QALYs (1.5423) in comparison with adalimumab (1.5048), infliximab (1.4299) and tocilizumab (1.4955). Etanercept appeared as the least expensive alternative at both ACR<20 ($69,410.32) and ACR<70 ($176,178.43). The highest costs were obtained by infliximab, ACR<20 ($139,291.80) and ACR<70 ($612,236.06). Cost-effectiveness analyses exhibited etanercept as the dominant strategy. Acceptability curves showed that at the willingness-to-pay of US$8,000/QALY, the probability that etanercept is cost-effective met 100%. PSA results support the robustness of these findings. **CONCLUSIONS:** Etanercept is the most cost-effective alternative for treating RA against other anti-TNF and IL-6 blockers. According to <3 GDP per capita ($5,200; 2010) threshold of Guatemala, etanercept is a cost-effective treatment for RA.

PMS9

WHAT IS THE VALUE OF THE NEW KID ON THE BLOCK?: TOCILIZUMAB VERSUS ABATACEPT FOR RHEUMATOID ARTHRITIS IN COLOMBIA

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OBJECTIVES: Determine the cost-effectiveness of abatacept or tocilizumab in patients with rheumatoid arthritis (RA) with inadequate response to methotrexate (IR-MTX) in Colombia. **METHODS:** A patient-level simulation based on the Birmingham Rheumatoid Arthritis Model was adapted to the clinical practice patterns and demographic characteristics of the patients and validated by clinical experts in Colombia. The functional disability was assessed using the Health Assessment Questionnaire (HAQ); the mean scores and the distribution were derived from subjects screened to participate in clinical trials in Latin America. The effect of biologic therapy was assessed using changes in HAQ scores for the first 6 months based on a mixed treatment comparison and then projected over time. Direct medical costs were calculated from private and public providers, and the information system of the Ministry of Social Protection (SISMED). A 20-year time horizon and the payer's perspective were assumed. Costs and health outcomes were discounted at 3% annually. Sensitivity analyses were performed to the main parameters of the model. **RESULTS:** A hypothetical cohort of 1,000 patients with RA - IR MTX followed for 20 years or until death, the mean direct medical costs per patient for abatacept were U$132,654 (129,198-145,203), compared to U$283,753 (275,809-315,551) for tocilizumab. For the group of subjects treated with abatacept, 84% of these costs were associated with the drug; for tocilizumab, 93% of the costs are associated with the drug. The mean number of life years were 29.27 (28.45-30.15) and 29.25 (28.43-30.13) for abatacept and tolicizumab respectively. The mean number of QALYs (discounted) by abatacept, and tocilizumab were: 7.21 (7.02-7.42), and 7.15 (6.96-7.37) respectively. Using abatacept as the reference treatment, tolicizumab provided less utility at a higher cost, being dominated by abatacept. **CONCLUSIONS:** For the treatment of RA in patients with IR MTX in Colombia, the use of abatacept, as the reference treatment, is dominant over tocilizumab.

PMS10

COST-EFFECTIVENESS OF DULOXETINE COMPARED TO PREGABALINE IN PATIENTS WITH FIBROMYALGIA FROM THE PUBLIC HEALTH CARE SYSTEM PERSPECTIVE IN MÉXICO

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OBJECTIVES: Fibromyalgia (FM) is a disease with a great economic impact not only related to the costs associated but also to the loss of productivity. Effective treatment options in the Mexican market are few. The objective of the present analysis is to assess the cost-effectiveness of duloxetine in the treatment of patients with FM versus pregabalin. **METHODS:** Alternatives to compare were: (1) duloxetine 60 mg / day and 120 mg / day and (2) pregabalin 300 mg / day and 450 mg / day. A decision tree model was developed with a 12 weeks time horizon in which patients maintained response, lost response or dropped out. Relative rates of response for other comparators over placebo were extracted from a systematic review of published randomized controlled studies for achieving a reduction of 30% in the Brief Pain Inventory average pain severity score or a "much improved" or "very much improved" rate in the Patient Global Impression of Improvement (PGI). Resource use associated with fibromyalgia management was estimated from published studies and costs were estimated from the Mexican Public Healthcare Payer perspective at 2010 USD prices. **RESULTS:** In the base case duloxetine 60 mg/day versus the two indications of pregabalin were compared considering the price per milligram for the 14 and 28 tablets of 75 mg presentations of pregabalin. In this case, duloxetine is a dominant strategy versus pregabalin in 3 out of four scenarios and highly cost-effective when compared duloxetine 120mg/day versus pregabalin 300mg/day. Further analysis (considering presentation 14/28 tablets of 150 mg of pregabalin), shows that duloxetine is a highly cost-effective alternative with cost-effectiveness ratios of $34-405 USD range per one additional response. **CONCLUSIONS:** Results suggest duloxetine is a dominant and highly cost-effective alternative compared with pregabalin at therapeutic doses published in studies of comparable design in patients with FM.

