IMPACT OF GUIDELINES FOR TREATMENT AND PROPHYLAXIS OF VENOUS THROMBOEMBOLISM IN COMMUNITY HOSPITALS

Fabunmi R1, Nutescu EA2, Theobald JC2, Wojynjak JE3, Schumock GT4

1University of Illinois at Chicago, Chicago, IL, USA, 2HealthTrust Purchasing Group, Brentwood, TN, USA, 3ProCE, Inc, Bartlett, IL, USA

OBJECTIVE: To evaluate the impact of guidelines for treatment and prophylaxis of VTE on appropriateness of anticoagulant therapy. JCAHO performance measures, adverse drug outcomes, and total cost of therapy. METHODS: We conducted a multi-hospital "pre-post" guideline intervention study. Guidelines for VTE treatment and prophylaxis were developed and implemented in the participating hospitals. Retrospective chart review was used to collect patient data during the pre and post periods.

RESULTS: The number of participating hospitals and total patient cases submitted by the hospitals were 23 and 617, respectively in the pre-guideline (PRG) phase and 13 and 338, respectively in the post-guideline phase (POG). The appropriateness of prescribing (as measured by the dose, duration, and the type of anticoagulant used) increased by 7% (PRG 77%, POG 84%). JCAHO performance measures for 1) percentage of VTE patients receiving education; 2) percentage of patients with reduced LMWH dosage in compromised renal failure; 3) percentage of patients with normal INR; 4) percentage of patients with objective confirmation of clinically suspected VTE; 5) percentage of unfractionated heparin (UFH) managed by nomogram/protocol; and 6) percentage of patients with anticoagulation overlap of parenteral and warfarin therapy, increased by 20%, 17%, 13%, 9%, 6%, and 1%, respectively. JCAHO measures for 1) VTE treatment for discharged patients with active cancer, and 2) platelet count monitoring for patients with VTE receiving UFH, decreased by 2% and 11%, respectively. The proportion of patients experiencing at least one anticoagulant related adverse drug outcome decreased by 0.5% and rates of major bleeding decreased by 1% in POG. On average, the total cost of therapy (cost of major/minor bleeding, DVT, PE and drugs costs) decreased by $105 per patient in POG.

CONCLUSION: Implementation of VTE treatment and prophylaxis guidelines improved appropriateness of anticoagulant therapy in the participating hospitals resulting in improved outcomes, reduced costs, and improved quality performance.

DIABETES/ENDOCRINE DISORDERS—Clinical Outcomes Studies

EXENATIDE UTILIZATION AND EFFECTIVENESS IN A HEALTH PLAN POPULATION

Schroeder B1, Misurski D2, Wade R3, Quimbo R4, Nielsen L5, Fabunni R6, Windle M7

1Amylin Pharmaceuticals, Inc, San Diego, CA, USA, 2Eli Lilly and Company, Indianapolis, IN, USA, 3HealthCore, Inc, Wilmington, DE, USA

OBJECTIVE: Numerous clinical outcomes trials have demonstrated the benefits of achieving glycemic goals in patients with type 2 diabetes (T2D). In controlled clinical trials, the incretin mimetic exenatide improved glycemic control in patients with T2D; 34% to 46% of patients achieved A1C ≤7% and mean A1C change from baseline was -0.8% to -0.9% (baseline A1C 8.2% to 8.7%). To investigate the effects of exenatide in clinical practice, this retrospective cohort study used a large, US commercial health plan claims database to describe baseline characteristics, comorbidities, concomitant therapies, and clinical effectiveness in patients initiated on exenatide. METHODS: A total of 4936 patients were identified having a new prescription claim for exenatide between May 1, 2005 and June 30, 2006 (first claim = index date), with ≥12 months of pre- and post-index eligibility, and ≥18 years old. RESULTS: Mean (±SD) age was 53.7 ± 10.2 years (11.7% ≥65 y; 52% female). The 12-month mean (SE) medication possession ratio (MPR = days of supply/365 days) in patients with ≥1 prescription claim was 66 ± 30%. Most patients analyzed (94%) were treated with at least one other antidiabetic medication at initiation (100 d pre-index to 15 d post-index); 25% with one drug, 35% with two drugs, and 34% with ≥3 drugs. The mean number of antidiabetic drugs (including exenatide) per patient was similar at initiation (3.08) and post-index (3.05). Clinical effectiveness was measured in all patients with an A1C >7.0% at baseline (≥100 d pre-index) and having both baseline and post-index (60–365 d) A1C data available (n = 201; mean baseline A1C = 8.9 ± 1.5%). In this cohort, 31% achieved A1C ≤7% in the post-index period and mean A1C change from baseline was −0.8%. CONCLUSION: The mean change in A1C and percentage of patients achieving A1C ≤7% in this real-world analysis mirrored results of controlled clinical trials. Furthermore, glycemic improvement was achieved without a further increase in concomitant antidiabetic drugs.

HBA1C GOAL ATTAINMENT IN RELATION TO DOSE AMONG DIABETES PATIENTS USING METFORMIN

Penning-van Beest E1, Wolffenbuttel BH2, Herings RM3

1PHARMO Institute, Utrecht, Netherlands; 2University Medical Centre Groningen, Groningen, Netherlands

OBJECTIVE: To study dosing frequency of metformin in relation to HbA1c-goal attainment in daily practice. METHODS: Data for this nested case-control study were obtained from the PHARMO Record Linkage System, including among others linked drug-dispensing and clinical-laboratory records of approximately three million individuals in defined areas of The Netherlands. The study cohort included new users of oral glucose-lowering drugs (OGLD) between 1999-2005, with a baseline HbA1c ≥7% and consecutive HbA1c-measurements within 18 months. Cases attained HbA1c-goal (HbA1c ≤7%) within 18 months. Controls did not attain HbA1c-goal. Compliant cases and controls on metformin monotherapy were included in the analyses. Dosing frequency was dichotomized into once-daily and twice-daily or more. In the multivariate analysis we considered OGLD-dose, baseline HbA1c, prescriber and number of HbA1c-measurements. RESULTS: The study cohort included 3107 new OGLD-users. The analyses included 753 cases and 477 controls using metformin. Dosing twice-daily or more was associated with a 71% higher probability of attaining goal (OR 1.71 [95%CI 1.31–2.24]) compared to once-daily dosing, after adjustment for baseline HbA1c and prescriber. We could not distinguish between the effect of dose and dosing frequency as these were closely related. Statistical testing in the analyses stratified by dose was prohibited by small numbers. CONCLUSION: About 40% of compliant metformin users were not at goal because of dosing problems. A strong correlation between total daily dose and dosing frequency did, however, not permit to identify one of these dosing items as most important attribute.

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