tively, QALYs were significantly lower for the most sedentary (Q1) group relative to the two least sedentary groups (Q2 and Q4) adjusted for age, gender, and BMI. Furthermore, for average overweight women age 65, even an additional hour spent in sedentary behavior was associated with greater decreases in median QALYs for those who were more sedentary than those who were less sedentary (Q1: -0.049, Q2: -0.008, Q3: -0.020, Q4: -0.030, 95% CI: -0.060,0.032). CONCLUSIONS: Persons in the most sedentary group suffered the greatest QALY losses. Study results support intervention targeting the most sedentary persons in reducing this behavior.

MUSCULAR-SKELETAL DISORDERS – Cost Studies

PMS25
VALIDATION OF A BUDGET IMPACT MODEL FOR USE OF DENOSUMAB IN POSTMENOPAUSAL WOMEN WITH OSTEOPOROSIS
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OBJECTIVES: To assess the validity of a previously published, updated denosumab budget impact model (BIM), evaluating the budgetary impact to a hypothetical US health plan of increased utilization of denosumab in postmenopausal women with osteoporosis at high risk of fracture. METHODS: The BIM was evaluated using face validity, internal validity and cross validity tests. Face validity of the model was assessed by comparing the underlying Markov model with prior published osteoporosis treatment algorithms and osteoporosis studies in postmenopausal women. Validation was assessed using: 1) extreme value analyses on input parameters; and 2) two-way sensitivity analyses by simultaneously varying the market share, price of denosumab and direct medical costs of fractures. Cross validity tests were conducted on the following input parameters: population parameters, treatment persistence rate and direct medical costs of fractures. RESULTS: In a base case analysis, increasing utilization from 1.9% to 19.6% of eligible patients in year 3 compared with denosumab utilization in postmenopausal osteoporosis.

The current study showed that the denosumab BIM is well validated and can serve as a useful tool to assess potential impact on the plan’s budget of increased denosumab utilization in postmenopausal osteoporosis.

PMS26
BUDGET IMPACT ANALYSIS OF BOTULINUM TOXIN A THERAPY FOR UPPER LIMB SPASTICITY IN HONG KONG
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OBJECTIVES: Upper limb spasticity (ULS) secondary to stroke has a considerable patient burden and healthcare costs, particularly to patients with post stroke pain, as the pain affects their mobility and quality of life (QoL). Botulinum neurotoxin-A (BoNT-A) injections are effective in treating ULS. We aimed to calculate annual cost per-patient basis and the expected overall annual budget impact in Hong Kong using static and dynamic market share scenarios. METHODS: A budget impact model was developed, adopting a Hong Kong healthcare system perspective. Two market-share scenarios were modelled over 5 years. While the static scenario assumed current market share of BoNT-As, the dynamic scenario assumed market share of BoNT-As to rise to 65% across 5 years. Epidemiological data inputs were sourced from the most recently published literature, unit costs for BoNT-As, healthcare resources use assessed by comparing the underlying Markov model with prior published osteoporosis treatment algorithms and osteoporosis studies in postmenopausal women. Validation was assessed using: 1) extreme value analyses on input parameters; and 2) two-way sensitivity analyses by simultaneously varying the market share, price of denosumab and direct medical costs of fractures. Cross validity tests were conducted on the following input parameters: population parameters, treatment persistence rate and direct medical costs of fractures. RESULTS: In a base case analysis, increasing utilization from 1.9% to 19.6% of eligible patients in year 3 compared with denosumab utilization in postmenopausal osteoporosis.

The current study showed that the denosumab BIM is well validated and can serve as a useful tool to assess potential impact on the plan’s budget of increased denosumab utilization in postmenopausal osteoporosis.

PMS28
BUDGET IMPACT ANALYSIS OF BOTULINUM TOXIN TYPE A IN A TREATMENT OF POST-STROKE SPASTICITY IN THE RUSSIAN FEDERATION
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OBJECTIVES: To conduct budget impact analysis of abobotulinumtoxinA, onabotulinumtoxinA and incobotulinumtoxinA in patients with post-stroke spasticity in Russia for 1-year period. Physical therapy was used in all therapy schemes. METHODS: A budget impact model was developed in Excel 2013 to simulate the costs of abobotulinumtoxinA, onabotulinumtoxinA and incobotulinumtoxinA. The total number of patients in Russian Federation was 287,334. According to the performed modeling using up-to-date epidemiological data only 212,126 people survive by the 1st year of the study. The model was developed at the Ministry of Health of the Russian Federation for calculation of medical care costs. Costs of adverse events were calculated basing on Russian clinical guidelines and standard of care prices. Disubiity percentages were taken from Russian Pension Fund database. GDP loss was based on the GDP information from World Bank. For percentage, accepted exchange rate was 1 US$ = 60,29 RUB. RESULTS: AbobotulinumtoxinA treatment in whole population of FPs patients in Russia will result in 1 year comparative savings of 0.7 million compared with onabotulinumtoxinA, US$183,13 million economy compared with incobotulinumtoxinA and will result in US$756 economy for 1 year compared with onabotulinumtoxinA, US$737 economy compared with onabotulinumtoxinA per one patient. This cost reduction is mainly attributed to decrease of GDP loss, disability pensions due to the better efficacy of this BTA drug. CONCLUSIONS: Inclusion of abobotulinumtoxinA therapy in the most cost saving treatment option in the management of post-stroke spasticity in Russia coexists with other BTA medications.

PMS29
RECENT COST TRENDS AMONG PATIENTS USING BIOLGYCIC AGENTS FOR THE TREATMENT OF PSORIATIC ARTHRITIS
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OBJECTIVES: A number of therapeutic classes are available to treat psoriatic arthritis (PsA), including biologic drugs. Although the wholesale acquisition cost of biologic drugs has increased over recent years, there is little published evidence documenting cost trends from the US perspective. The objective of this study was to assess cost trends for patients using biologic therapy for PsA from the US perspective. METHODS: Continuously enrolled adult patients ≥ 18 years with ≥ 2 outpatient diagnoses of PsA were selected from the MarketScan databases if their first biologic prescription date (index date) occurred between July 1, 2008, and July 31, 2013. Patients were included in the study if (1) full access was available to all medical and pharmacy claims for ≥ 6 months before and ≥ 12 months after their index date, and (2) they were biologic-naïve before index. Healthcare costs were assessed from the payer perspective and based on annual reimbursed amounts. Results were stratified by all-cause vs. PsA-related costs and within these 2 categories further subdivided into medical inpatient, medical outpatient, emergency room, and pharmacy costs. RESULTS: In total, 25,565 patients met the inclusion criteria. All-cause healthcare costs in the 6 annual cohorts increased by 5.1% between 2008 and 2013, with an average annual increase of 10.6% (p = 0.026). PsA-related annual costs were estimated to increase by 63.6%, with an average annual increase of 12.7% (p = 2.33). Although cost increases in all categories of interest were observed over time, the driver of the observed trends was the PsA-related pharmacy costs, predominantly the cost of biologic therapy, with an estimated increase of 65.6% and an average annual increase of 13.1% (p = 0.220). CONCLUSIONS: For US managed care populations, biologic healthcare costs among patients initiated on biologic therapy for PsA has increased by 53.1%, which is mostly driven by the 65.6% change in PsA-related pharmacy costs.

PMS30
MODELLING OF SOCIETAL COSTS UNDER DIFFERENT TREATMENT SCHEMES OF POST-STROKE SPASTICITY IN THE RUSSIAN FEDERATION
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