to measure quality of life. The clinical parameters used in the model take into account the results of a MTC of clinical trials (21) whereas, for cost, the model was adapted to the Portuguese context, several adjustments were made to its original version. This study suggests that C-link drug therapy. However, most VFs are not recognized clinically. The results showed the incremental costs for women over age 50 who had VFA screening, only VFA, and only x-ray were $1,112, $1,546, and $1,270 per person, respectively. Future VF incidence was reduced by 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. Probabilistic sensitivity analysis was performed to assess parameter uncertainty. RESULTS: Aclidronic acid therapy dominated all other strategies, resulting in 11.746 QALY and lifetime costs of $34,568. Compared to no preventive therapy, aclidronate conferred an additional 0.458 QALY and saved lifetime costs of $13,753. Risedronate was equally cost-effective, resulting in 11.731 QALY and costs of $34,932. Applying a willingness to pay threshold of $50,000 per QALY, the probability of aclidronate being cost-effective was 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. CONCLUSIONS: Bisphosphonate therapies for secondary prevention of fractures in elderly women would be cost-effective in terms of Japan health care system.

PMS51 PHARMACOECONOMIC ANALYSIS OF TOFACITINIB USE IN RHEUMATOID ARTHRITIS TREATMENT SCHEME
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OBJECTIVES: Evaluate most rational medical technology in the rheumatoid arthritis therapy (RA) (comparison of alternatives – GEDs Tofacitinib and biologics: Infliximab, Abatacept, Certolizumab pegol, Golimumab, Adalimumab and Tocilizumab) from pharmacoeconomic analysis point of view. METHODS: Analysis based on the assessment for one statistically average patient suffering from RA, and weighing 70 kilograms, over a one year course of treatment (52 weeks). The analysis done of direct costs included: cost of DMARDs and biologics therapy use; cost of drug purchase, physician visits cost. Cost minimization and missed opportunities analysis were used. RESULTS: During the effectiveness analysis of RA treatment, based on the meta-analyses of randomized placebo-controlled trials data (including meta-analyses of Kowalke, 2013; El-Salgoda, 2013), Russian and international RA treatment recommendations, it was concluded that there was no statistically significant difference in efficacy and toxicity of the Tofacitinib and the biologics used in the RA treatment. One year treatment course with Tocilizumab, Infliximab, Adalimumab, Certolizumab pegol, Golimumab, and Adalimumab and Tocilizumab cost, include subcutaneous route of administration, will amount to 12,818 EUR, 20,932 EUR, 14,855 EUR, 18,104 EUR, 19,642 EUR, 20,120 EUR and 21,664 EUR. Further study CONCLUSIONS: Pharmacoeconomic analysis of new drug that therapy with Tofacitinib in comparison with biologics use will reduce the cost of a one year course of treatment for each RA patient from 2.037 EUR to 8.846 EUR. Transition of 100 RA patients into a treatment regimen, includes Tofacitinib use, decreased with drug therapy. However, most VFs are not recognized clinically. The results showed the incremental costs for women over age 50 who had VFA screening, only VFA, and only x-ray were $1,112, $1,546, and $1,270 per person, respectively. Future VF incidence was reduced by 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. Probabilistic sensitivity analysis was performed to assess parameter uncertainty. RESULTS: Aclidronic acid therapy dominated all other strategies, resulting in 11.746 QALY and lifetime costs of $34,568. Compared to no preventive therapy, aclidronate conferred an additional 0.458 QALY and saved lifetime costs of $13,753. Risedronate was equally cost-effective, resulting in 11.731 QALY and costs of $34,932. Applying a willingness to pay threshold of $50,000 per QALY, the probability of aclidronate being cost-effective was 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. CONCLUSIONS: Bisphosphonate therapies for secondary prevention of fractures in elderly women would be cost-effective in terms of Japan health care system.

