PSORIATIC ARTHRITIS (PsA) ANTI-TUMOUR NECROSIS FACTOR (TNF) DRUGS FOR THE TREATMENT OF PMS6 ADA

RESULTS: MTX-naive patients on ADA, IFX, MTX, and MTX alone withdrew after 3.31, 2.46, and 2.71 years, respectively. All 1.829 patients had a lesion-free interval of 1.40, 1.05, and 0.88 QALYs, respectively. Thus, MTX-naive patients on ADA had an incremental QALYs of 0.35 (P < 0.05) versus IFX-MTX and 0.32 (P < 0.05) versus MTX alone. DMARD-failure patients on ADA, MTX, IFX, and MTX alone withdrew after 3.33, 2.11, and 1.44 years and accrued 0.57, 0.54, and 0.81 QALYs, respectively. Thus, DMARD-failure patients on ADA had an incremental QALYs of 0.51 (P < 0.05) versus IFX-MTX and 0.81 (P < 0.05) versus MTX alone. CONCLUSIONS: Understanding the benefit-risk tradeoff is important for clinicians when prescribing anti-TNFs. Both MTX-naive and DMARD-failure patients may experience greater NHS when treated with ADA versus MTX than when treated with IFX or MTX alone.

PMS6 ANTI-TUMOUR NECROSIS FACTOR (TNF) DRUGS FOR THE TREATMENT OF PSORIATIC ARTHRITIS (PsA) Farrell1, Mills2, Sheppard3, Thoerner4 1MSD, Hoddesdon, Hertfordshire, UK; 2University of Ottawa, Ottawa, ON, Canada; 3MSD Ltd., Hoddesdon, UK; 4McMaster University, Hamilton, ON, Canada

The GO-KEVIT clinical trial has shown golimumab to be effective in the treatment of active and progressive PsA. A recently published article by Yang et al. that covered a critical appraisal of the Yang et al. manuscript and network meta-analysis. The previous indirect comparison was analysed, identified errors corrected, and assumptions altered where necessary. A network meta-analysis was then performed based on these updated parameters. Indirect comparisons were performed for the available anti-TNFs (adalimumab, etanercept, golimumab, and infliximab) measuring relative risks for the PsA response criteria (PsA20), mean differences for improvements from baseline for the Health Assessment Questionnaire (HAQ) by PsA20 responders and non-responders, and mean difference for the improvements from baseline for the psoriasis area and severity index (PASI). When the reporting of data on intervention group response rates and improvements were incomplete, straightforward conversions were used, based on the available data. RESULTS: All anti-TNFs were significantly better than control. The indirect comparison did not reveal any statistically significant difference between the anti-TNFs using the updated parameters. CONCLUSIONS: There is insufficient statistical evidence to demonstrate differences in efficacy between available anti-TNFs for PsA. Estimates of effect appear to be sensitive to the analytic approach, so this uncertainty should be taken into account in future economic evaluations.

PMS7 BIOLOGIC DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS AND THE RISK OF NON-VERTEBRAL OSTEOARTIC FRACTURES IN PATIENTS WITH RHEUMATOID ARTHRITIS AGED 50 YEARS AND OVER Roussy JP1, Bessette L2, Bernatsky S3, Rahme E3, Lachaine J2

