Abstracts

therapy. Persistence (remaining on therapy at 12 months after therapy initiation), mean medication possession ratio (MPR) over 12 months, and adherence (adherent to statin defined as MPR ≥ 0.8) were assessed. RESULTS: Among the 281,564 patients selected, 159,833 (56.8%) started on atorvastatin, 66,526 (23.6%) on simvastatin, 27,187 (9.7%) on pravastatin, 20,921 (7.4%) on fluvastatin, and 7,097 (2.5%) on lovastatin. The mean age was 61.3±13.2 years and 51% were male. The persistence at 12 months, mean MPR over 12 months, and adherence rate for all statins was 52.5%, 68.7%, 52.6%, respectively. The persistence rate at 12 months for patients initiated on atorvastatin, simvastatin, fluvastatin, pravastatin, and lovastatin was 54.1%, 53.7%, 49.7%, 44.8%, 41.0%, respectively (p < 0.0001 for all comparisons except for atorvastatin vs. simvastatin). The mean MPR for patients initiated on atorvastatin, simvastatin, fluvastatin, pravastatin, and lovastatin was 70.1%, 68.3%, 65.2%, 65.1%, and 62.2%, respectively (p < 0.0001 for all comparisons except for fluvastatin vs. pravastatin). Adherence for patients initiated atorvastatin, simvastatin, pravastatin, fluvastatin, and lovastatin was 54.1%, 52.6%, 48.4%, 47.7%, and 47.2%, respectively (p < 0.0001 for all comparisons except for pravastatin vs. fluvastatin, pravastatin vs. lovastatin, and fluvastatin vs. lovastatin). CONCLUSIONS: In general, patients initiated on atorvastatin are most favorable in terms of persistence, medication possession ratio, and adherence rates, followed by simvastatin, fluvastatin, pravastatin, and lovastatin patients. While there are statistically significant differences between the agents, additional studies are needed to determine if this translates to clinical differences.

EVALUATION OF THE ASSOCIATION BETWEEN HEALTH-RELATED UTILITY AND OBESITY IN HOSPITAL TREATED SUBJECTS

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OBJECTIVES: The preferred generic measure of health benefit in economic models is health-related utility. Utility provides a single measure of health-preference and has interval properties. The preferred generic measure of health benefit (EQ5D), risk factors (including height and weight) and demographic data on a large number of individuals. The data used here (n = 18,223) were from hospital inpatients and outpatients. Univariate analysis was conducted for specific subgroups and risk factors, as well as multivariate modelling. RESULTS: The general pattern was non-linear (rotated J-shaped curve). Naturally, there was wide variability but definite underlying structure to the relationship. People had highest utility when BM I = 20kg·m-2. Below this, utility decreases rapidly. There was a quadratic decrease in utility from BMI = 25kg·m-2 to BMI = 35kg·m-2 at a rate of 0.0133 utility units per unit BMI between BMI = 29kg·m-2 to 30kg·m-2, increasing to 0.0325 between BMI = 34kg·m-2 and 35kg·m-2. This rate of deterioration was consistent for a range of sub-group analyses: age, sex, employment status and by broad disease categories, the general association remaining the same, only the intercept varying. CONCLUSIONS: Health-related utility is a function of obesity. These data characterise this relationship for the first time, and in a large group of subjects. The pattern of this association was consistent in all subgroups investigated, and suggests that much health benefit can be achieved by reducing obesity in the general population.

BMI, SELF-REPORTED COMORBIDITIES, AGE, AND GENDER DO NOT EXPLAIN COUNTRY-SPECIFIC DIFFERENCES IN OBESITY-RELATED QUALITY OF LIFE

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OBJECTIVE: QOL is an important outcome in the evaluation of weight loss interventions (e.g., drug therapy). The objective of this study was to determine whether there are country-specific differences in the perception of the impact of weight on quality of life (QOL) or comfort with food. METHODS: The Impact of Weight on Quality of Life Scale (IWQOL) was administered to a sample of 2144 obese individuals (Mean body mass index (BMI) =31.3, 63% > 1 self-reported comorbidity, mean age = 41 years, 58% female) in Germany (n = 542), Italy (n = 503), United Kingdom (UK) (n = 539), and United States (n = 560). The IWQOL consists of 74 items forming 8 subscales: Health, Social/Interpersonal, Sexual Life, Work, Self-Esteem, Mobility, Activities of Daily Living, and Comfort with Food. For each country, Pearson correlations were calculated between demographic and IWQOL scores. To control for demographic differences in country-specific samples, differences in IWQOL scores were tested using analysis of covariance controlling for BMI, total number of self-reported comorbidities, gender, and age. RESULTS: Correlations between demographics and IWQOL subscales across countries followed a similar pattern, but the correlation coefficients calculated for Germany between most IWQOL subscale scores and BMI or total comorbidities were significantly (p < 0.05) higher. Significant (p < 0.05) country differences were found for all IWQOL scales. Pairwise comparisons showed, for example, that, compared to the other three countries, the UK sample had significantly better Esteem and Mobility scores; Germany had significantly worse Social/Interpersonal scores; and Italy had significantly less comfort with food (all p < 0.05). CONCLUSIONS: Differences in the perceived impact of weight on QOL found in this study suggest the need for more research investigating cultural differences in the perception of obesity. Such differences may impact the interpretation of patient-reported outcome scores obtained in international evaluations of obesity interventions.

