

PAM 11**APPLYING BACKGROUND RISK DISTRIBUTION TO EVALUATE THE COST-EFFECTIVENESS OF THREE PREVENTIVE DRUG THERAPIES FOR OSTEOPOROTIC FRACTURES**Gao X¹, Madhavan S², Nau D², Ambegaonkar A³, Islam S⁴, Rosenbluth S², Amonkar M²¹PPD Development, Morrisville, NC, USA; ²West Virginia University School of Pharmacy, Morgantown, WV, USA; ³Pfizer Inc, New York, NY, USA; ⁴West Virginia University School of Medicine, Morgantown, WV, USA

OBJECTIVE: To evaluate cost-effectiveness (CE) of three drug therapies for preventing osteoporotic fractures in postmenopausal women from a state Medicaid Program perspective using the estimated risk distribution in the study population. The three therapies are: hormone replacement therapy (HRT), alendronate, and raloxifene. **METHODS:** A hypothetical cohort of white women aged 45–85 years, postmenopausal, and without past incidence of osteoporotic fractures was treated with one of the three alternatives, and tracked over 3 years in a decision model. The CE ratio was defined as the treatment costs [e.g., medications, monitoring, adverse events (AE)] divided by the number of fractures averted. Treatment Willingness-To-Continue (WTC) rate was also considered. Data were collected from literature, expert panel survey, Medicaid claims data, and a risk survey in the study population. Monte Carlo simulations were conducted (distributions used: background risk, cost, and risk reduction rate). Risk or probability of osteoporotic fracture was also divided into three strata: low (risk <0.1), medium (0.10.3). **RESULTS:** Compared to no therapy, the expected CE of HRT was \$29,119 per fracture averted, alendronate: \$35,101, and raloxifene: \$39,760. The incremental CE was \$42,181 for alendronate (relative to HRT) and \$85,509 for raloxifene (relative to alendronate). The incremental CE of alendronate and raloxifene were \$151,981 and \$697,270 among women with low risk (43% of the sample), compared to \$11,099 and \$34,017 respectively among high-risk women (26% of the sample). CE was not sensitive to discount rate and AE probabilities. **CONCLUSIONS:** HRT is the most cost-effective strategy even though it may have relatively high monitoring and AE costs, and low WTC rate. The significant decrease in marginal costs of Alendronate and Raloxifene in high-risk women indicates an economic condition to use these two drugs. The study provides a framework to make risk-appropriate coverage decisions for chemo-preventive agents.

PAM 12**COST-MINIMIZATION ANALYSIS OF THE TREATMENT OF RHEUMATOID ARTHRITIS WITH LEFLUNOMIDE IN COMPARISON WITH THE COMBINATION OF INFlixIMAB AND METHOTREXATE**Rubio-Terrés C¹, Domínguez-Gil A²¹Aventis Pharma SA, Madrid, Spain; ²Hospital Universitario de Salamanca, Salamanca, Spain

OBJECTIVES: To carry out a pharmacoeconomic analysis to compare the efficiency of two rheumatoid arthritis treatments in Spain. **METHODS:** The study consisted of a systematic review of efficacy and toxicity as well as a cost-minimization analysis, carried out using a pharmacoeconomic model, comparing the treatment with leflunomide and the combination of infliximab and methotrexate during one year. **RESULTS:** Clinical trials directly comparing both treatments are not available. The response rate ACR20 combined, after one year, was 53.0% (CI95%: 49.2%–56.4%) with Leflunomide and 42.0% (CI95%: 31.2%–52.5%) with the combination of Infliximab and Methotrexate (P = 0.051). There were no statistically significant differences in the ACR50 response (27.0 vs 21.0, respectively; P = 0.19). There were fewer infections with Leflunomide than with the combination, both respiratory (15.0% and 34.0%, respectively; P = 0.0003) as well as urinary (0.0% and 3.0%, respectively; P = 0.10). In the basic case, the cost per patient of a yearly treatment with Leflunomide or with Infliximab and Methotrexate is estimated to be 315,023 Ptas (Spanish pesetas) (1,893 euros, €) and 2,596,286 Ptas (15,604 €), respectively. Therefore, the incremental cost of the combined treatment would be 2,281,263 Ptas (13,711 €). The sensitivity analysis was carried out using the minimum and maximum costs given by the standard deviations of the unit costs and by modifying other variables, as no significant differences compared to the basic case were found. **CONCLUSIONS:** The cost per patient after one year of treatment is higher with the combination of Infliximab and Methotrexate compared to Leflunomide, this is basically due to the higher acquisition cost of Infliximab.

PAM 13**A COST-EFFECTIVENESS MODEL COMPARING CELECOXIB AND ROFECOXIB TO TRADITIONAL NSAIDS FOR OSTEOARTHRITIS TREATMENT**Schaefer MG^{1,2}, Morreale AP², Plowman BK²¹University of the Pacific, San Diego, CA, USA; ²VA San Diego Healthcare System, San Diego, CA, USA

OBJECTIVES: Recent studies have demonstrated slightly improved gastrointestinal (GI) complication rates with cyclooxygenase-2 (COX-2) inhibitors versus non-steroidal anti-inflammatory (NSAID) medications in patients not taking aspirin, however the cost avoidance from such events alone does not justify the high costs of these agents. Evidence that other non-GI adverse events may be lower with COX-2 inhibitors is emerging. Since efficacy of these agents appears to be similar, analysis of value can be compared by evaluating adverse event profiles. The purpose of this pharmacoeconomic model is to characterize the relative cost-effectiveness of celecoxib and rofecoxib compared to traditional NSAIDs in osteoarthritic patients not taking aspirin from the perspective of the Veterans Affairs (VA) Health care System. **METH-**