12 months. The chi-square test for trend revealed a significant trend for a decreasing rate of treatment with increasing age (p < 0.0001). During the follow-up period, 34% of women had subsequent fractures. Furthermore, there was a significant risk of subsequent fractures with increasing age (p < 0.0001).

CONCLUSION: Evidence from the published literature show that the risk of fracture increases with age, particularly among those with prior fracture events. In this study, only one-fourth of the study women received osteoporotic therapy after an incident bone fracture. Given the magnitude of the financial, physical, and psychosocial consequences of osteoporotic fractures, more attention should be given to the treatment of osteoporosis.

ARTHRITIS & OSTEOARTHRITIS—Economic Outcomes Presentations

MODELLLED COST-UTILITY ANALYSIS OF ROFECOXIB AND TRADITIONAL NON-STEROIDAL THERAPIES FOR TREATMENT OF CHRONIC OSTEOARTHRITIS
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OBJECTIVES: To provide a comprehensive assessment of the cost-effectiveness of rofecoxib relative to diclofenac therapy, the main NSAID used in Australia. The evaluation employs cost-utility and cost-effectiveness analysis from a health system perspective with the endpoints being the incremental cost per quality adjusted life year (QALY) gained and incremental cost per life year saved (LYS).

METHODS: A Markov process was used to advance patients through seven health states in daily cycles over a period of one year. The modelled population is based on typical osteoarthritis patients in Australia (approximately 71% women, mean age: 63 years). Clinical data on the incidence of gastrointestinal adverse events (Perforations/ ulcers/ bleeds or other gastrointestinal adverse events) were derived from clinical trials, utility values were obtained using the EQ-5D and a survey of health professionals. Resource use and valuation included drug costs and the costs associated with the treatment of gastrointestinal adverse events. Univariate and multivariate sensitivity analysis was undertaken.

RESULTS: In a mixed population of patients with osteoarthritis, the incremental cost per QALY associated with rofecoxib compared to diclofenac was €18,691. Simply focusing on mortality, the cost per death avoided amounts to €67,092. Assuming that 13.2 discounted life years would have been saved per death avoided (life expectancy of typical osteoarthritis patient). The associated cost per LYS could be as low as €5,097. Sensitivity analyses indicated that rofecoxib offers favourable cost-effectiveness according to Australian National Health and Medical Research Council (NHMRC) guidelines. The maximum incremental cost per QALY generated when key assumptions were altered in sensitivity analysis was always less than $70,000.

CONCLUSIONS: The incremental QALY and LYS outcomes derived from the modelled evaluation are well within the bounds considered cost effective by Australian guidelines. Improved quality of life make rofecoxib a cost effective alternative for patients with osteoarthritis.

COST ANALYSIS OF A 12-WEEK CYCLE OF THERAPY WITH CELECOXIB VS. CONVENTIONAL NSAIDS IN PATIENTS WITH OSTEOARTHRITIS
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Osteoarthritis (OA) has a high prevalence rate in Italy. Traditional NSAIDs, the commonest symptomatic OA treatment, cause gastrointestinal (GI) side effects, varying from milder symptoms of GI intolerance to life-threatening GI perforation obstruction and bleeding (POB). Celecoxib has demonstrated a much better GI safety profile than NSAIDs, but it is more expensive.

OBJECTIVES: To estimate the cost from the Italian national health service (INHS) perspective of a 12-week cycle of therapy in OA patients with celecoxib or NSAIDs.

METHODS: A decision-tree was used to estimate over 12 weeks the costs of two alternative therapies: celecoxib 200 mg/day (€1.38/day) and NSAIDs (€0.41/day) whose cost was calculated as the mean of the first ten prescribed NSAIDs in Italy in year 2000, at the mean dosage. The time frame was chosen as the most representative of the Italian physicians prescription habits. Probabilities of side effects, derived from clinical trials, were: Celecoxib, GI intolerance 0.078, Anemia 0.0015, Ulcer 0.0085, POB 0.001; NSAIDs, GI intolerance 0.12, Anemia 0.0055, Ulcer 0.0315, POB 0.008. Probabilities of hospitalization, derived from Italian literature, were: GI intolerance, 0; Anemia, 0.2, Ulcer 0.3, POB, 1. Cost to treat the events were estimated using the INHS tariffs and DRGs and were: GI intolerance, €138; Anemia without hospitalization, €432; anemia with hospitalization, €3,908; Ulcer without hospitalization, €491, Ulcer with hospitalization, €2,530; POB, €10,809.34.

RESULTS: The costs of the alternative therapies were €148.56 for celecoxib 200 mg/day and €178.41 for NSAIDs.

CONCLUSIONS: Celecoxib is more expensive than the commonest prescribed NSAIDs in Italy; nevertheless, NSAIDs GI side effect have high prevalence and resource consumption, included a high rate of hospitalization, and a related considerable cost load for INHS. Therefore, the correct prescription of celecoxib may result in global cost savings for the payer.