between February and May 2005 in a cross-sectional, observational study. RESULTS: Fourteen global and 57 detailed concepts were included in the conceptual model. The test questionnaire contained 64 items. After cognitive debriefing, 7 items were excluded. The questionnaire was well-accepted by the patients in the pilot study. Clinicians were delighted to have a helpful patient-management tool. The pilot questionnaire contained 52 items in 10 sections (symptoms, allergy in daily life, motivations for SIT, advantages, constraints, intake, outcomes, satisfaction, intention, information). The majority of the 211 clinicians reported high patient acceptability and major interest in using the questionnaire routinely. The items presenting missing data, not clearly related to a specific domain, or redundant were not selected for final format and score calculation. The scores were assessed for internal consistency reliability, construct validity and predictive validity. CONCLUSION: This instrument covers the major domains impacting the patient’s persistence in SIT. It is a promising patient-management tool for use in clinical practice.

**ARTHRITIS**

**PAR1**

**COSTS AND EFFECTS OF CLECOXIB IN THE TREATMENT OF PATIENTS WITH RHEUMATOID ARTHRITIS AND OSTEOARTHRITIS IN THE NETHERLANDS**

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OBJECTIVE: To assess the balance between costs and upper GI side effects of treatment with celecoxib (a COX-2 specific inhibitor) compared with nonspecific NSAIDs alone, nonspecific NSAIDs plus misoprostol, nonspecific NSAIDs plus histamine-2 receptor antagonists (H2RA), nonspecific NSAIDs plus proton pump inhibitors (PPI), and Arthrotec, in The Netherlands.

METHODS: A model was used to convene data from various sources. The probabilities of GI side effects for celecoxib and nonspecific NSAIDs alone were derived from trial data, while all other probabilities were derived from published sources. Resource use was derived from databases and an expert panel. Calculations were based on 6 months of treatment, and were from a societal perspective but were limited to direct medical costs (2004 Euros; €). Distinction was made between risk groups based on risk factors such as older age, use of corticosteroids and history of GI events.

RESULTS: Treatment with celecoxib was associated with the lowest number of GI side effects and related deaths. Assuming an average patient, the total costs per 6 months of therapy were: celecoxib €212, nonspecific NSAIDs alone €151, NSAIDs plus misoprostol €227, NSAIDs plus H2RAs €268, NSAIDs plus PPIs €269, and Arthrotec €171. Incremental costs per life-year saved for celecoxib compared with nonspecific NSAIDs alone were €12,417 for all patients, and €760 for high-risk patients. Comparing celecoxib and Arthrotec, the incremental costs per life-year saved were €32,757 for all patients and €7759 for those at high-risk of GI events.

CONCLUSION: Celecoxib is a more effective and less costly treatment than nonspecific NSAIDs plus misoprostol, NSAIDs plus H2RAs, and NSAIDs plus PPIs. It is cost-effective compared with nonspecific NSAIDs alone for patients at medium- to high-risk of GI events, and also for high-risk patients. Compared with Arthrotec, celecoxib showed an improving cost-effectiveness profile with increasing GI risk.

**PAR2**

**METAL ON METAL (MOM) HIP RESURFACING (BIRMINGHAM HIP RESURFACING (BHR)) IN YOUNG PATIENTS WITH SEVERE HIP DAMAGE—A COST UTILITY ANALYSIS**

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OBJECTIVES: Total Hip Replacement (THR) is regarded as gold standard treatment for degenerative hip disease in elderly patients. Young, active patients, however, are a more challenging group for THR due to the high risk of revision and associated complications. In 2002, the National Institute for Health and Clinical Excellence (NICE) recommended MoM hip resurfacing as a treatment option for this patient group. An alternative treatment for these patients is watchful waiting (WW) whereby patients are maintained on drug-based regimens until they are old enough to warrant a THR. The aim of this study was to evaluate the cost-effectiveness of BHR vs. WW in 45–55 year old patients with severe hip damage. For completeness the cost-effectiveness of BHR vs. THR was assessed in the same patient group.

