who suffered a VTE event and those that did not. Risk adjustment was done using propensity score matching (using the PropChoice™ algorithm) controlling for baseline demographic and clinical characteristics between patients with and without VTE. RESULTS: In patients who underwent total knee replacement surgery (n = 104,952), 1.9% had post-operative VTE events during their initial hospitalization. Almost 69% (n = 1377) of these patients had deep vein thrombosis (DVT), 25% (n = 501) had pulmonary embolism (PE), and 6% (n = 119) had both DVT and PE. After multivariate adjustment for pre-specified covariates, mortality was almost 50% higher for patients with VTE compared to those without VTE. Differences in mortality rate were more pronounced for PE patients, whom the event was associated with almost two-fold. The VTE group was more likely to be re-hospitalized in one year (odds ratio: 1.44, p = 0.02). Bleeding was 2.26 times higher (p = 0.009). CONCLUSIONS: VTE events during initial hospitalization for hip fracture surgery increased the mortality, re-hospitalization and bleeding compared with no VTE events.

PCV4 COMPARISON OF MORTALITY, RE-HOSPITALIZATION AND BLEEDING RATES OF MEDICARE PATIENTS WHO UNDERWENT KNEE REPLACEMENT SURGERY AND SUFFERED VENOUS THROMBOEMBOLISM VERSUS NO VENOUS THROMBOEMBOLISM
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OBJECTIVES: To estimate re-hospitalization and bleeding rates during the 90 days after a venous thromboembolism (VTE) event in patients who underwent knee replacement surgery and compare the outcomes with those who did not suffer a VTE. METHODS: Based on 2005–2007 national Medicare claims, all patients who underwent knee replacement surgery were identified. The 90 days follow-up event rates for patients who had a VTE event during their initial hospitalization were calculated. Event rates were compared between patients who suffered a VTE event and those who did not. Risk adjustment was done using propensity score matching (using the PropChoice™ algorithm) controlling for baseline demographic and clinical characteristics between patients with and without VTE. RESULTS: In patients who underwent total knee replacement surgery (n = 104,952), 1.9% had post-operative VTE events during their initial hospitalization. Almost 69% (n = 1377) of these patients had deep vein thrombosis (DVT), 25% (n = 501) had pulmonary embolism (PE), and 6% (n = 119) had both DVT and PE. The overall likelihood of mortality was four times higher for VTE patients compared to those without VTE (1.35% vs. 0.33%). Patients with VTE during their initial hospitalization were more likely to be hospitalized in 90 days (compared to patients without an event during the same hospital stay (16.62% vs. 8.00%)). In 90 days after the event, patients with VTE were more likely to have bleeding (10.17% vs. 2.68%). CONCLUSIONS: VTE events during initial hospitalization for total knee replacement surgery increased the adverse events compared with no VTE events.

PCV5 ADVERSE EVENT ANALYSIS FOR MEDICARE PATIENTS WHO UNDERWENT HIP FRACTURE SURGERY AND SUFFERED VENOUS THROMBOEMBOLISM
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OBJECTIVES: To estimate re-hospitalization and bleeding during the 30 days after a venous thromboembolism (VTE) event in patients following hip fracture surgery and to compare the outcomes with patients without VTE. METHODS: Based on 2005–2007 national Medicare claims, all patients who underwent hip fracture surgery were identified. The 30 days follow-up event rates for patients who had a VTE event during their initial hospitalization were calculated. Events were compared between patients who suffered a VTE event and those who did not. Risk adjustment was done using propensity score matching controlling for baseline demographic and clinical characteristics between patients with and without VTE. RESULTS: In patients who underwent hip fracture surgery (n = 50,245), 1.3% had post-operative VTE during their initial hospitalization. Almost 77% (n = 573) of these patients had deep vein thrombosis (DVT), 20% (n = 141) had a pulmonary embolism (PE), and 3% (n = 34) had both DVT and PE. Patients with VTE during their initial hospitalization were more likely to be hospitalized in 30 days (compared to patients without an event during the same hospital stay (32% vs. 6.82%). In 30 days after the event, patients with VTE were more likely to have bleeding (10.17% vs. 0.68%). CONCLUSIONS: VTE events during initial hospitalization for hip fracture surgery patients increased the adverse events compared with no VTE events.