OBJECTIVES: Estimate the incremental cost-effectiveness ratio (ICER) of dual-mobility cups (MTC) of clinical trials (21) whereas, for cost, the model was adapted to the Portuguese context, several adjustments were made to its original version. This study suggests that C-link drug therapy. However, most VFs are not recognized clinically. The results showed the incremental costs for women over age 50 who had VFA screening, only VFA, and only x-ray were $1,112, $1,546, and $1,270 per person, respectively. Future VF incidence was reduced by 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. Probabilistic sensitivity analysis was performed to assess parameter uncertainty. RESULTS: Aclidronic acid therapy dominated all other strategies, resulting in 11.746 QALY and lifetime costs of $34,568. Compared to no preventive therapy, aclidronate conferred an additional 0.458 QALY and saved lifetime costs of $13,753. Risedronate was equally cost-effective, resulting in 11.731 QALY and costs of $34,932. Applying a willingness to pay threshold of $50,000 per QALY, the probability of aclidronate being cost-effective was 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. CONCLUSIONS: Bisphosphonate therapies for secondary prevention of fractures in elderly women would be cost-effective in terms of Japan health care system.

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Kulakov A, Komarov I
First Moscow State Medical University named after I.M. Sechenov, Moscow, Russia
OBJECTIVES: Evaluate most rational medical technology in the rheumatoid arthritis therapy (RA) (comparison of alternatives – GEDs Tofacitinib and biologics: Infliximab, Abatacept, Certolizumab pegol, Golimumab, Adalimumab and Tocilizumab) from pharmacoeconomic analysis point of view. METHODS: Analysis based on the assessment for one statistically average patient suffering from RA, and weighing 70 kilograms, over a one year course of treatment (52 weeks). The analysis done of direct costs included: cost of DMARDs and biologics therapy use; cost of drug purchase, physician visits cost. Cost minimization and missed opportunities analysis were used. RESULTS: During the effectiveness analysis of RA treatment, based on the meta-analyses of randomized placebo-controlled trials data (including meta-analyses of Kowalke, 2013; El-Salgoda, 2013), Russian and international RA treatment recommendations, it was concluded that there was no statistically significant difference in efficacy and toxicity of the Tofacitinib and the biologics used in the RA treatment. One year treatment course with Tocilizumab, Infliximab, Adalimumab, Certolizumab pegol, Golimumab, and Adalimumab and Tocilizumab cost, include subcutaneous route of administration, will amount to 12,818 EUR, 20,932 EUR, 14,855 EUR, 18,104 EUR, 19,642 EUR, 20,120 EUR and 21,664 EUR. Further study CONCLUSIONS: Pharmacoeconomic analysis of new drug that therapy with Tofacitinib in comparison with biologics use will reduce the cost of a one year course of treatment for each RA patient from 2.037 EUR to 8.846 EUR. Transition of 100 RA patients into a treatment regimen, includes Tofacitinib use, decreased with drug therapy. However, most VFs are not recognized clinically. The results showed the incremental costs for women over age 50 who had VFA screening, only VFA, and only x-ray were $1,112, $1,546, and $1,270 per person, respectively. Future VF incidence was reduced by 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. Probabilistic sensitivity analysis was performed to assess parameter uncertainty. RESULTS: Aclidronic acid therapy dominated all other strategies, resulting in 11.746 QALY and lifetime costs of $34,568. Compared to no preventive therapy, aclidronate conferred an additional 0.458 QALY and saved lifetime costs of $13,753. Risedronate was equally cost-effective, resulting in 11.731 QALY and costs of $34,932. Applying a willingness to pay threshold of $50,000 per QALY, the probability of aclidronate being cost-effective was 76.2 % and 23.8% for alendronate and risedronate, respectively. These results did not change in women aged 70 and 75 years. CONCLUSIONS: Bisphosphonate therapies for secondary prevention of fractures in elderly women would be cost-effective in terms of Japan health care system.
OBJECTIVES: A tailored accelerated physiotherapy (AP) program resulting from this study (RHA) has been shown to be effective for improving hip function and range of motion in young male patients; however, no evidence has been provided on its cost-effectiveness. The aim of this UK trial-based economic evaluation was to assess the cost-effectiveness of AP versus a standard rehabilitation program (SRP). Trials participating patients with ultrarapidly progressive refractory rheumatoid arthritis (RA) were randomized to AP or SRP. The experimental arm followed an 8-week program with no hip precautions, full-weight bearing from day one, tailored exercises and an additional physiotherapy session. The control group received the standard 8-week course of rehabilitation. At 6, 16, and 52 weeks, patients reported primary and secondary health care contacts, use of equipment, and private health contacts. These data were valued using 2012/2013 national average unit costs. The 3-level EuroQol EQ-5D questionnaire was completed by patients at baseline, 6, 16 and 52 weeks and used to calculate Quality Adjusted Life Years (QALYs) to 12 months. RESULTS: 80 young males (median age: 55 years) were randomized to AP (n=40) or SRP (n=40). Preliminary results showed mean quality-adjusted life expectancy (QALE) of 52 weeks for AP and 49 weeks in the SRP arm (mean (95% CI) difference = -€237 (-€582 to €108)). There were more visits to secondary care and primary care practitioners in the SRP arm. Mean (SE) QALYs were 0.84 (0.02) with AP and 0.72 (0.03) with SRP (mean (95% CI) difference 0.12 (0.02) QALY). The probability that AP is cost-effective at a maximum willingness to pay of €20,000 per QALY is 99%. CONCLUSIONS: From the perspective of the health care provider, a tailored accelerated physiotherapy programme for younger male patients undergoing RHA appears cost-effective when compared to a standard rehabilitation programme.

