

compared to calcitonin and alendronate. Furthermore, hazard ratios showed that patients taking ERT, raloxifene, or alendronate were approximately 83% less likely to experience fracture at any point in time compared to calcitonin.

PAM3**THE COST OF OSTEOPOROTIC FRACTURES IN THE UNITED KINGDOM**

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BACKGROUND: The UK has more than 19 million people aged over 50, including about 9.4 million aged over 65. Demographic changes will lead to increases in the over-50 population of 10% and 25% by 2010 and 2020, respectively. There are already 3 million UK residents with osteoporosis, but the prevalence of osteoporosis increases with age, and the public health impact of osteoporosis will increase substantially over the next 20 years. **OBJECTIVE:** To predict fracture numbers and corresponding costs for men and women aged 50–99 years in the UK for the years 2000 to 2020. **METHODS:** A Markov model was designed to simulate the natural history of osteoporosis within the UK population. Inputs to the model included age/sex specific fracture incidence rates, published unit costs for different fracture types (hip, vertebral, forearm/wrist, other), age/sex specific mortality rates, and age/sex specific population totals. Total fracture numbers were adjusted using published site-specific attribution figures to identify the number that were a consequence of osteoporosis. Iteration techniques were employed across ages 50–99 in men and women, to generate the distribution of prevalence-based estimates of fractures and costs for the base year 2000. Osteoporosis costs and fracture numbers were then projected into future years by applying growth rates in age/sex specific population totals to these year 2000 estimates. **RESULTS:** In 2000 there were 190,000 osteoporosis-related fractures at a cost of £1.8 billion. Men accounted for 32,000 fractures and £330 million. By 2020, annual osteoporotic fracture numbers increased by over 21% to 230,000, with costs growing by 20% to over £2.1 billion. Cumulative totals for 2000–2010 were 2.2 million fractures and £20.3 billion. **CONCLUSIONS:** Osteoporotic fractures will have substantial and increasing impacts on UK health services unless highly effective preventative interventions achieve widespread use.

PAM4**USE OF COX 2 NSAIDS IN SUBJECTS WITHOUT RISK OF GASTROINTESTINAL SIDE EFFECTS**

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OBJECTIVE: While Cox 2 inhibitors have a theoretical advantage over other nonsteroidal anti-inflammatory drugs (NSAIDs) by reducing gastrointestinal (GI) side effects, not all individuals are at increased risk of GI complications and therefore may benefit equally from non-Cox 2 specific NSAIDs. This study determined the use of Cox 2 inhibitors by subjects with no identifiable GI risk. The cost of this “inappropriate use” was estimated. **METHODS:** This was a longitudinal claims data analysis using 1999 medical, pharmacy and enrollment data from a large national health plan. Subjects were identified as either Cox 2 users (n = 23,190) or other NSAID users (n = 192,079) from pharmacy claims, and total NSAID costs were calculated for a six-month period. **RESULTS:** Cox 2 users were more likely to have a GI risk factor, (prior GI events, age over 60 years, chronic NSAID use of two or more prescriptions in the six months prior to the first Cox 2 claim, and prior corticosteroid use) compared to other NSAID users. Because individuals with arthritis may require on-going NSAID use, a diagnosis of arthritis (OA or RA) was also considered a risk factor for GI complications. Having an arthritis diagnosis was more likely among Cox 2 users compared to other NSAID users (44.1% and 13.0% respectively). Twenty-six percent of Cox 2 users had neither a discernable GI risk nor an arthritis diagnosis. An unadjusted cost comparison between Cox 2 subjects with no GI risk and no arthritis and similar other NSAID subjects found a significant mean difference of \$131 per person in NSAID costs for six months. **CONCLUSIONS:** Despite health plan policies to manage the use of Cox 2 inhibitors, a quarter of Cox 2 users appeared to be inappropriate. The total health system cost of this potentially inappropriate use was \$775,000 for six months.

PAM5**INVESTIGATING THE CONSTRUCT VALIDITY OF A DISEASE SPECIFIC AND A GENERAL QUALITY OF LIFE INSTRUMENTS OF PATIENTS WITH RHEUMATOID ARTHRITIS**

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OBJECTIVES: Quality of life is a key parameter in describing the health status patients of rheumatoid arthritis. Construct validity of a generic (EQ-5D) and a disease specific (RAQoL) quality of life instrument was tested with the intention of further use in clinical and health economic trials and burden of disease studies in Hungary. **METHODS:** RAQoL and EQ-5D have been recently adapted into Hungarian. Authors analysed the demographic and QoL data from a cross-sectional postal survey of patient with rheumatoid arthritis. The convergent validity of EQ-5D, RAQoL scores has been compared to functional measurement scores from the Health Assessment Questioner (HAQ). Pearson correlation coef-