The sensitivity analysis confirmed the findings and showed even more favorable results for Secukinumab. **CONCLUSIONS:** ACR 20/50/70 response rates were higher for Secukinumab compared to Adalimumab at 48 weeks. The long term cost per responder for all ACR outcomes at 48 weeks were consistently lower for Secukinumab vs. Adalimumab from a Chilean perspective. These findings indicate that it is more efficient to treat PsA patients with Secukinumab vs. Adalimumab in Chile.

PMS18

CONVENTIONAL AND BIOLOGICAL THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS. A COST ANALYSIS IN COLOMBIA

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OBJECTIVES: The aim of this study is to describe costs related to conventional and biological therapies in patients diagnosed with rheumatoid arthritis in Colombia. **METHODS:** This is a cost description analysis focusing on quantifying direct medical cost by bottom-up approach. We calculated the use of resources of patients treated under a patient centered care model (PCC) in a specialized rheumatology center in Bogotá, Colombia. We estimated costs of conventional and biological therapies in patients with rheumatoid arthritis. Direct medical costs were analyzed from the third payer perspective. Costs were calculated using billing and price information and the official national prices health services databases such as the official Colombian Tariff Manual (SOAT in Spanish), which standardize the maximum price of medical, surgical and hospital prices. Drugs costs were estimated using a national official drugs database (SISMED in Spanish), which contains median estimates and range prices for drugs in the country. Costs were estimated in Colombian pesos and American dollars (1 US$ = COP$3,000.71) of 2016. **RESULTS:** The direct medical median cost of treating patients with rheumatoid arthritis using the conventional therapy was COP$3,662.000 (US$1,220.4). Of these, 1.6% were due to specialized consultation, 3% to laboratory and images tests, 3.3% to other costs and 92.1% due to DMARDs drugs. The direct medical cost of biological therapy was COP$28,591,014 (US$9,528). The main driver of the direct cost were the biological drugs (92.9%). Also, 5.9% of the cost was due to conventional therapy, and 1,2% due to outpatient visits, labs and images tests. Comparing these therapies, we can highlight that treating patients with biological treatment is 7.8 times costlier that the ones treated with conventional treatment. **CONCLUSIONS:** Rheumatoid arthritis is a leading problem of public health worldwide. Conventional and biological drugs were the largest expenditure in the treatment of rheumatoid arthritis.

PMS19

COST BENEFIT ANALYSIS IN THE TREATMENT OF SEVERE OSTEOPOROSIS FROM THE PUBLIC HEALTHCARE SYSTEM PERSPECTIVE IN MEXICO

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OBJECTIVES: The aim of this study was to assess the cost and health effects of teriparatide in women and men with severe osteoporosis (OP) and high risk of Fragility Fractures (FF) from the public health perspective (SeguroPopular/ISSSTE). **METHODS:** Target population was patients aged ≥50 years, with OP and high risk of FF, T-score ≤ 4.0, three clinical risk factors, with recent vertebral fracture not candidates to receive bisphosphonates. Daily subcutaneous injection of teriparatide 20mcg for maximum treatment duration of 18 months was analyzed considering cost-benefit based on the clinical benefit and treatment budget impact. The clinical benefit was represented by a decrease in the risk of new fractures due to osteoporosis fragility, which in turn reduces the economic and social impact they cause, including the negative effect on disability and premature mortality, with a 6-year time horizon. The incidence of FF was obtained from the FRAX® algorithms for Mexican patients. Efficacy data were gathered from placebo-controlled clinical trials of teriparatide. We analyzed acquisition costs of teriparatide and medical care and indirect costs due to FF. Frequency, location of fractures and the years of healthy life expectancy were estimated. The final outcome is reported as the net monetary benefit (NMB) in each institution. **RESULTS:** According to the General Direction on Health Information database, approximately 10,323 patients (SP: 6,479/ISSSTE: 3,844) have suffered FF in 2015. It was assumed only 20% of patients received treatment in SP and 60% in ISSSTE. A timely intervention for the target population in SP/ISSSTE, would reduce the number of FF 48%, and the loss of health life expectancy by 45%/44%, respectively, becoming cost effective allowing a NMB of 10.8/20.1 million (MXN), respectively. **CONCLUSIONS:** Teriparatide has a positive NMB and should be considered as an option in the treatment of severe osteoporosis.

PMS20

COST-EFFECTIVENES ANALYSIS OF ANTI-TNF USE COMPARED TO DMARDS IN THE FATAL AND NONFATAL ACUTE CORONARY ISCHEMIC EVENT

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OBJECTIVES: To evaluate the cost-effectiveness of anti-TNF versus Dmards to avoid a new case of cardiovascular morbidity and death in rheumatoid arthritis. **METHODS:** A cost-effectiveness analysis (CEA) was performed using the Markov model with a 6-month transition cycle and the 30-year time horizon from the perspective of the Brazilian public health system measured by the incremental cost-effectiveness ratio (ICER). Costs were in dollars (US$) and effectiveness in the prevention of a new case of acute ischemic coronary disease and cardiovascular death. **RESULTS:** The incremental effectiveness for coronary artery disease was 2.69 and cardiovascular death 1.33 cases respectively. The univariate analysis identified that the parameter of greatest impact in the (ICER) of both results was the anti-TNF drug. The threshold analysis established that the average cost of anti-TNF for acute ischemic coronary disease should be US$ 406.52 or with an incidence difference between strategies of 0.032. In addition, for cardiovascular death the average cost should be US$ 290.03 or a difference of 0.071. All the probabilistic sensitivity analyzes performed established an unfavorable relationship of the anti-TNF treatment strategy. These results are robust for deterministic and probabilistic analysis. **CONCLUSIONS:** The findings of the CEA among patients with rheumatoid arthritis for ischemic heart disease when compared to the anti-TNF drug treatment strategy against to the dominant strategy with Dmards after 6 months of drug exposure point to an unfavorable relationship, surpassing the Brazilian Health Ministry's willingness to pay in the year 2015.

