OBJECTIVES: The primary objective of this study is to estimate the number of hip/knee replacements performed in the nation as well as to produce synthetically derived estimates for Ohio. These estimates were then used for the estimation of the economic burden associated with these arthritis related surgeries. METHODS: The 2000 National Hospital Discharge Survey (NHDS) was utilized to estimate the number of hip/knee replacements performed in the nation. The ICD-9-CM procedure codes used to identify patients are ICD-9-CM 81.51 (total hip replacement) and 81.54 (Total/partial knee replacement). The NHDS recorded up to four ICD-9-CM procedures for each discharge. Since the main purpose of this study was to estimate the burden of arthritis-related surgeries, all four procedures recorded for each patient were considered for the identification of arthritis-related surgery. Then, the total number of hip/knee replacements in Ohio was estimated by applying age and sex distributions based on the U.S. census 2000. Since the NHDS does not include cost information on hospital discharges, diagnosis related group (DRG) reimbursement was used to approximate the total hospital charges. RESULTS: In the United States, approximately 9.6 billion dollars were used for 439,833 hip and knee replacement surgeries in the year 2000. In Ohio, approximately 407 million dollars were spent for 18,731 hip and knee replacement surgeries. CONCLUSIONS: The estimated cost for joint replacements alone was nearly $10 billion in the United States during the year 2000. The total cost of joint replacements will be much higher if we include pre and post-operation care.

THE IMPLICATIONS OF RHEUMATOID ARTHRITIS IN THE UK SECONDARY CARE HEALTH CARE SYSTEM

Ryan J1, Piercy J2, Pang F3, Sengupta N2, Hazleman B4
1Mapi Values, Macclesfield, United Kingdom; 2Abbott UK, Maidenhead, United Kingdom; 3Abbott Laboratories, Abbott Park, IL, USA; 4University of Cambridge School of Clinical Medicine, Cambridge, United Kingdom

OBJECTIVES: Rheumatoid arthritis (RA) is an important cause of admission to UK hospital wards, although few estimates of the cost implications of RA in the hospital sector exist in the literature. This study presents a method of estimating the hospital burden of RA in England. METHODS: The CHKS hospital dataset contains aggregated, anonymised information on diagnosis, hospital experience, and patient demographics for over 80 million episodes in the UK. The CHKS sample, which covers approximately 55% of UK hospital admissions, was used to describe and assess the impact of RA-related episodes in England. Patients with RA (ICD-10 codes M05, M06) as a primary or secondary diagnosis were analysed for comorbidities, procedures (identified using OPCS-4 codes), length of stay, and for repeat admissions during the year. RESULTS: We identified 10,425 unique patients admitted with primary RA in 2001. These patients had a total of 17,395 separate episodes, 42% of which were day cases. Mean inpatient length of stay was 6.9 days, resulting in 70,305 occupied bed days. At least 1 invasive procedure was undertaken in 74% of episodes. While these were mainly injections and infusions, there were 1630 joint replacements. From a resource use perspective, the 10% of procedures involving joint replacement accounted for 22% of total occupied bed days. Forty percent patients with a primary RA episode also had primary RA episodes in the previous 4 years. A further 15,640 unique patients with secondary RA were also identified, having a total of 28,979 episodes. CONCLUSIONS: Each year, there are over 25,000 unique patients with a RA related episode in England. This represents a substantial resource burden in the National Health Service (NHS). An effective and well-tolerated agent, such as an anti-TNF therapeutic, would help reduce the burden on an already overstretched healthcare sector.

PAR10

A COST ANALYSIS OF CELECOXIB VERSUS DICLOFENAC PLUS OMEPRAZOLE FOR THE TREATMENT OF ARTHRITIS IN A GROUP OF HIGH-RISK CHINESE PATIENTS

You YH1, Ho J, Lau W, Lee VW, Chan FK, Lee KK
The Chinese University of Hong Kong, Hong Kong, China

OBJECTIVES: A local clinical trial showed that celecoxib therapy was comparable in efficacy to diclofenac plus omeprazole in preventing recurrent gastrointestinal bleeding in high-risk patients. The objective of the present study is to evaluate the economic impact of celecoxib therapy versus diclofenac plus omeprazole for the treatment of arthritic patients with high risks. METHODS: A decision tree was designed to analyze the economic and clinical outcomes of a randomized controlled clinical trial. Two hundred and eighty-seven patients with arthritis and active ulcer bleeding were recruited. After ulcer healing had been confirmed, the patients were randomized to receive either celecoxib 200mg twice daily or diclofenac twice daily plus 20mg of omeprazole daily for 6 months. The clinical outcome was incidence of ulcer bleeding. The healthcare resource consumption associated with study patients was retrieved from the trial case reports. The direct medical costs were estimated based upon symptom-driven healthcare resources utilization. The study was performed from the perspective of a public health organization in Hong Kong. RESULTS: Seven out of 144 patients (4.9%) in the celecoxib group and 9 out of 143 patients (6.3%) in the diclofenac group experienced ulcer bleeding. The mean cost for management of ulcer bleeding was HKD19,434 (95% CI: HKD10,950–27,918) (1US = 7.8HKD). The mean total cost of routine follow-up and differential diagnosis during study period for patients in the celecoxib