OBJECTIVES: Chronic inflammation in rheumatoid arthritis (RA) may interfere with bone remodelling. Small studies have suggested biological DMARDs preserve bone mineral density at 6–12 months. Our objective was to determine the risk of non-vertebral osteoporotic fractures in RA subjects aged ≥50, comparing outcomes in patients who were exposed or unexposed to biological DMARDs. METHODS: A nested case-control study from January 2002 to December 2008 was conducted using Quebec physician billing and hospital discharge data. RA subjects were identified from ICD-9/10 codes in billing and hospitalization data. Subjects were followed until the earliest of non-vertebral osteoporotic fracture (index date), death, or end of study period. A validated algorithm identified non-vertebral osteoporotic fractures from physician claims. Controls were matched to cases (1:1 ratio) on age, sex, and date of study entry. Biological DMARD exposure was defined as being on treatment for ≥180 days pre-index. Conditional logistic regression was used, adjusting for indicators of RA severity, comorbidity, drugs influencing fracture risk, and other confounders. RESULTS: Over the study period, 309 cases and 518 age and sex-matched cases were identified (7,175 controls). The most frequent fracture site was hip (41.7%). In total, 190 subjects (53 cases, 137 controls) were exposed to biological DMARDs. We were unable to demonstrate an association between biological DMARDs and fracture risk (Odds Ratio, OR [95% Confidence Interval], CI) 1.16 [0.51-2.62]. RA duration was the strongest impact on fracture risk; for subjects of RA duration ≥10 years (vs. <5), the OR was 4.60 (95% CI 3.57-11.46), while those with RA duration 5-10 years (vs. <5) had an OR of 3.05 (95%CI 1.90-4.89). The inability to detect an effect remained in sensitivity analyses. CONCLUSIONS: Despite the positive impact of biologic DMARDs on bone remodelling observed in small studies, we were unable to demonstrate a reduction in the risk of non-vertebral osteoporotic fractures in older adults with RA.
drugs. For RA, average cost for SC drugs was €24,448 and it was 30 €403 for the infusion drug. For 100 AS patients treated over 2 years, substituting 60% of IV by SC drugs would provide savings of €14,518 in payments for the French Statutory health insurance. For RA, such a substitution would yield a €487,977 saving. Taking into account transportation costs of €50 per visit increased respectively the costs associated with infusion therapies to €31,534 for AS and €31,056 for RA. CONCLUSIONS: In the context of increasing scrutiny over their public health expenditure, increases in costs should drive the choice of treatment route of administration. Overall, replacing current IV Anti-TNF therapies by SC treatments would entail substantial benefits for the French Statutory Health Insurance.

PM011
BUDGET IMPACT ANALYSIS IN SPANISH PATIENTS WITH DUPYTNIEUX’S CONTRACTURE: FACTOJECTOMY VERSUS COLLAGENASE CLOSTRIDIUM HISTOCYTOLICUM DE SALAS-CANASDO M1, CUADROS M2, ARANDES JM3, DEL CORO M4, MUÑOZ R5, LWOOF N6

OBJECTIVES: To estimate the budget impact analysis of Collagenase Clostridium histolyticum (CCH) vs. fasciectomy (FSC) for the treatment of Dupuytren’s Disease (DD) in Spain. METHODS: A cost minimization analysis was adopted (effectiveness was assumed to be equivalent for both techniques). DD related costs were considered: CCH costs (including drug, administration and visits) were obtained from clinical trials and a real-life study. FSC costs (including type of admission, visits, emergency room, re-admissions, tests, drugs and rehabilitation costs) were collected through a retrospective, observational, local study. Unit costs were obtained from local databases (e-SALUD and BOT). Results were presented from the NHS perspective for the next 3 years. We assumed 5,100 fasciectomy’s/year (1% annually) and 15,000 DD patients who will annually utilize CCH. In addition a 10, 15, and 20% of untreated diagnosed patients were expected to receive CCH. All the data were validated through an expert panel. A sensitivity analysis was performed with the main variables. RESULTS: The average FSC cost was €2,250 (72% inpatients), ranging from €1,667 to €2,467 for outpatients and inpatients respectively. The average CCH cost was €1,220 (1.5 vial/injection and 4 visits) and may drop to €0.99 (1.1 vial/injections and 3 visits). The accumulated 3 years BIA was €45,971 [ME -2,993, 3870]. CONCLUSIONS: According to this study, the inclusion of the CCH produced a 3 years cumulative budgetary impact of €45,971 [ME -2,993, 3,870] for the NHS.