PCV6 A META-ANALYSIS OF EFFICACY OF ATORVASTATIN IN COMPARISON TO PRAVASTATIN, SIMVASTATIN AND ROSUVASTATIN FOR THE CONTROL OF DYSLIPIDEMIA AND CARDIOVASCULAR EVENTS PREVENTION
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OBJECTIVES: The aim of this study was to conduct a meta-analysis of randomized clinical trials (RCTs) to identify the effectiveness and safety of atorvastatin, simvastatin and rosuvastatin. METHODS: A systematic review was performed including RCTs in primary and secondary prevention where total cholesterol, LDL-C, HDL-C, major cardiovascular events, as well as adverse events frequency were analyzed. RCTs were searched in March 2009 in Medline, Embase and the Cochrane Collaboration. Two independent reviewers identified all articles, selected the abstracts, and extracted data. Odds ratios (OR) and weighted means differences were calculated with 95% confidence intervals (95% CI). Random effects models were employed in the Meta-analyses using RevMan v.5.0 software. RESULTS: From 7539 studies, 66 RCT were selected. Atorvastatin showed statistically a higher improvement in LDL-C, total cholesterol, HDL-C and triglycerides in comparison to pravastatin and simvastatin (5%–15%). Rosuvastatin was statistically superior against atorvastatin in LDL-C and total cholesterol, however not in HDL-C and triglycerides (p < 0.01). Atorvastatin obtained higher reductions in all AMI, myocardial infarctions, unstable angina and 68,299 patients were identified as taking ACE/ARBs during the observation period from January 2002 to December 2004. Potential DDIs were defined as medication possession data indicating an object drug (ACE/ARB) and a precipitant drug (potassium sparing diuretics) were taken with overlapping dates. The first day of overlap between an ACE/ARB and the DDI index date. A 6-month washout period was used for exposures. Exposed patients were matched 1:1 to controls taking ACE/ARB and assigned the same index date. Exact matching was done on sex, race, CHF comorbidity, and cerebrovascular disease comorbidity and close matching was done for age (±50) and the date of ACE/ARB (±45). Outcomes included hospitalizations and ER visits within 30 days of the index date and payments associated with these services.
OBJECTIVES: To examine incidence of and the health outcomes associated with potential drug-drug interactions (DDIs) between ACE/ARBs and potassium sparing diuretics among Medicare patients. METHODS: A retrospective matched cohort study was conducted of beneficiaries in the Mississippi Medicaid program from January 2002 to December 2004. Potential DDIs were defined as medication possession data indicating an object drug (ACE/ARB) and a precipitant drug (potassium sparing diuretics) were taken with overlapping dates. The first day of overlap between an ACE/ARB and the DDI index date. A 6-month washout period was used for exposures. Exposed patients were matched 1:1 to controls taking ACE/ARB and assigned the same index date. Exact matching was done on sex, race, CHF comorbidity, and cerebrovascular disease comorbidity and close matching was done for age (±50) and the date for ACE/ARB (±45). Outcomes included hospitalizations and ER visits within 30 days of the index date and payments associated with these services. RESULTS: A total of 68,299 patients were identified as taking ACE/ARBs during the observation period with 5372 (8.4%) exposed to a potential DDI. A total of 3599 exposed patients were matched. The effect of DDI exposure on hospitalization and ER visit rates was tested using SAS fixed effects logistical regression while controlling for sex, age, race and overall Charlson comorbidity index. The point-specific odds ratio for DDI exposure was 1.41 (95% CI = 1.29–1.54) for hospitalization and 1.21 (95% CI = 1.11–1.31) for ER visits. A paired t-test was used to examine differences in Medicaid payments during the 30 days after the index date. Total payments were significantly higher (p < 0.001) for the exposed patients ($2289) than for the control patients ($1,614). CONCLUSIONS: Potential ACE/ARB DDIs were a significant problem among the Mississippi Medicaid patients and during the study period; potentially contributing more than $3.7M in additional health care costs.

PCV8 CLINICAL RELEVANCE OF PHARMACOLOGICAL INTERACTIONS
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OBJECTIVES: Adverse events –Aes—due to medication errors are numerous. One type of error is the combination of substances with a known unwanted pharmacological interaction. In the years 2001 to 2006 a total of 39521 AEs with ICD10 codes indicating drugs as reasons where documented in Austrian hospitals. There is no reporting system or documentation for adverse events in ambulatory care. So the rate with AEs in the outpatient setting is unknown. One of the main projects in Austria e-health roadmap is an e-medication system. Due to the foreseeable costs an estimation and calculation of potential benefits is mandatory. METHODS: We use reimbursement data of the Austrian social insurance companies covering the years 2006 and 2007. The domains included are pharmaceutical reimbursement, reimbursement of outpatient medical services, hospital reimbursement data and sick leave data. We focus on interactions between the following pharmaceutical groups: 1. ATC code C10AA—benzodiazepines, 3. ATC code J01FA makrolide antibiotics and 4. ATC code C01BD amiodarone. RESULTS: The main question to answer is the prevalence and incidence of such interaction patterns. This will lead to a description of the epidemiology of potential AEs which can at least be qualified as medical errors. The second question is the frequency of clinical relevance (and economic) relevance is ascertained, if the interaction needs medical treatment. The detection of outcomes of an interaction is the main challenge. CONCLUSIONS: The extent to which an e-medication system can improve patient safety can be estimated.