METHODS: A health economic model was constructed to assess the efficacy, cost and health-related quality of life associated with BHR, WW and THR treatments. Efficacy data for BHR were obtained from a large, prospective database (n = 4424), which provided up to 5 years follow-up for individual BHR patients. Resource use and utility data were obtained from published sources. The primary outcome from the model was the cost per quality-adjusted life-year (QALY). RESULTS: Preliminary results demonstrate that at year 5 BHR has an incremental cost/QALY (ICER) of £1,101 compared to WW and an ICER of £13,123 compared to THR. Over time the ICER decreases and BHR becomes dominant (i.e. it is more effective and costs less) compared to WW and THR by year 20 and 15, respectively. CONCLUSIONS: This study demonstrates that in patients aged 45–55 years with severe hip damage, BHR offers an extremely cost-effective alternative to WW with an equivalent improvement in quality of life to THR. Patients treated with BHR will benefit from significant health gains at an acceptable cost.

**PAR3**

**PRODUCTIVITY BENEFITS FROM CONTROLLED-RELEASE VS SHORT ACTING OPIOIDS FOR TREATMENT OF PERSISTENT MODERATE TO SEVERE OSTEOARTHRITIS (OA) PAIN OF THE HIP/KNEE**

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OBJECTIVES: OA is associated with significant disability, reduced productivity, decreased HRQoL, and increased health care costs. The objective was to evaluate the cost-effectiveness of controlled-release oxycodone (CRO) from a societal perspective incorporating time loss (paid and unpaid work for patients and friends/relatives).

METHODS: A 6-month, randomized, non-inferiority, active-controlled, crossover, parallel-group study in patients aged 45–55 years with severe hip/knee OA pain. A control group received a short-acting opioid. The primary outcome from the model was the cost per quality-adjusted life-year (QALY). The model incorporated time loss (paid and unpaid work for patients and family). Baseline utility was estimated from the EQ-5D and the HUI3. All costs were discounted at 3.5% per year. Results were presented in terms of cost/QALY.

RESULTS: The ICER of CRO vs. short-acting opioids was £1,900 per QALY gained. CRO provided a greater improvement in HRQoL and productivity compared with a short-acting opioid, and was at an acceptable cost.
Abstracts

over 4-months [mean productivity gain in favor of CRO: US$11 paid work; US$6.54 unpaid work]. Friends/relatives of patients on CRO also spent less time assisting patients [mean productivity gain over 4-months in favor of CRO: US$21 paid work; US$18.5 unpaid work]. Improved pain control was observed in patients treated with CRO compared to short-acting opioids as measured by a) proportion of patients with at least a 20% improvement in WOMAC pain score 62.2% vs. 45.9% (p = 0.0003), b) mean HUI3 utility pain domain score at 4 months (0.53 vs. 0.46), and c) a mean QALY gain of 0.0105 with CRO (p = 0.1673). Mean societal cost/patient over 4 months was US$6792 vs. US$6929 (p = 0.3345) for CRO and short-acting opioids, respectively. CRO was both more effective and less costly than the short-acting opioids. CONCLUSIONS: CRO offers advantages over short-acting opioids in terms of reduced time loss from paid and unpaid work. From the societal perspective, CRO was both more effective (QALYs, utilities gained and % patients improved) and less costly than short-acting opioids. These findings, including the impact of productivity loss and QALYs gained should be factored into decisions about treating OA pain.

