plasma glucose (FPG) were obtained. The definition of metabolic syndrome encompasses three or more of the following abnormalities: WHR >0.9 in men and >0.85 in women, BMI >23 kg/m², BP >140/90 mmHg, FPG >110 mg/dL, HDL <40 mg/dL in men and <50 mg/dL in women, TG >150 mg/dL.

RESULTS: Data were available in 686 Korean American subjects, 62% females. The prevalence of metabolic syndrome in our sample was 25%. Frequency of elevated BP, elevated TG, low HDL, and FPG were 32%, 21%, 29%, and 12%, respectively. Overall obesity, measured by BMI, was 35% and centrally obesity, measured by WHR, was 35%. When compared between men and women, the prevalence of metabolic syndrome in men was 32% and 20% seen among the women (95% CI, 0.061, 0.198; p < 0.001); increased central adiposity was similar in both men (35%) and women (35%); and FPG was significantly elevated in men (18%) than in women 9% (95% CI, 0.035, 0.142; p = 0.001). CONCLUSION: Multiple metabolic disorders are present in the Korean Americans. Early detection and treatment of hypertension, dyslipidemia, obesity, and glucose intolerance can prevent the progression of diabetes mellitus and CVD.

PCVS6
EVALUATION AND COMPARISON OF DIFFERENT MODELS OF METABOLIC SYNDROME USING CONFIRMATORY FACTOR ANALYSIS
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OBJECTIVES: 1) To examine the differences in models of metabolic syndrome developed using exploratory factor analysis (EFA) versus confirmatory factor analysis (CFA) in the Insulin Resistance Atherosclerosis Study (IRAS) population; and 2) To measure validity and reliability of the variables used to measure each factor. METHODS: The subjects were from a previously studied cohort of 1087 nondiabetic participants in the IRAS, a study of the relationships among insulin resistance and cardiovascular disease risk factors. Data from this study were used to test two hypothesized models. In the first model, previously developed using EFA, two latent factors were proposed: a “hypertension factor;” and a “metabolic factor,” consisting of variables measuring obesity, hyperlipidemia, and obesity status. The second hypothesized model consisted of four-factors (hypertension, hyperlipidemia, insulin resistance, and obesity). A CFA was performed testing the hypothesized models using EQS Multivariate Software Version 5.7b with maximum likelihood estimation. Construct validity and reliability of the variables used to measure the factors were then assessed in the model with best fit. RESULTS: The 4-factor model exhibited better fit than the 2-factor model using criteria established by Hu and Bentler (chi-square = 577.3, df = 5). The final four-factor model exhibited a good fit (CFI = 0.963, SRMR = 0.036, RMSEA = 0.077). There were significant intercorrelations between all the hypothesized factors. A residual variance correlation was required between the insulin sensitivity index variable and the fasting glucose variable. All factors except the lipid factor (measured using HDL and triglycerides) exhibited good values for construct reliability and variance extracted. CONCLUSION: The results of this analyses show that metabolic syndrome is best explained by a four-factor model in the IRAS population, rather than the previously described two-factor model that was developed using EFA. The hyperlipidemia factor is not well defined, and suggests that additional variables may be required to adequately measure this factor.

PCVS7
COST OF MAJOR BLEEDING FOLLOWING MAJOR ORTHOPEDIC SURGERY
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OBJECTIVES: While effective in reducing the risk of venous thromboembolism (VTE) following major orthopedic surgery (MOS), antithrombotics can increase the risk of major bleeding. We assessed impact of major bleeding following MOS on length of stay (LOS) and inpatient charges. METHODS: Using a database containing information on ~750,000 admissions annually to 100+ US acute-care hospitals (MQProfile, Cardinal Information Corp.), we identified all patients whom underwent MOS between January 1, 1998 and December 13, 2000. Patients were stratified according to whether or not they experienced major postoperative bleeding prior to hospital discharge, defined as: a) fatal bleeding; b) nonfatal bleeding at critical site; c) reoperation due to bleeding; and d) overt bleeding with bleeding index (BI) > 2, where BI = number of blood units transfused plus pre-bleeding minus post-bleeding hemoglobin (g/dL) values. LOS and inpatient charges were compared between patients with and without major bleeding; findings were also examined for each of the constituent measures of the composite endpoint. RESULTS: A total of 23,518 patients were identified who underwent MOS; 2.6% experienced major bleeding (fatal bleeding, 0.1%; nonfatal bleeding at a critical site, 0.2%; reoperation due to bleeding, 0.7%; and overt bleeding associated with a BI > 2, 1.7%). In multivariate analyses controlling for differences in baseline characteristics between patients with and without major bleeds, adjusted mean LOS was 1.8 days longer (95% CI: 1.5, 2.0) among the former (6.1 days vs. 4.3 days for those without bleeds); adjusted mean inpatient charges were $7593 higher (95% CI: $6622, $8646) ($25,669 vs. $18,076). CONCLUSION: Major bleeding following MOS significantly increases LOS and hospital charges. Small absolute increases in the risk of major bleeding may translate into additional costs of inpatient care that counterbalance cost savings associated with VTE events averted. Cost of major bleeding following MOS should factor into choice of VTE prophylaxis.