PMS21

SECUKINUMAB VS ADALIMUMAB FOR THE TREATMENT OF ANKYLOSING SPONDYLITIS: A COST PER RESPONDER ANALYSIS AT 52 WEEKS FROM A BRAZILIAN PERSPECTIVE

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OBJECTIVES: To estimate and compare the long-term cost per responder based on the Assessment of SpondyloArthritis international Society (ASAS) outcomes following 52 weeks of treatment of ankylosing spondylitis (AS) with secukinumab relative to adalimumab. **METHODS:** The cost per responder for each treatment was estimated by dividing the drug acquisition cost for the course of treatment with its response rate. Drug costs were estimated using the public price approved by Brazilian health authority and the number of doses required for 52 weeks. The long-term response rates were estimated using a matching-adjusted indirect comparison (MAIC) technique based on the data from MEASURE 2 and ATLAS clinical trials of secukinumab and adalimumab, respectively. **RESULTS:** MAIC analysis showed that ASAS (20, 40 and 5/6) response rates were significantly higher for secukinumab compared to adalimumab at 52 weeks. ASAS 20, ASAS 40 and ASAS 5/6 response rates were 81% vs. 65%, 62% vs. 47%, 74% vs. 55% for secukinumab vs. adalimumab, respectively. The cost per ASAS 20 responder was BRL61,852 vs. BRL147,546, cost per ASAS40 responder was BRL80,407 vs. BRL205,127, whereas, costs per ASAS 5/6 responder was BRL69,240 vs. BRL175,514 for secukinumab vs. adalimumab, respectively. The costs per ASAS (20, 40 and 5/6) responders were about 60% lower for secukinumab compared to adalimumab for all outcomes at 52 weeks. Sensitivity analyses confirmed the robustness of our analysis. **CONCLUSIONS:** The long-term cost per responder for all ASAS outcomes at 52 weeks were consistently lower for secukinumab vs. adalimumab. These findings indicated that it is more efficient to treat AS patients with secukinumab vs. adalimumab. In addition, more AS patients could be effectively treated in Brazil with secukinumab vs. adalimumab with a given budget, due to the cost-offsets.

PMS22

SECUKINUMAB VS. ADALIMUMAB FOR THE TREATMENT OF PSORIATIC ARTHRITIS: A COST PER RESPONDER ANALYSIS AT 48 WEEKS FROM A BRAZILIAN PERSPECTIVE

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OBJECTIVES: To estimate and compare the long-term cost per responder based on the American College of Rheumatology outcomes (ACR 20/50/70) following 48 weeks of psoriatic arthritis (PsA) treatment with secukinumab relative to adalimumab. **METHODS:** The cost per responder for each treatment was estimated by dividing the drug acquisition cost for the course of treatment with its response rate. Drug costs were estimated using the public price approved by Brazilian health authority and the number of doses required for 48 weeks. The long-term response rates were estimated using a Matching-Adjusted Indirect Comparison (MAIC) technique based on the data from FUTURE 2 and ADEPT clinical trials of secukinumab and adalimumab, respectively. **RESULTS:** The MAIC analysis showed that ACR (20/50/70) response rates were higher for secukinumab 150mg and 300mg compared to adalimumab at 48 weeks. ACR 20 response rates were 80%, 74% and 56% ACR 50 response rates were 57%, 61% and 44%, whereas the ACR 70 response rates were 32%, 43% and 30% for secukinumab 150mg, secukinumab 300 mg and adalimumab respectively. Among PsA patients, costs per ACR20 responder were BRL58,686, BRL127,092 and BRL158,297, the costs per ACR50 responder were BRL81,781, BRL152,160 and BRL203,867 and the costs per ACR70 responder were BRL144,396, BRL217,847 and BRL299,005 for secukinumab 150mg, secukinumab 300mg and adalimumab respectively. The sensitivity analysis confirmed findings with even more favorable results for secukinumab. **CONCLUSIONS:** The long-term cost per responder for all ACR outcomes at 48 weeks were consistently lower for secukinumab (150,300mg) vs. adalimumab. These findings indicate that it is more efficient to treat PsA patients with secukinumab vs. adalimumab. In addition, with a given budget, more PsA patients could be effectively treated in Brazil versus adalimumab, due to the cost-offsets especially in biologic-naïve patients treated with secukinumab 150mg.

PMS23

COST-UTILITY ANALYSIS OF SECUKINUMAB USE VERSUS TNF-A INHIBITORS, IN PATIENTS WITH ANKYLOSING SPONDILYTIS

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OBJECTIVES: To assess the cost-utility of secukinumab in the treatment of ankylosing spondylitis (AS) patients in Colombia versus TNF-α inhibitors **METHODS:** The cost-effectiveness model captures health benefits (measured by quality-adjusted life years [QALYs]) and costs associated with the use of secukinumab and TNF-α inhibitors over time horizons of 1 and 10 years in two subgroups of patients regarding the previous use of biologics: naive and experienced. A Markov model