PAR4

OSTEOPOROSIS: CHONDROITIN SULFATE LONG TERM UTILIZATION IS COST-SAVING

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OBJECTIVE: To demonstrate that the long term use of chondroitin sulfate (CS) for patients suffering osteoarthritis (OA) is cost-saving. METHOD: Two groups were compared, patients treated less than 6 consecutive months (short term) with CS and patients treated more than 6 consecutive months with CS during 2001–2002 on the IMS Disease Analyzer database. The mean cost per patient and per month was calculated using the total cost of treatment of the period divided by the number of patients and the mean duration of the period (12 months for the follow up, less or more than 6 months in the treatment period). All the analyses were performed within a French NHS perspective. RESULTS: We obtained two groups of respectively 56,525 and 24,732 patients treated with CS for their OA in the short and long term groups. In the follow up period, 12 months for the follow up period, patients with short term treatment cost patients with short term treatment cost 36% more in coxibs and 42% more in NSAIDs and 190% more in analgesics (p < 0.05). CONCLUSION: The use of CS in OA is more efficient with long term treatment, demonstrating an important cost-saving versus short term treatment. Our economical evaluation confirmed the previous clinical demonstration of the relevance of long term use of CS in OA.

PAR5

OSTEOPOROSIS: CHONDROITIN SULFATE LONG TERM UTILIZATION REDUCES CONSUMPTION OF COXIBS, NSAIDS & ANALGESICS

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OBJECTIVE: To demonstrate that the long term use of chondroitin sulfate (CS) for patients suffering osteoarthritis (OA) induced less co-prescriptions. METHOD: Two groups were compared, patients treated less than 6 consecutive months (short term) with CS and patients treated more than 6 consecutive months (long term) with CS during 2001–2002 on the IMS Disease Analyzer database. The objective was to compare the co-prescriptions related to OA for both groups of patient in the 12 months following the study period. In our analysis, medical consultations for OA and OA prescriptions including CS, NSAIDs, analgesics, coxibs and gastro-protective agents were taken into account. RESULTS: We obtained two groups of respectively 56,525 and 24,732 patients treated with CS for their OA in the short and long term groups. In the follow up period, patients with short term and long term treatment had respectively in term of co-prescriptions 37% vs. 38% of NSAIDs, 75% vs. 71% of analgesics and 21% in both groups of coxibs. But the mean length of treatment’s days by co-prescriptions were respectively of 40 vs. 37 for NSAIDs, 82 vs. 68 for analgesics and 79 vs. 59 for coxibs (p < 0.01). CONCLUSION: The results of this survey allowed us to conclude that in addition to the fact that the use of CS in OA is more efficient with long term treatment, it was also safer compared to short term treatment. A long term treatment reduces the length of treatment of each co-prescriptions. The saving of 20 days of coxibs treatments, 3 days of NSAIDs and 14 days of analgesics demonstrated that the long term use of CS confirmed that in real life the efficiency and the safety profile made it a safe approach taking into consideration the high risk profile (Gastro-intestinal, cardiovascular, etc.) of the other OA symptomatic treatments.

PAR6

GASTROINTESTINAL (GI) EVENTS, MEDICATION USE AND HEALTH CARE COSTS FOR NEW USERS OF CYCLOOXYGENASE (COX)-2 INHIBITORS AND NONSELECTION NONSTEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

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OBJECTIVE: To evaluate upper GI (UGI) events, use of GI medications, and health care costs among arthritis patients in a managed care setting. METHODS: Commercial claims data for three million health maintenance (HMO) and preferred provider organization (PPO) members in Southeast U.S. were used to identify new users of COX-2s and NSAIDs in 2002. Patients had ≥1 arthritis-related claim followed by an index claim for COX-2 (rofecoxib, valdecoxib or celecoxib) or NSAID (ibuprofen, naproxen, diclofenac, and nabumetone) and were continuously enrolled for ≥ one year pre- and post-index date. Patients dispensed either a COX-2 or NSAID during one year pre-index and patients with claims for both COX-2s and NSAIDs were excluded. Multiple logistic regression was used to model UGI events (ulcers and bleeds) and GI medication use (proton pump inhibitors and H2-antagonists), and a log transform model was used for total health care costs (medical and prescription) at 1 year controlling for age, gender, health status, medication persistence, and baseline utilization. RESULTS: In total, 3449 arthritis patients were included: 47% COX-2 (26% rofecoxib, 15% celecoxib, 7% valdecoxib) and 53% NSAID. Patients in the COX-2 group were significantly older, taking more medications and more persistent, more likely to be female or belong to a PPO, and had more comorbidities, GI events, and higher costs