PCVS8
CLINICAL AND ECONOMIC ISSUES IN THE PREVENTION OF VENOUS THROMBOEMBOLISM IN HOSPITALIZED ORTHOPEDIC PATIENTS: ENOXAPARIN VERSUS WARFARIN
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OBJECTIVES: Current American College of Chest Physicians’ guidelines recommend Venous Thromboembolism (VTE) prophylaxis for orthopedic patients. This study examines prophylactic therapy received by hospitalized orthopedic patients, rate of secondary diagnosis of VTE, and compares overall hospital costs by major cost-centers among enoxaparin and warfarin-treated patients in order to rationalize drug use. METHODS: An administrative database of 720,982 discharges containing ICD-9-CM coding and other data from hospitals across the U.S. was analyzed. Study patients were those whom underwent hip or knee replacement procedures, and were prescribed warfarin or enoxaparin. Length of stay (LOS), age, gender, number of diagnoses (ND), and in-hospital deaths were compared between warfarin and enoxaparin cohorts using independent t-tests and chi-squared analysis. Least-squares regression was used to
Abstracts

COST SAVINGS ASSOCIATED WITH FINER DOSING INCREMENTS THROUGH THE USE OF NORDITROPIN NORDIFLEX® IN THE UNITED STATES

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Fixed dosing increments in injectable devices may lead to potential inefficiencies such as overdosing in weight-based regimens. Finer dosing increments can reduce product wastage and translate into cost savings. OBJECTIVE: To compare overdosage and wastage (therefore cost) due to Norditropin NordiFlex® 5mg to that of other somatropin (human growth hormone, rDNA origin) delivery systems (Norditropin NordiPen® 5mg, Genotropin® 5mg, Humatrope® 6mg, and Nutropin® 10mg) in children. METHODS: Total recommended daily dose of somatropin was calculated over a range of body weights and weight-based (mg/kg) dosing regimens. Only body weights resulting in a daily dose up to the maximum allowable dose for each delivery system were considered. The amount of product dispensed at each dose was determined based on dosing increments for each delivery system. Dosing increments for Norditropin NordiFlex® were 0.025mg, compared to 0.05–0.2mg for other delivery systems. The amount of somatropin administered by Norditropin NordiFlex® and associated annual costs were compared with other somatropin delivery systems. Drug costs were based on current wholesale acquisition costs (WAC). RESULTS: At a daily dose of 0.030mg/kg, product wastage in Norditropin NordiFlex® was 5.3%, 3.8%, 3.8%, and 1.8% lower than Humatrope®, Nutropin®, Genotropin®, and Norditropin NordiPen®, respectively. The annual cost due to Norditropin NordiFlex® was estimated at $14,580, and was $11,723.3 for warfarin patients versus $11,963.9 for enoxaparin patients, after controlling for significant differences. Enoxaparin patients incurred more on Operating-and-Recovery rooms ($766.4), Medical/Surgical acute units ($487.3), and Laboratory ($39.6). CONCLUSIONS: Overall rate of secondary diagnosis of VTE is very low for orthopedic patients given prophylaxis; however, warfarin prophylaxis showed a higher rate. Enoxaparin demonstrated a better clinical outcome, but warfarin was significantly less expensive. Further research is needed to reconcile the clinical versus financial outcome findings from these analyses.

ENDOCRINE DISORDERS

COST-UTILITY OF NORDITROPIN® (R-DNA SOMATROPIN) IN CHILDREN WITH GROWTH HORMONE DEFICIENCY

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About 20,000 children in the US receive somatropin (human growth hormone, rDNA origin) for the treatment of growth hormone deficiency (GHD), with approximately 4000 new cases annually. While the cost-effectiveness of somatropin for the treatment of GHD has been assessed in the UK, to our knowledge no estimates for the US have been reported. OBJECTIVE: To generate estimates of cost-effectiveness/utility of Norditropin® (r-DNA somatropin) in the treatment of GHD in children. METHODS: A decision-analytic model of the epidemiology and treatment of GHD in children was developed. Treatment of GHD was assessed in two hypothetical cohorts compared to no treatment–treatment with Norditropin® 0.030mg/kg/day from ages five through 16 years, and treatment from ages three through 18 years. Costs included those related to drug acquisition, endocrinologist consultations, and primary care office visits. Estimates of patient weight by age and sex were derived from published literature, as was the proportion of patients achieving normal height within Norditropin® treatment and pre/post-treatment patient utilities. Cost-effectiveness/utility was estimated over patients’ expected lifetimes, and was stated alternatively as discounted (3% per annum) US dollars per normal height year (NHY) gained, and cost per quality adjusted life-year (QALY) gained. Multivariate sensitivity analyses were conducted to ensure robustness of the model. RESULTS: The cost-effectiveness and cost-utility of treating children from ages five through 16 years with Norditropin® was estimated at $8909 per NHY gained and $36,955 per QALY gained, respectively. Treatment of children from ages three through 18 years was estimated to cost $9277 per NHY gained and $42,556 per QALY gained. Findings were relatively insensitive to variation in most model parameters. CONCLUSION: For both age cohorts, the cost-effectiveness/utility of Norditropin® in the treatment of GHD compares favorably to well-accepted threshold values. Thus, Norditropin® represents excellent value for money for the treatment of GHD in children.

HEALTH STATUS VALUES (UTILITIES) FOR THE SWEDISH POPULATION: A MODEL BASED ON THE EQ-5D ASSESSMENT OF ACTUAL HEALTH STATE, USING JACKKNIFE METHOD AND MULTIPLE REGRESSION ANALYSIS

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OBJECTIVE: To derive health status values (utilities) for the Swedish population. METHODS: EQ-5D data were collected through a mailing survey to a random sample (n = 2990) of the Swedish population (response rate 65%; complete data on 1741 (49.4% males; mean age 48.4). The model was estimated using the Jackknife method and multiple regression analysis. The full sample was randomly divided into 10 parts of approximately the