

appears to be an independent risk factor for the failure to attain BP and dual BP and LDL-C goals in patients with concomitant hypertension and dyslipidemia. These findings suggest that future research is needed to determine the underlying link between obesity and failure to attain these goals.

PCV121

UTILIZATION OF POLYPILL FOR MANAGEMENT OF MYOCARDIAL INFARCTION

Gupta P, Aparasu RR

University of Houston, Houston, TX, USA

BACKGROUND: Past literature recommends varied combinations of 2 or more anti-hypertensive drugs as polypill therapy for Myocardial Infarction (MI). **OBJECTIVES:** This study examined the utilization pattern and predictors of the most combinations for MI patients. **METHODS:** Data from 2009 Medical Expenditure Panel Survey (MEPS) was employed to examine the use of anti-hypertensive drug combinations among MI patients, defined by ICD-9-CM code '410'. Using MEPS sampling weights, descriptive analysis and survey logistic were used to evaluate prevalence and predictors of utilizing 2 or more anti-hypertensive drug combinations among MI patients. **RESULTS:** An estimated 5.9 million patients (1.93%, 95%CI: 1.70%-2.15%) were diagnosed with MI in 2009. Of these, 5.03 million patients (85.92%, 95%CI: 82.62%-89.22%) were using at least one anti-hypertensive and 3.60 million patients (60.87%, 95%CI: 56.19%-65.55%) were using a combination of ≥ 2 anti-hypertensives. Most frequently utilized combination of ≥ 2 anti-hypertensives was of Angiotensin inhibitors or Angiotensin receptor blockers (ACEARB) and Beta-blockers (BBS) with a prevalence of 2.41 million patients (40.86%, 95%CI: 36.35%-45.36%). Multivariate analysis revealed Hypertension (OR 2.43: 1.49 - 3.96), Congestive Heart Failure or CHF (OR 3.05: 1.33 - 7.00), and Chronic Atherosclerosis (OR 2.08: 1.32 - 3.29) as its statistically significant predictors of two or more hypertensive combinations. The most prevalent combination of ≥ 3 anti-hypertensives was for a combination of ACEARB, BBs and Diuretics with a prevalence of 1.19 million (20.11%, 95%CI: 16.52%-23.70%). The significant predictors of utilizing this combination were Presence of any limitation (OR 3.47: 1.69 - 7.13), Hypertension (OR 2.22: 1.08 - 4.58), CHF (OR 6.10: 2.92 - 12.73), and Chronic Atherosclerosis (OR 2.03: 1.12 - 3.70). **CONCLUSIONS:** Combinations of ACEARB and BBs with or without Diuretics were the most commonly used combinations in patients with MI. Comorbid hypertension, CHF and Chronic atherosclerosis were the primary disease-based predictors of these combinations.

PCV122

HOW WELL DO YOU KNOW YOUR PAYERS? SEGMENTATION AS A STRATEGIC TOOL FOR EFFECTIVELY PRIORITISING AND TARGETING PAYERS

Areteou T¹, Devienne E¹, Whitcher C¹, Huyghe N²¹Double Helix Consulting, London, UK, ²Solutions2, Bachte-Maria-Lerne, Belgium

OBJECTIVES: Customer segmentation is a strategic tool employed by the pharmaceutical and life sciences industries traditionally focusing on understanding physicians and patients. With resources and budget cuts, pharmaceutical companies have increasingly identified the need to successfully and cost-effectively prioritise and target payers by understanding their drivers, motivations, barriers and limitations when assessing, endorsing or restricting new products. Our study aimed to develop an attitudinal based, scalable payer segmentation model to investigate payers' attitudes and behaviours towards the managed entry of novel agents in the cardiology area in the health care systems of countries within the EU. **METHODS:** A quantitative data collection and advanced statistical analysis methodology was employed with regional and local payers in eight markets to define the segmentation according to attitudes and beliefs relevant to the therapy area. Subsequently, in-depth semi-structured telephone interviews were conducted to explore the rationale behind payers' views, along with perceived challenges relating to the entry of novel class of cardiovascular agents. **RESULTS:** Quantitative segmentation identified four key distinct segments of payers displaying unique attitudes and beliefs towards entry of the novel class of cardiovascular agents. The segmentation approach identified key differentiating factors between segments, allowing full profiling of each group. Payers' underlying values were identified and expanded upon resulting in insight to what is important to them as individuals as well as decision-makers, what motivates them and what restricts them. **CONCLUSIONS:** This method of segmentation proved valuable in gaining payer insights which were utilized to prioritise targeting of payer segments. In addition, communication and messaging strategies were optimised for these payer groups. The findings helped inform service redesign strategies within health care systems to include the novel agents in the treatment guidelines and to reduce human and financial resources when treating the specific condition.

PCV123

A SYSTEMATIC REVIEW ON THE APPLICATION OF ELECTROCARDIOGRAPHS TRANSMITTED PRIOR TO HOSPITAL ARRIVAL ON DOOR TO TREATMENT TIMES

Tasic D¹, Baker ER², Mallow P², Turgeon K¹¹GE Healthcare, Wauwatosa, WI, USA, ²S2 Statistical Solutions, Cincinnati, OH, USA

OBJECTIVES: The prompt treatment of ST segment elevation myocardial infarction (STEMI) is associated with conservation of cardiac function and reduced mortality. Acquisition of pre-hospital electrocardiogram (ECG) by first responders and digital transmission of the ECG to the hospital has been identified as a strategy to reduce time to treatment to the recommended 90 minutes. The purpose of this study was to summarize the literature on the difference between patients with pre-hospital ECG to patients with in-hospital ECG. **METHODS:** This systematic review of MEDLINE indexed articles used the terms Dyspnea [MeSH] OR Chest Pain [MeSH] OR Myocardial Infarction/therapy