PMSS5

RITUXIMAB AS FIRST CHOICE FOR PATIENTS WITH REFRACTORY RHEUMATOID ARTHRITIS: COST-EFFECTIVENESS ANALYSIS IN IRA IN BASED ON A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: The aim of this study is evaluation of the effectiveness and cost-effectiveness of Rituximab as first-line therapy compared with other biologic DMARDs in treating patients with refractory rheumatoid arthritis in Iran. The incremental cost-effectiveness ratio (ICER) was calculated in this study. Sensitivity analyses were undertaken to evaluate robustness of results.

METHODS: We used a Markov model to estimate the life time costs and QALYs gained in patients with RA with severe therapeutic failure who were treated with different therapies. Main input parameters were obtained from previous studies by Iranian rheumatologists. The Markov model was run for 20 years with a 6-month time step. The results were used to calculate the cost-effectiveness. The cost of ITX at the dose of 1000mg was €237. The threshold of cost-effectiveness was $21684.

RESULTS: The cost of ITX was $45900 to $70223 in the base case, and $32386 to $49550 for generic scenario. The model estimated the mean ICER for ITX vs. alternative therapies was $115528 per QALY gained. The ICERs were $23709 per QALY for ITX vs. TNF antagonists and $59981 per QALY for ITX vs. combination therapies with MTX, respectively. This study shows that ITX adds $115528 per QALY gained and if the cost-effectiveness threshold is $21684, it is cost-effective.

CONCLUSIONS: This study shows that ITX adds $115528 per QALY gained and if the cost-effectiveness threshold is $21684, it is cost-effective.

PMSS5

COST-EFFECTIVENESS ANALYSIS OF STRONTIUM RANELATE VERSUS ALTERNATIVE THERAPIES IN PATIENTS WITH POST-MENOPAUSAL WOMEN IN MALAYSIA USING A MARKOV MODELLING APPROACH

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OBJECTIVES: Osteoporotic fractures are common in older adults and are often associated with high morbidity and mortality. As the incidence increases with age, it is natural that osteoporotic fractures have become a major health problem worldwide. Increasing number of patients with osteoporotic fracture will have a serious economic burden to the health system. As the awareness of osteoporosis increases, this study is to study the cost-effectiveness of strontium ranelate compared to alendronate for patients with post-menopausal osteoporotic fractures in Malaysia.

METHODS: A Markov model was developed to project clinical and economic outcomes for patients with post-menopausal osteoporotic fractures (N=1,000) over a 5-year time horizon. This study was conducted from a payer perspective. Model parameters including transition probabilities and costs of treating fracture at various sites were Malaysia-specific. Drug costs were obtained from a public teaching hospital in Kuala Lumpur. Utilities were derived from previous literatures and efficacy data were derived from two pivotal trials, i.e. SOTI and TROPOS trials. Outcomes were presented as cost per quality-adjusted life year (QALY) gained. A discount rate of 3% was applied. Both 1-way and multivariate probabilistic sensitivity analyses were undertaken to evaluate robustness of results.