PM012
BUDGET IMPACT OF GOLIMUMAB IN THE ANTI-TNF TREATMENT OF RHEUMATOID ARTHRITIS, AKYLOSING SPONDYLITIS AND PSORIATIC ARTHRITIS IN THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM

Leiria AS, Piresca MT, Janssen Clíin Farmacêutica, São Paulo, Brazil

OBJECTIVES: To estimate the budget impact of adopting golimumab for the treatment of rheumatoid arthritis (RA), akylosing spondylitis (AS) and psoriatic arthritis (PsA) in the Brazilian public health care system (SUS). METHODS: In Brazil, four anti-TNF biologics are approved for treating RA, PsA and PsA: adalimumab, etanercept, infliximab, and golimumab. However, only the former three are reimbursed in the SUS. Using the public database, DATASUS, the number of patients receiving TNF-Treatment for RA, PsA (and PsA based on ICD9 codes) was gathered for the last 12 months, along with the associated drug costs. As golimumab is not yet reimbursed, treatment cost was defined according to law, based on the mandatory government discount of 21.67%. RESULTS: Around 38,687 patients received TNF-Treatment for RA, PsA and PsA (etanercept (31,614) and infliximab (7,043) between March 2011 and February 2012 in the SUS for RA, as PsA and PsA. In total, public health care spending with these treatments was about R$ 1,005,311,920,00 for the three indications in the same period (average treatment cost/patient R$ 25,965,78). Assuming the adoption of golimumab in 30% of patients receiving subcutaneous treatment (adalimumab and etanercept), the budget will be reduced by about R$ 101 million (11%) in the first year, excluding taxes. These savings represent over 6,238 new patients/year that can receive treatment with golimumab for RA, as PsA and PsA. The savings can reach up to R$ 303 million/year, if golimumab is adopted as first choice among subcutaneous anti-TNF treatments. CONCLUSIONS: With the lowest treatment cost, golimumab has the potential to reduce public expenditure across all three indications in the SUS. These savings have important benefits for payers and patients, such as an increase in access to treatment or investment in other health priorities. Furthermore, with the frequent dosing, golimumab presents important advantages in terms of patient commodity and logistics.

PM013
COMPARATIVE BUDGET IMPACT OF TERIPARATIDE VERSUS PARATHORMONE 1-84 IN PATIENTS WITH OSTEOPOROSIS: INDICATOR COMPARISON EFFICACY DATA IN ITALY

Migliore A1, Broccoli S2, Iessi E3, Pischiatti P4

1S. Pietro FHF Hospital, Rome, Italy, Italy, 2BIOXiOS, Bologna, Italy, Italy, 3ISEM institute of Research, Fisciano, Italy

