compare overall hospital costs between the two cohorts, controlling for differences in variable distribution. RESULTS: From 9234 patients who met the inclusion criteria, 4972 patients (53.8%) were prescribed warfarin and 5727 (62.0%) were females. Overall rate of secondary diagnosis of VTE was 0.08% (seven of 9241 patients; two enoxaparin and five warfarin patients). Apart from LOS (p = 0.8089), NSF (p = 0.2421), and gender (p = 0.4223), distribution of age (p < 0.0001) and in-hospital deaths (p = 0.0045) were found to be significantly different between the two cohorts. Overall mean hospital costs were found to be different (p < 0.0001) ($11,723.3 for warfarin patients versus $11,963.9 for enoxaparin patients), after controlling for significant differences. Enoxaparin patients incurred higher Medical/Surgical supplies ($616.7) and drugs/pharmacy ($312.1) expenses, while warfarin 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 SAVINGS ASSOCIATED WITH FINER DOSSING 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 overdosaging 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 0.05–0.2 mg 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%, and 1.8% lower than Humatrope®, Nutropin®, and Norditropin NordiPen®, respectively. The annual cost due to Norditropin NordiFlex® was estimated at $14,580, and was $811, $570, $390, and $265 lower than Humatrope®, Nutropin®, Genotropin®, and Norditropin NordiPen®, respectively. Greater savings (7.3%) were seen in lower body-weight groups. At a higher daily dose of 0.043mg/kg, product wastage (and corresponding annual cost) in Norditropin NordiFlex® was 6.1% ($1006), 4.2% ($684), 4.2% ($491), and 2.2% ($358) lower than Humatrope®, Nutropin®, Genotropin®, and Norditropin NordiPen® respectively. CONCLUSION: Compared to other delivery systems, Norditropin NordiFlex® reduces overdosage and wastage of growth hormone, consequently resulting in meaningful cost savings.

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
same size. As a first step, regression analysis in the full sample was performed, where VAS assessment (0–100) of actual health state constituted the dependent variable and dichotomized (some problem/considerable problem) answers on the five dimensions the independent. After excluding outliers, (standardized [z-] residuals <−2.5 or >2.5), ten pairs of analyses were performed, excluding one part of the sample at the time. From the first analysis in each pair, outliers were excluded and the second analysis was performed. The coefficients gained in the second analysis were used to calculate Jackknife estimates of “true” coefficients.

RESULTS: The model estimated constant of 89.7 and coefficients for each dimension assessed as having “some problem” (self care: −15.89; mobility: −10.30; usual activities: −9.52; depression: −7.87; pain/discomfort: −7.49) and for having “considerable problem” with pain/discomfort: −6.00; usual activities: −8.09; depression: −3.36 and on any of dimensions: −20.18. Interactions did not increase explanatory value of the analysis.

CONCLUSIONS: Based on this model, the most important determinant of health status value (utility) for the Swedish population is depression, followed by problems with mobility and self-care. Pain/discomfort is the least important, regardless of the magnitude of the problems were assessed.

PEN4
GENERIC AND DISEASE—SENSITIVE INSTRUMENTS SEEM TO MEASURE QUALITY OF LIFE IN A SIMILAR WAY: RESULTS OF THE EQ-5D AND QOL-AGHDA SURVEY IN THE SWEDISH POPULATION
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OBJECTIVES: To assess to what extent QoL results obtained through a generic instrument (EQ-5D) correlate with those captured by a disease-sensitive measure (Qol-Assessment of Growth Hormone Deficiency in Adults). METHODS: Data were collected through a mailing survey to a random sample (n = 2990) of the Swedish population. The questionnaire comprised EQ-5D and Qol-AGHDA. Qol-AGHDA is a 25-item questionnaire that elicits yes/no responses to personal statements describing problems that characterize aspects of adult growth hormone deficiency (AGHD). A high Qol-AGHDA score denotes poor HrQoL. EQ-5D is a well-known and widely recognized generic instrument. (EuroQol Group, 1990). The response rate was 65% and complete data on EQ-5D and Qol-AGHDA were obtained from 1665 (48.2% males; mean age 49.5, range 18–85 years) respondents. RESULTS: For EQ-5D dimensions: 11% respondents reported problems with mobility, 2% with self care, 9% usual activities, 46% pain/discomfort and 30% anxiety/depression. All results were weighted to represent the Swedish population profile with respect to age and gender. The mean EQ-5D VAS score was 80 (SD 17.3) and the mean Qol-AGHDA score was 3.9 (SD 4.8). There was a significant correlation between Qol-AGHDA scores and EQ-5D VAS (r = −0.56, p < 0.001). CONCLUSIONS: These results show that there is strong correlation between results generated by a disease-sensitive and a generic measure, and thus suggest that using generic instruments for QoL assessments in specific conditions yield reliable results that could be employed for pharmacoeconomic evaluations.

ESTIMATING THE QUALITY OF LIFE DEFICIT IN ADULT GROWTH HORMONE DEFICIENCY USING AN EQ-5D CALIBRATED INDEX
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OBJECTIVES: Measuring the cost-effectiveness of interventions for adult growth hormone deficiency (AGHD) requires estimates of the benefits. For the purposes of cost-utility analysis those benefits should be expressed as QALYs. Where primary outcomes data are collected using condition-sensitive measures of health-related quality of life (HrQoL) then recalibration is necessary. This paper reports the use of EQ-5D as a mechanism for converting such data into a useable QALY metric. METHODS: Qol-AGHDA is a 25-item questionnaire designed for use in AGHD. Yes/no responses are used to compute a summary index with a high score denoting poor HrQoL. A total of 1000 individuals randomly selected from the UK Population Preference Panel were sent a copy of Qol-AGHDA together with EQ-5D, a widely used generic measure of HrQoL calibrated in terms of TTO preference weights. Corresponding Qol-AGHDA data on patients (n = 836) was made available from UK KIMS (Pfizer International Metabolic Database). RESULTS: Completed survey forms were received from 882 individuals (57% female, median age 55). There was a high degree of correlation between EQ-5D and Qol-AGHDA summary score (r = −0.529, p < 0.001). Age/gender standardised mean EQ-5D index scores were computed for different categories of Qol-AGHDA score in the general population survey. These were used as a lookup table to provide estimates of EQ-5D for each patient in the KIMS dataset according to their age/gender and Qol-AGHDA score. Within-year QALY losses between the EQ-5D index for KIMS patients and corresponding EQ-5D for the general population. Using age-specific prevalence data together with the relevant population life expectancy tables, it was also possible to estimate potential lifetime QALY losses for GHD. CONCLUSIONS: AGHD patients record lower levels of HrQoL than the general population. This difference equates to a 0.15 QALY “loss” per annum and a lifetime loss across all GHD patients of some 40,000 QALYs.