RESULTS: Compared to alendronate, strontium could prevent 328 wrist, 192 hip, 7 vertebra and 115 multiple fractures respectively over 5 years, which was translated into 27.9 QALYs gained. Using strontium can lead to cost reduction of MYR416,595 (US$442,685), MYR78,257 (US$149,455), MYR22,784 (US$7,120) and MYR61,883 (US$18,819) at 10%, 20%, 30% and 40% costs respectively. The total reduction of direct medical costs of MYR279,519 (US$712,349) was larger than the extra drug cost, hence making strontium a cost-saving therapy.

CONCLUSIONS: The results of this study appeared to be more cost-effective as compared to alendronate and hence should be recommended in the public sector in Malaysia.

PMSS6

MABThera® (RITUXIMAB) FOR THE TREATMENT OF SEvere GRANULOMATOSIS WITH POLYANGIITIS (GPA) AND MICROSCOPIC POLYANGIITIS (MPA) – A COST-UTILITY MODEL FOR THE UNITED KINGDOM

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OBJECTIVES: To evaluate the cost-effectiveness of MabThera in patients with severe GPA and MPA in the United Kingdom (UK). BACKGROUND: In March 2014 NICE issued positive guidance for the use of MabThera in patients with severe GPA and MPA (TA 308). METHODS: To assess the indirect costs of RA, CD and Ps in an employed population data on presenteeism and absenteeism related with analyzed diseases: RA patients (only patients in productive age – 18-60/65 were included in the study). To assess the indirect costs of RA, CD and Ps in an employed population. Lost productivity was measured with Work Productivity and Activity impairment questionnaire (WPAI) and Versitas questionnaire. Probabilistic sensitivity analyses were undertaken to evaluate robustness of costs: Results.

RESULTS: Compared to alendronate, strontium could prevent 328 wrist, 192 hip, 7 vertebra and 115 multiple fractures respectively over 5 years, which was translated into 27.9 QALYs gained. Using strontium can lead to cost reduction of MYR416,595 (US$442,685), MYR78,257 (US$149,455), MYR22,784 (US$7,120) and MYR61,883 (US$18,819) at 10%, 20%, 30% and 40% costs respectively. The total reduction of direct medical costs of MYR279,519 (US$712,349) was larger than the extra drug cost, hence making strontium a cost-saving therapy.

CONCLUSIONS: The results of this study appeared to be more cost-effective as compared to alendronate and hence should be recommended in the public sector in Malaysia.

PMSS7

PRODUCTIVITY LOSS DUE TO RHEUMATOID ARTHRITIS (RA), CROHN'S DISEASE (CD) AND PSORIASIS (PS) IN POLAND

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OBJECTIVES: To evaluate the costeffectiveness of MabThera in patients with severe GPA and MPA in the United Kingdom (UK). BACKGROUND: In March 2014 NICE issued positive guidance for the use of MabThera in patients with severe GPA and MPA (TA 308). METHODS: An economic model was developed to reflect the health care system and the current treatment pathway in the UK. The cost-effectiveness analysis employs a Markov model with four health states: complete remission, non-remission, uncontrolled disease and death. Patients were assumed to start in the non-remission health state, transitioning based on their response to treatment. Relapsing patients who have exhausted all available treatment options they are assumed to enter the uncontrolled disease health state where they remain until death. The efficacy and cost-effectiveness data were derived from the RAVE study (Stone et al 2010) which demonstrated that MabThera was noninferior to cyclophosphamide (CYC). In a subgroup of patients who had received prior therapy, MabThera was superior to CYC. Benefits were expressed as QALYs. Costs were calculated from a societal perspective. The analysis calculated incremental costs and benefits associated with the addition of MabThera to the treatment paradigm which was assumed to consist of CYC and azathioprine. For patients intolerant to CYC, MabThera was assumed to substitute for CYC. The RAVE trial reports health related quality of life using SF-36. The SF-36 scores were converted to EQ-5D in a post-hoc analysis using a published model [Ara and Brazier 2008]. RESULTS: Base case results estimated incremental costs of approximately €3,700 and incremental QALYs of 0.306. The incremental cost-effectiveness ratio (ICER) was €12,100 per QALY gained. CONCLUSIONS: The results of this analysis suggest that MabThera is a cost-effective treatment for severe GPA and MPA.

PMSS8

A382

VALUE IN HEALTH 17 (2015) A323–A668