OBJECTIVES: To compute the budget impact for the treatment of osteoporosis in Italy following a treatment pattern with TERIPARATIDE vs. PTH 1-84. METHODS: A budget impact model was constructed using a decision-tree analysis with a Monte Carlo technique where a sufficiently large number (currently 50%) of individual patients are processed through the model, saving the result for each patient and calculating a mean group cost. The model incorporates the vertebral fracture and non-vertebral fracture odds ratios for TERIPARATIDE vs. PTH 1-84 from the MTC of Migliore (2012). The odd ratios are held constant for the 18 months of treatment. The analysis was carried out from the perspective of the Italian health care system and therefore only direct costs were considered (drug costs and fracture costs). Vertebral and non-vertebral fracture costs for Italy were taken from Borgstrom (2011) and inflated to year 2012 using a national inflation index. The average non-vertebral fracture cost was calculated by adjusting the non-vertebral fracture costs to the (€276) vertebral fracture cost of the previous year of continuous health plan enrollment before and after the index date (first 14 days). The TERS were obtained from a large U.S. claims database (10/1/2008-09/30/2009). A severity index for rheumatoid arthritis (SIFRA) was developed by calculating a weighted sum of 34 RA-related indicators including laboratory, clinical and functional status, extra-articular manifestations, surgical history, and medications as assessed by similar to health care panel of six rheumatologists. Patients the relationship between SIFRA terciles and health care utilizations and costs was also examined using histograms. A regression model was used to examine the improvement of the model fitting by adding SIFRA. RESULTS: A total of 23,951 RA patients (mean SIFRA 9.14) with laboratory information were identified. Descriptive analysis and a chi-squared analysis of SIFRA terciles showed that the highest SIFRA tercile was associated with higher health care costs and $1,326 more RA-related health care costs than patients in the lower tercile of SIFRA. The most dramatic difference between highest and lowest SIFRA terciles occurred with pharmacy costs ($6,860 vs. $9,191, p<0.001). Healthcare costs followed a similar pattern to health care costs for SIFRA terciles. Patients in the highest SIFRA tercile had higher total office visits (110.14 vs. 77.16, p<0.001) and higher RA-related visits (6.72 vs. 3.93, p<0.001) compared to patients in the lowest tercile. Regression results showed that the model was more than 6-times (611%) superior in explaining the variation in outcomes after adding SIFRA into the model. CONCLUSIONS: SIFRA demonstrated evidence of being a significant determinant of health care costs and utilizations for RA patients. This study suggests that SIFRA could be an important methodological tool to control for severity in RA-related outcomes research.

PM015
DETERMINANTS OF TOTAL HEALTH CARE COSTS ASSOCIATED WITH AKYLOSING SPONDYLITIS PREVALENT CASES IN TURKEY

Baser D1, Burkan A2, Baser E3, Koseleri R4,irtugay E2, Altimira A1

1DIATMED Research/The Bosphorus University, Istanbul, Turkey, 2StatinMED Research/The University of Michigan, Ann Arbor, MI, USA, 3Social Security Hospital, Ankara, Turkey, 4BIOIKOS, Bologna, Italy, Italy

OBJECTIVE: Estimate risk-adjusted health care costs and identify associated risk factors for ankylosing spondylitis (AS) expenditures in Turkey using real-world data. METHODS: Research-identified data from a system that processes claims for all Turkish health insurance funds was analyzed. Adult prevalent AS patients with two visits at least 60 days apart, identified between June 1, 2010 and December 31, 2010, were required to have an AS diagnosis before June 1, 2010, with at least 1 year of continuous enrollment for the baseline and follow-up years. Pharmacy, outpatient and inpatient claims were compiled over the study period for the selected patients. RESULTS: Among 2,383 patients (mean age: 40.52; female: 38%), 51% were age 18-39, 46% were 40-64 years and 3% were age 65 or older. AS diagnoses were most prevalent in the Marmara region (46%), followed by Aegean (17%), Central Anatolia (22%), and Mediterranean (8%). Nearly 40% of AS patients had at least one cardiovascular, diabetic, respiratory, allergy, Crohn’s disease, uveitis and rheumatoid arthritis comorbid condition prior to AS diagnosis. 7% of patients were hospitalized and 46% had at least one outpatient visit prior to diagnosis. Most patients were prescribed non-COX inhibitors (71%) and 35% of patients were prescribed disease-modifying anti-rheumatic drugs (DMARDs). Few patients (1%) had surgery prior to diagnosis. The total annual cost ($4,233) was comprised of mainly pharmacy ($3,760), followed by outpatient ($297), and inpatient costs ($155), and an average copay of $21. Prior comorbid conditions including diabetes, respiratory disease as well as hospitalization, glucocorticoid and DMARD use significantly contributed to annual health care costs, unlike gender and age. CONCLUSIONS: Annual costs of AS patients are significantly lower in Turkey relative to other Euro-Asian countries, yet, pharmaceutical expenditures cover a significant portion of the overall cost. Comparative effectiveness studies are needed to further decrease pharmaceutical expenditures for AS treatment.