CARDIOVASCULAR DISEASE (including Obesity)

CARDIOVASCULAR DISEASE (including Obesity)—Health Policy Studies

MECHANICAL AND ALLERGIC ADVERSE EVENTS RELATED TO CENTRAL VASCULAR CATHETERS: EPIDEMIOLOGY IN THE MEDICARE HOSPITALIZED SURGICAL POPULATION, 2002

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OBJECTIVE: To characterize MAAE related to CVC replacement or placement among hospitalized Medicare surgical patients. METHODS: The Centers for Medicare and Medicaid Services sponsored identification and abstraction of the records for 40,620 hospitalizations of Medicare beneficiaries. Different simple random sampling fractions were used for each of the 50 states. For patients undergoing surgery in the operating room, details about each CVC (re-)placed during the hospitalization, and related non-infectious adverse events, were noted. RESULTS: Among 40,620 sample hospitalizations, 7044 CVCs were (re-)placed during 4889 surgical hospitalizations (mean length of stay 10.4 d [95% CI: 9.7–11.2]); among these, there were 139 MAAEs among 130 hospitalizations (mean length of stay 20.1 d [95% CI: 15.8–24.5]). The proportion of MAAEs per catheter (re-)placement was 2.3% (95% CI: 1.9%–2.6%) and the proportion of stays where a CVC was (re-)placed that had a CVC-related MAAE was 2.7% (95% CI: 2.2%–3.2%). Among patients who had length of stay up to 12 days and a CVC (re-)placement, MAAE was associated with increased in-hospital mortality (OR = 2.88, 95% CI: 1.53–5.43). Among those with CVCs (re-)placed, MAAE occurrence was unrelated to age. The most common CVC (re-)placement sites were internal jugular (40%) and subclavian veins (25%). The most common specified CVC types were PICCs (19%) and pulmonary artery catheters (16%). The most common hospital locations for (re-)placement were operating rooms (35%) and critical care units (17%). Most (72%) of the stays with CVC (re-)placement had just 1; 20% had 2 CVC (re-)placements. The most common MAAEs were misplacement (22%), thrombosis or embolism (18%), coiling or kinking (10%), and pneumothorax (8%). CONCLUSIONS: Among Medicare surgical inpatients, the rate of mechanical or allergic adverse events per catheter was approximately 2%. Incomplete documentation was a barrier to studying specific types of CVCs in relation to MAAEs and their risk factors.

PCV46

EXPLORATION OF HIGHLY ELEVATED CREATININE KINASE RESULTS AND ASSOCIATED CHOLESTEROL THERAPY IN A LARGE COMMERCIAL HEALTH PLAN
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OBJECTIVE: The use of statins has been associated with risk for myotoxicity. Myopathy, defined as creatine kinase (CK) elevation greater than 10 times the upper limit of normal (ULN), occurs in 0.1–0.5% of statin users. This study describes elevated CK levels in an HMO population on cholesterol lowering therapy. METHODS: All subjects with a valid CK result during January 1 to December 31, 2001 were studied. Pharmacy claims data were linked to the laboratory results. A highly elevated result was defined as CK at least 10 ULN. METHODS: All subjects with a valid CK result during January 1 to December 31, 2001 were studied. Pharmacy claims data were linked to the laboratory results. A highly elevated result was defined as CK at least 10 ULN. RESULTS: A search of laboratory data identified 13,624 subjects with valid CK results. Most subjects had only one result (n = 10,301, 76%). Seventy-six subjects (0.6%) had a highly elevated CK result. Forty-one percent of all subjects (n = 5530) filled prescriptions for statins only, 400 (3%) filled prescriptions for non-statin cholesterol lowering therapy only, and 1473 (11%) filled prescriptions for both types of cholesterol lowering medications. Highly elevated CK results were found among 0.3% (n = 14) of statin only subjects, 0.5% (n = 2) of non-statin therapy only subjects and 0.6% (n = 9) of subjects with both medications. Of subjects with no cholesterol therapy, 0.8% (n = 53 of 6621) had a highly elevated CK result. CONCLUSIONS: We found a low rate of highly elevated CK results among those for whom results were available. The rate of highly elevated CK was higher among those with non-statin cholesterol therapy or combination therapy compared to those with statin therapy alone. Despite the low occurrence of highly elevated results, we found that a large percentage of those tested were statin users. The low incidence of highly elevated CK among monitored statin users raises questions regarding the most effective strategy for identifying patients at risk for myotoxicity.