This is mainly due to the lower average number of treatment cycles needed with zoledronic acid 5mg, also considering the improved compliance with the IV infusion. The probabilistic sensitivity analyses performed show that the results are robust.

CONCLUSION: Based on our evaluation, in PDB, zoledronic acid 5mg is both more effective and less costly than the other bisphosphonates currently reimbursed in Belgium.

A COST EFFECTIVENESS MODEL FOR THE EVALUATION OF TOTAL HIP ARTHROPLASTY (THA) AND TOTAL KNEE ARTHROPLASTY (TKA) IN SWEDEN

Borgström P1, Lidgren L2, Robertsson O3, Herberts P4, Garellick G4

1Stockholm Health Economics, Stockholm, Sweden; 2Malmö General Hospital, Lund, Sweden; 3Sahlgrenska University Hospital, Göteborg, Sweden; 4Sahlgrenska University Hospital, Göteborg, Sweden

OBJECTIVES: The objective of this study was to develop a flexible health economic simulation Markov cohort model that can be used to assess the cost-effectiveness of different treatment strategies within the hip and knee arthroplasty area in Sweden. METHODS: The Markov cohort model included the following health states: No event, Revision, re-revision and death. The model have stochastic capabilities and the uncertainty in the risk of revision, mortality after revision, costs and quality of life were accounted for by bootstrapping technique. For exemplification the model was used to estimate the cost-effectiveness of a cemented implants with antibiotics compared to cemented implants without antibiotics in a Swedish setting for both patients with THA and TKA. Data used to populate the model was mainly derived from the Swedish National Hip Arthroplasty Register and the Swedish Knee Arthroplasty Register and the Swedish National Inpatient Register. The analysis had a societal perspective (i.e. the aim is to include all relevant costs irrespective of who incur them). In the base case simulations patient were followed for 10 years after the arthroplasty. RESULTS: An antibiotic cemented implant compared to an implant without antibiotics was found cost saving both for patients having a THA and TKA was found to be cost saving when patients were followed for 10 years after the procedure in the model. When the costs in added life were included the cost per QALY gained was SEK 187,888 for THA and SEK 186,217 for TKA. CONCLUSIONS: The developed cost-effectiveness model indicated that antibiotic cemented implants compared to implants with no antibiotics was cost-effective for the use in THA and TKA. The model is highly adaptable for the evaluation of other treatments strategies such as prostheses but it can also be used to evaluate waiting times or the procedure as a whole.

PREVALENCE TRENDS IN OVERWEIGHT AND OBESITY AND WEIGHT CONTROL PRACTICES AMONG ADULTS IN THE US

Barone JA1, Shin HC2, Choi IS3, Vo L4

1Rutgers University, Piscataway, NJ, USA

OBJECTIVES: To examine trends of prevalence and treatment patterns of diabetes mellitus (DM) in adults and to determine the relationship between DM and obesity. METHODS: This study used Third National Health and Nutrition Examination Survey (NHANES II for 1976–1980, NHANES III for 1988–1994, and NHANES IV 1999–2002) were used. Based on body mass index (BMI), adults were classified as overweight (BMI 25 to <30) or obese (BMI ≥ 30). Duration of physical activity was calculated using leisure-time physical activity to determine compliance of CDC recommendations. RESULTS: The prevalence of overweight and obesity changed from 31.4% to 34.7% and from 14.5% to 30.2%, respectively. Obesity significantly increased 7.8% for II–III (p < 0.001) and 7.9% for III–IV (p < 0.001). The prevalence of overweight individuals increased most rapidly in adults 20–39 years old. Obesity increased most rapidly in patients 40–64 years old for II–III and 20–39 years old for III–IV. Hypertension was more prevalent in obesity (75.2% (II), 50.7% (III), 48.0% (IV)) than overweight (54.5% (II), 33.7% (III), 34.1% (IV)), yet for both groups decreased over time. During IV, overweight adults spent an average of 240 minutes per week for physical activity, and obese adults spent 170 minutes. Only 43.2% of overweight and 37.5% of obese took medications or followed physical activity guidelines to control weight. CONCLUSIONS: Two-thirds of U.S. adults were considered to be overweight or obese. The prevalence of overweight and obesity continuously increased during the past 30 years and increased more rapidly in recent years. It is recommended that aggressive interventions be initiated to increase patient awareness so that more patients get treated and follow physical activity guidelines to lose or control weight.