Abstracts

considered all patients undergoing elective, urgent, or emergent PCI at Mayo Clinic Rochester between 3/1/1998–3/31/2003 in analyses. Clinical, angiographic, and outcome data were derived from the Mayo Clinic PCI Registry. In-hospital PCI complications included major adverse cardiac and cerebrovascular events (MACCE) (defined as death, myocardial infarction [MI], emergent coronary bypass surgery, repeat PCI, or stroke) and bleeding of clinical significance. Administrative data was used to estimate total costs (hospital and physician) in standardized, year 2004 constant-dollars. We used generalized linear modeling to estimate the incremental costs associated with complications adjusting for demographic, clinical, angiographic, and procedural characteristics. RESULTS: 1071 (13.2%) of patients experienced at least one of the selected complications during hospitalization. Patients experiencing complications were older, more likely to present with emergent PCI, recent or prior MI, multi-vessel disease, B2/C type lesions, and comorbid conditions than patients who did not experience these events. Unadjusted total costs were, on average, $27,865 ± 39,424 for patients who experienced any complication compared to $12,279 ± 6796 for those who were free of complications (p < 0.0001). Adjusted mean total costs were $7000 higher for patients experiencing complications compared with patients who were complication free (95% CI of cost difference: $5,854, $8,145). Incremental costs associated with only bleeding events, only MACCE, or for patients experiencing bleeding and MACCE events were $5813, $5151, and $15,699, respectively (p < 0.0001). CONCLUSIONS: This observational study highlights the significant economic burden associated with in-hospital procedural complications. Interventions to reduce the risk of adverse events likely enhance financial as well as clinical performance.

PCV87

VITAe Thrombosis Study: The Prevalence and Burden of Venous Thromboembolic Disease (VTE) in Europe

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OBJECTIVE: The prevalence of VTE and its associated morbidity and mortality is difficult to assess. This is due to its often silent nature, difficulty of diagnosis and follow up, and lack of routine post-mortems. This is thought to result in marked underestimates of its true burden. VITA is the first large-scale study that aims to determine the burden of VTE at a European level. METHODS: A modified incidence-based epidemiological model was developed to estimate the number of VTE events and deaths taking into consideration recurrence and complications. Separate models were constructed for France, UK, Germany, Italy, Sweden and Spain; the total number VTE events were extrapolated for the EU. These comprehensive models were populated with published literature when available and expert observation when necessary. Both community-acquired and hospital-acquired events were derived. The former were based on a large European epidemiological study (EPI-GETBO); and the latter were derived using a hospital episode statistics database in conjunction with a “bottom-up” approach. RESULTS: The total annual burden of VTE across the EU was estimated to be 641,275 symptomatic deep-vein thromboses (DVT), and 382,550 pulmonary emboli (PE). VTE-related deaths were estimated at 478,500. Of these deaths, 34,450 (7%) patients had been diagnosed with VTE and treated, 163,050 (34%) were estimated to be sudden fatal PE and 281,000 (59%) followed undetected PE. These findings were tested using probabilistic sensitivity analyses. CONCLUSIONS: The VITAe study confirms that VTE is a major public health problem in the EU. Many of these events and deaths were sudden or due to undetected disease. Given the availability of effective VTE prophylaxis, many of these events and deaths are preventable. This is of particular importance in the medical setting where the implementation of prophylaxis remains suboptimal. Further research to estimate the impact of increased prophylaxis use is urgently needed.

PCV88

TREATMENT PATTERN, RESOURCE UTILIZATION AND COSTS OF INPATIENT THROMBOPROPHYLAXIS IN POLAND

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OBJECTIVE: There are limited data documenting common strategies used for inpatient thromboprophylaxis or describing the costs associated with common treatment modalities. The aim of the study was to assess treatment patterns, utilization of health care resources and hospital costs associated with thromboprophylaxis in real-world clinical practice in Poland. METHODS: Data from inpatient records were collected prospectively for patients hospitalized in 25 departments between 31.04.2004 and 31.05.2005. Stratified analyses were performed by baseline risk of thrombosis and means of total cost for each group were calculated, using participating hospitals account systems. Costs comparisons related to risk groups were performed using non-parametric tests with significance level of 0.05. RESULTS: The database contains information about 5348 patients. Of these 35% were general surgery, 23% medical, 15.3% vascular and 13% orthopedic surgery patients. 59% of patients were at highest risk of VTE (I), 24% at high (II), 10% at moderate (III) and 7% at low risk (IV). Thromboprophylaxis received 84%, 77%, 71% and 60% patients in I, II, III, and IV group, respectively. Most admissions (76%) involved LMWHs treatments, administered for mean 10.2, 6.3, 6.0 and 5.8 days in group I,II,III and IV respectively. Adverse events related to thromboprophylaxis occurred in 2% of patients; 85% of these were minor hemorrhages, 9% major hemorrhages, 2% thrombocytopenia. Post-discharge thromboprophylaxis was indicated for 34.6% patients, most frequently in patients after orthopedic surgery (81.3%), trauma (66.3%) or cardiological hospitalizations (49%). The most common regimen in extended thromboprophylaxis was LMWHs (77%). Mean cost of thromboprophylaxis was 999 (+/-5964) PLN in I, 327 (+/-1598) PLN in II, 260 (+/-695) PLN in III and 232 (+/-842) PLN in group IV (1 EURO = 4 PLN, 2005) (p = 0.0001). CONCLUSION: Results from this study indicate that inpatient thromboprophylaxis is in line with clinical guidelines. The risk stratification of hospitalized patients allows for the estimation of costs.

PCV89

Cost-effectiveness of an extended four-week Fondaparinux Prophylaxis Regimen for the Prevention of Thromboembolic Events in Patients Undergoing Major Orthopedic Surgery

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OBJECTIVES: Patients undergoing major orthopaedic procedures such as hip fracture surgery (HFS) and total hip replacement (THR) are at increased risk of developing venous thromboembolic events (VTE). It was shown in the Penthithra plus trial that extending fondaparinux prophylaxis from 1 week to 4 weeks reduces the risk of VTE by 96%. Whether prolonged