PMS11

REVIEW OF THE STUDIES ON ECONOMIC EVALUATION OF TREATMENT FOR POSTMENOPAUSAL OSTEOPOROSIS

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OBJECTIVES: The use of economic evaluation studies has been increasingly common, especially in the field of osteoporosis, in which there is wide a variation in effectiveness and costs of therapeutic strategies. Aiming to identify relevant studies, there was a complete review of the economic evaluations, conducted in Brazil and abroad, focusing on the treatment of postmenopausal osteoporosis to support decision-making on health policies in Brazil and Latin America. **METHODS:** There was a search on PubMed and the national scientific journals until February 2011. We used the keywords {osteoporosis} and {postmenopausal or post-menopausal} and {cost effectiveness or cost benefit or cost utility or Economic Evaluation}. **RESULTS:** 147 titles and abstracts were found. After careful selection, 29 articles remained for analysis. We found great variability in the methods of studies related to the specific issues of each country (demographic and epidemiological factors), associated with the perspective adopted, the prices, the valuation of health states by population (utility) and according to factors inherent to economic modeling. Most studies that compared treatment strategies with no treatment at all, found a reasonable incremental cost-effectiveness ratio (ICER), according to the willingness to pay of each country. The interventions have become more cost-effective with increasing age, decreasing bone mineral density and the presence of previous fractures. In general, bisphosphonates were the strategies that were evaluated the most and they showed better results in ICER's. Teriparatide was not cost-effective. Studies evaluating hormone replacement therapy found good ICER, but call attention to the increased risk of breast cancer. Vitamin supplementation, strontium ranelate, raloxifene, and denosumab were evaluated and showed variable results depending on the perspective, of the country and the assumptions. **CONCLUSIONS:** It was not possible to extrapolate any of the results to the population of Brazil or countries of Latin America, limiting its use to decision makers in yours different locations.

PMS12

EVALUACION ECONOMICA DE RITUXIMAB VERSUS ANTI-TNF EN PACIENTES CON ARTRITIS REUMATOIDE Y FALLA PREVIA A ANTI-TNF EN MÉXICO

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OBJECTIVOS: Aproximadamente 30% de los pacientes con artritis reumatoide (AR) tratados con inhibidores del factor de necrosis tumoral (anti-TNF) no alcanzan una mejora de al menos 20% en los criterios del Colegio Americano de Reumatología (ACR). El objetivo fue determinar la relación costo-utilidad de diferentes opciones de tratamiento en pacientes con AR y falla a anti-TNF, desde la perspectiva del sistema público de salud en México. **METODOLOGÍAS:** Se utilizó un modelo de microsimulación (horizonte temporal de por vida) para comparar 12 diferentes secuencias de tratamiento en un millón de pacientes (edad: 40 años, 70% mujeres, peso corporal 66.67kg). En las secuencias, rituximab (2 infusiones de 1g por curso, administrados cada 9 meses) podía ser utilizado inmediatamente tras la falla de un anti-TFN (infliximab, etanercept o adalimumab) o hasta después de agotar los 3 anti-TNF. Mediante una comparación indirecta de 23 ensayos clínicos, se determinaron las respuestas ACR ajustadas para cada agente. Un panel integrado por diez expertos y literatura publicada sirvió para determinar el consumo de recursos. Se consultaron costos unitarios oficiales. Analizamos los costos de adquisición e infusión de medicamentos (incluyendo metotrexato), el costo ambulatorio por respuesta ACR y el costo hospitalario según puntaje HAQ (Health Assessment Questionnaire). **RESULTADOS:** Los costos acumulados de por vida (descontados a una tasa anual de 3%) fueron más bajos para todas las secuencias en las que rituximab fue administrado como primera opción ante una respuesta insuficiente al tratamiento con un anti-TNF. Los ahorros oscilaron entre $6904 y $16,411 pesos mexicanos por paciente. Las mayores diferencias en calidad de vida a favor de iniciar con rituximab se obtuvieron cuando se comparó contra iniciar con infliximab. **CONCLUSIONES:** Este estudio sugiere que iniciar terapia con rituximab inmediatamente después de la primer falla a anti-TNF es una estrategia costo-efectiva en lugar de continuar con otro agente anti-TFN.

PMS13

ECONOMIC MODEL OF WORKPLACE IMPACTS OF ANTI-TNF THERAPY FOR RHEUMATOID ARTHRITIS IN BRAZIL

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OBJECTIVES: To estimate employer productivity offset costs when using Tumor Necrosis Factor inhibitors (TNF-i) therapies for treatment of Rheumatoid Arthritis (RA) using an economic model that encompasses a broad set of workplace costs from RA. **METHODS:** A customizable model of the workplace impacts of alternative RA treatments was calibrated with Brazilian specific parameters based on data from literature, clinical trials, and government sources. The workplace model included employment sector wages to allow for comparisons across industries. Costs of medical leave absenteeism/disability, reduced productivity, job turnover, and work-equipment adaptations were calculated for RA employees on the TNF-i versus other traditional DMARDs RA treatments. Employer costs of RA workers on TNF-i versus traditional DMARDs were compared. **RESULTS:** Across all industries in Brazil, the annual workplace cost of employees with RA was R$4,839 for employees on adalimumab (23% of wages) versus R$8,679 for employees on traditional DMARDs therapies (42% of wages). The R$3,839 offset reduction in employer costs for RA workers on adalimumab included reduced medical leave (R$764) and RA-related job turnover (R$1,076), and higher productivity (R$1,999). Savings per RA worker on adalimumab ranged from R$2,597 (19% of wages) in the waste treatment sector to R$26,312 (19% of wages) in the petroleum product manufacturing sector. **CONCLUSIONS:** RA imposes a large financial burden on employers in Brazil. This burden is substantially less for employees treated with adalimumab than for employees treated with traditional DMARDs as a result of the higher productivity,