed to treat to avoid a recurrent VTE, number needed to treat to harm with an additional bleed, and life years gained. **RESULTS:** In a cohort of 1,000 patients, lifetime treatment with apixaban versus LMWH/VKA resulted in 6 fewer recurrent VTE events, 191 fewer major bleeds, 707 fewer clinically relevant non-major bleeds, and 1,730 hospital bed days avoided. On average, a patient treated with apixaban gained about 3 months of life expectancy due to avoidance of VTE events and major bleeds. These results translated to one recurrent VTE event avoided for each 157 patients treated and one major bleed avoided for each 5 patients treated with apixaban versus warfarin. **CONCLUSIONS:** Apixaban for treatment and prevention of VTE appears to be a superior alternative to LMWH/VKA, leading to fewer recurrent VTEs, bleeding events, and hospital bed days resulting in a projected increase in life-expectancy.

PCV15

THE EFFECTIVENESS OF CAROTID ARTERY STENTING COMPARED WITH ENDARTERECTOMY IN SYMPTOMATIC PATIENTS WITH CAROTID STENOSIS IN KOREAN MULTI-CENTER SETTING

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OBJECTIVES: Carotid endarterectomy (CEA) has been recommended as the gold standard for the management of carotid disease in many clinical guidelines. But, in Korean clinical practice, carotid artery stening (CAS) was conducted more than CEA (21.6%) based on the national claims-data. The purpose of this study was to compare the effectiveness with CAS and CEA in 677 patients with symptomatic carotid artery stenosis in korean clinical practice. **METHODS:** From January 1 2008 to December 31 2011, retrospective cohort study was conducted in 677 symptomatic carotid stenosis patients with more than 50% stenosis) (CAS=346, CEA=331) in the Korean hospitals (Asan medical center, Samsung medical center, Severance hospital, Inha university hospital, Chonnam university hospital). The primary outcome was stroke, myocardial infarction, or death during periprocedural (30-day) and postprocedural period. **RESULTS:** For 677 patients over 2-year follow-up period, All death, major stroke, minor stroke were higher in CAS group than CEA (1.45% vs. 0.30%, 4.05% vs. 1.81%, 3.47% vs. 3.02%, 0.58% vs. 0%). All outcomes were higher in CAS than in CEA within 30-day after treatment and in subsequent years, except the incidence of 30 days-minor stroke. **CONCLUSIONS:** CEA was superior to CAS in symptomatic patients with carotid stenosis. This study suggests that CEA can be considered the first-line therapy for symptomatic carotid artery stenosis in South Korea.

PCV16

REAL-TIME ASSESSMENT OF MEDICATION TAKING AND ACTIVITIES OF DAILY LIVING IN PATIENTS WITH UNCONTROLLED HYPERTENSION

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OBJECTIVES: For patients with uncontrolled hypertension, differentiation of pharmacological resistance from inadequate or improper medication use is key to clinical management. Proteus Digital Health has developed a unique digital feedback system, which utilizes an Ingestible Sensor (IS) to determine medication-taking patterns. A wearable sensor in the form of an adhesive patch collects timing and taking of IS ingestions, and physiological and behavioral metrics such as heart rate, and patterns of activity and rest, providing insights into the patient's day-to-day lifestyle. This study evaluates the utility of the Proteus system in patients with uncontrolled hypertension. **METHODS:** Patients with a history of uncontrolled hypertension (BP>140/90) at 5 primary care centers in the United Kingdom were prescribed the Proteus system for 14 days. Patients co-ingested the IS along with their prescribed BP medications while simultaneously wearing the patch. BP was measured on days 1 and 14 by a clinician, and all other parameters, such as adherence, activity and rest patterns, were collected via the Proteus system. **RESULTS:** Of the 190 patients, 21 patients had incomplete data. In the remaining 169 patients (89%), mean medication adherence was 88%, and mean BP decrease was -7.6 mm Hg systolic and -3.8 mm Hg diastolic. The system data provided diagnostic insight differentiating non-response vs. non-adherence. One hundred forty-eight (78%) patients had ≥70% adherence; 100 (53%) achieved blood pressure control on their prescribed therapy, and 48 (25%) remained uncontrolled and required modification of their therapeutic regimen. The remaining 21 patients (11%) were identified as needing intervention to support medication adherence. **CONCLUSIONS:** In patients with a history of uncontrolled hypertension, 53% achieved BP control within 2 weeks, and 25% received an informed therapeutic intervention using the Proteus system. Thus, Proteus can identify specific individual needs for progressing through the recommended treatment pathway and for advancing toward treatment goals.

PCV17

USE OF COMPUTER SIMULATION TO GENERATE EVIDENCE TO AID HEALTH CARE DECISION MAKING: AN EXAMPLE USING THE ARCHIMEDES MODEL TO COMPARE ROSUVASTATIN WITH ATORVASTATIN

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OBJECTIVES: Randomized controlled trials (RCTs) provide the most robust evidence source for making patient health care decisions. When RCT data are lacking, however, complementary evidence sources may also be needed. As an example of this, three clinical trials comparing rosuvastatin with atorvastatin were simulated using the Archimedes model, a validated, individual-based simulation of human pathophysiology and behaviours, treatment interventions and health care systems. **METHODS:** Comparison A assessed clinical outcomes in patients receiving available doses of the two drugs. Comparison B assessed the impact of initial treatment decisions, with individuals randomized to receive various doses of either rosuvastatin or atorvastatin and eligible for treatment intensification for up to 5 years if target lipid levels were not met. Comparison C assessed the effect of switching patients' treatment from rosuvastatin to atorvastatin. **RESULTS:** In comparison A, rosuvastatin was estimated to result in greater reductions than atorvastatin in major adverse cardiac events (MACEs) at 5 and 20 years at all doses examined (relative risk [RR]: 0.907,0. 892 and 0.931 at 20 years for rosuvastatin 20 mg versus atorvastatin 40 mg, rosuvastatin 40 mg versus atorvastatin 80 mg, and rosuvastatin 20 mg versus atorvastatin 80 mg, respectively; P<0.05 in all cases). In comparison B, outcomes were significantly better in patients initially prescribed rosuvastatin relative to atorvastatin (RR of MACE at 10 years: 0.919; P<0.001). In comparison C, risk of MACE was significantly greater in patients who switched from rosuvastatin to atorvastatin, relative to those who remained on rosuvastatin (RR at 10 years: 1.115; P<0.001). **CONCLUSIONS:** In this example using the well-validated Archimedes model, better outcomes were predicted in patients receiving rosuvastatin than in those receiving atorvastatin in a variety of different settings. This provides an example of the utility of robust modelling approaches to generating evidence that is not available from clinical trials.

PCV18

CRITICAL APPRAISAL OF NETWORK META-ANALYSES EVALUATING THE EFFICACY AND SAFETY OF NEW ORAL ANTICOAGULANTS IN ATRIAL FIBRILLATION STROKE PREVENTION TRIALS

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