[MAJR] with Time Factor [MeSH] and Comparative Study [pub type]. Study inclusions were: English, human, publication between January 1, 2002 to November 30, 2012. Case reports, letters, news articles and reviews were excluded. Comparative studies which included a group with pre-hospital ECG with transmission to the hospital and a control group of patients with in-hospital ECG were eligible for inclusion. The data outcomes extracted included patient characteristics, onset to treatment (OTT) and door to treatment time (DTT). **RESULTS:** The search found 1029 articles, 8 passed two-tiered screening and were extracted. Three studies described thrombolysis, six studies described angioplasty (one study included both treatments). Four studies reported OTT, the pre-hospital ECG group had statistically significant shorter times (range 64-260 min pre-hospital ECG and 103-432 min in-hospital ECG). Six studies reported DTT the pre-hospital ECG group were statistically significantly shorter (range 20-100 min pre-hospital ECG group and 17-133 in-hospital ECG). Pre-hospital groups reported median DTT of <90 minutes (range 50-66 min). **CONCLUSIONS:** This review found significant beneficial differences in the onset to treatment and door to treatment times of STEMI patients with pre-hospital ECG. Transmission of pre-hospital ECG is an important component of a strategy to achieve door to treatment times of under 90 minutes.

PCV124

THE COST-EFFECTIVENESS OF TRANSCATHETER AORTIC VALVE IMPLANTATION VERSUS SURGICAL AORTIC VALVE REPLACEMENT IN PATIENTS WITH SEVERE AORTIC STENOSIS AT HIGH OPERATIVE RISK

Meads DM¹, Fairbairn TA¹, Hulme CT¹, Mather AN¹, Plein S¹, Blackman DJ², Greenwood JP²¹University of Leeds, Leeds, UK, ²Leeds General Infirmary, Leeds, UK

OBJECTIVES: To determine the cost-effectiveness of Transcatheter aortic valve implantation (TAVI) compared to surgical aortic valve replacement (SAVR) in a high-risk aortic stenosis (AS) population from the perspective of the UK health and personal social services. **METHODS:** A Markov model was developed to enable a cost-utility analysis employing NICE reference case methods. A systematic review was conducted to identify model parameter values. Mean utility values per NYHA category were derived from a UK high-risk AS population. Two-year TAVI and SAVR effectiveness was taken from the PARTNER A trial. Costs and effects were modelled from two years over a 10 year horizon via NYHA health state transitions. Incremental cost-effectiveness ratios (ICER) and cost effectiveness acceptability curves (CEAC) were calculated and deterministic and probabilistic sensitivity analyses conducted. **RESULTS:** Despite greater procedural costs (£16,500 vs. £9,256), TAVI was cost-effective compared to SAVR over 10 years (costs £52,593 vs. £53,943 and QALYs 2.81 vs 2.75), indicating TAVI dominated SAVR. This appeared to be due to greater SAVR post-surgical costs and attendant length and cost of hospital stay. The results appeared robust to a number of deterministic sensitivity (including high stroke rates, worst case scenario complication rates, alternative utility values and higher costs) and probabilistic analyses. Given modest cost savings and QALY benefits conferred by TAVI, results were sensitive to some parameter changes when incurred by one arm in isolation. The CEAC indicated that at a £20,000 incremental QALY willingness to pay threshold, TAVI had a 64.6% likelihood of being cost-effective. **CONCLUSIONS:** This economic evaluation is the first to incorporate two year data comparing TAVI and SAVR in elderly high risk AS patients. TAVI is likely to be a cost-effective option compared to SAVR. However, uncertainty surrounding the long-term outcomes for TAVI patients remains; this could have a substantive impact on estimates of cost-effectiveness.

PCV125

TRENDS IN SMOKING STATUS AND UTILIZATION OF SMOKING CESSATION AGENTS AMONG FEMALES WITH CARDIOVASCULAR DISEASE FROM 2001-2010

Gangal N¹, Shah S¹, Bechtol R², Vaidya V²¹The University of Toledo, Toledo, OH, USA, ²The University of Toledo, College of Pharmacy and Pharmaceutical Sciences, Toledo, OH, USA

OBJECTIVES: Cigarette smoking is a major risk factor for cardiovascular disease. Recent research has shown that deaths due to cardiovascular problems are double in women who smoke. The use of smoking cessation agents is one of the most effective ways to quit smoking. The purpose of this study is to analyze trends in smoking status and utilization of smoking cessation agents in women with cardiovascular disease from 2001-2010. **METHODS:** A longitudinal retrospective database analysis was done to identify smokers with cardiovascular disease during the period from 2001 to 2010 by using Medical Expenditure Panel Survey (MEPS) data. Trends in smoking status and patient reported use of smoking cessation agents were observed to compare prevalence of smoking and use of cessation agents among women. **RESULTS:** A cohort of 8331 smokers with cardiovascular disease was identified over a 10 year period which showed more female smokers than males. There was an inconsistent increase in the number of female smokers from 2001 to 2010 with maximum smokers of 54.33% in 2003. After 2003, the percentage of female smokers started decreasing inconsistently. Female smokers using smoking cessation agents in 2007 were 8.51% and later there was a consistent decrease in the use of these agents until 2010, which reached 5.29%. The 10-year data showed that females were more likely to use smoking cessation agents than males. **CONCLUSIONS:** Despite the increased risk among female smokers, results indicate higher prevalence of smoking among women. Although the utilization of smoking cessation is increasing, overall proportion of users is still considerably low. There is a need for continued efforts to reduce smoking among women more aggressively. Increasing utilization of smoking cessation agents may help in changing current trends.