METHODS: To determine the incremental cost-effectiveness of TNF-α inhibitors to other psoriasis treatment strategies. METHODS: The cost-effectiveness of ten treatment options from three drug classes- TNF-α inhibitors, systemic therapies and phototherapy- were evaluated using a decision analysis model constructed using DATA Treeage. The probabilities of success were obtained from PASI-75 scores from published clinical trials. The annual drug costs were obtained from the Drug Topics Red Book and published clinical trials. Additional costs associated with treatment, which included annual pharmacy costs and costs for professional and institutional services, were obtained from published reports. Incremental cost effectiveness ratios (ICERs) were calculated for additional cost divided by incremental PASI-75 values, and were estimated relative to the drug with the lowest cost. Multiple sensitivity analyses were performed to determine the robustness of the findings. RESULTS: Phototherapy was found to be the most cost-effective treatment option with an ICER of $16,435.89/PASI-75, relative to systemic therapy. The most cost-effective TNF-α inhibitor was infliximab, with an ICER of $15,733/PASI-75, relative to adalimumab. Infliximab had the highest drug acquisition cost ($21,250) among the 10 treatment strategies. While Goekerman therapy with a PASI-75 score of 100 had the highest clinical effectiveness among all the treatment strategies examined, the more effective TNF-α inhibitor was infliximab, with a PASI-75 score of 82.3. Sensitivity analysis indicated that the results were affected by the model assumptions. CONCLUSION: Thus, phototherapy was found to be the more cost-effective treatment option in this analysis. It is expected that the cost of TNF-α inhibitors will be lower in the future.

A COST-EFFECTIVENESS ANALYSIS OF TNF-ALPHA INHIBITORS IN COMPARISON TO OTHER STRATEGIES IN THE TREATMENT OF MODERATE-TO-SEVERE PSORIASIS: A DECISION ANALYSIS MODEL
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OBJECTIVE: In comparison to traditional treatment options, TNF-α inhibitors have shown promise in increasing the clearance of psoriatic lesions and improving the quality-of-life of patients with moderate-to-severe psoriasis. They are however associated with higher costs and side-effects. The study objective was to compare the cost-effectiveness of TNF-α inhibitors to other psoriasis treatment strategies. METHODS: The cost-effectiveness of ten treatment options from three drug classes- TNF-α inhibitors, systemic therapies and phototherapy- were evaluated using a decision analysis model constructed using DATA Treeage. The probabilities of success were obtained from PASI-75 scores from published clinical trials. The annual drug costs were obtained from the Drug Topics Red Book and published clinical trials. Additional costs associated with treatment, which included annual pharmacy costs and costs for professional and institutional services, were obtained from published reports. Incremental cost effectiveness ratios (ICERs) were calculated for additional cost divided by incremental PASI-75 values, and were estimated relative to the drug with the lowest cost. Multiple sensitivity analyses were performed to determine the robustness of the findings. RESULTS: Phototherapy was found to be the most cost-effective treatment option with an ICER of $16,435.89/PASI-75, relative to systemic therapy. The most cost-effective TNF-α inhibitor was infliximab, with an ICER of $15,733/PASI-75, relative to adalimumab. Infliximab had the highest drug acquisition cost ($21,250) among the 10 treatment strategies. While Goekerman therapy with a PASI-75 score of 100 had the highest clinical effectiveness among all the treatment strategies examined, the more effective TNF-α inhibitor was infliximab, with a PASI-75 score of 82.3. Sensitivity analysis indicated that the results were affected by the model assumptions. CONCLUSION: Thus, phototherapy was found to be the more cost-effective treatment option in this analysis. It is expected that the cost of TNF-α inhibitors will be lower in the future.

A COST-EFFECTIVENESS ANALYSIS OF BRIMONIDINE/TIMOLOL
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OBJECTIVE: To determine the incremental cost-effectiveness of brimonidine/timolol versus dorzolamide/timolol for lowering intraocular pressure (IOP). METHODS: A cost-effectiveness analysis was performed using clinical data from 2 investigator-masked, randomized, 3-month, parallel-comparison studies performed at 10 sites. In a post-hoc analysis of those patients receiving monotherapy treatment for IOP lowering (either brimonidine/timolol or dorzolamide/timolol) for three months, the proportion of patients at various IOP levels were calculated and statistically compared. A 3-month supply of each drug was calculated based on their respective WAC price and bottle size (5 ML brimonidine/timolol and 10 ML dorzolamide/timolol). The incremental cost-effectiveness ratio (ICER) was calculated as the difference in drug cost divided by the difference in the percentage of patients meeting the IOP threshold at three months between brimonidine/timolol and dorzolamide/timolol. RESULTS: A 3-month supply of brimonidine/timolol and dorzolamide/timolol were $169.83 and $154.40, respectively yielding a cost difference of $15.44. The proportion of patients at lower IOP thresholds was consistently higher with brimonidine/timolol compared to dorzolamide/timolol resulting in a statistically significant incremental benefit for the thresholds from less than 17mmHg to less than 12mmHg. The associated ICERs for those thresholds range from $55.12-$85.75 per the percentage of patients reaching the IOP threshold.

A COST-EFFECTIVENESS ANALYSIS OF ANTI-VEGF THERAPIES FOR WET AGE-RELATED MACULAR DEGENERATION—AMD IN BRAZIL: THE PRIVATE PAYER PERSPECTIVE
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OBJECTIVE: To determine the drug cost-effectiveness ratio for quarterly injections of Ranibizumab in the treatment of Wet AMD, in Brazilian HMOs scenario. METHODS: A cost-effectiveness analysis from the private payer perspective, with a time horizon of five years were conducted. A decision tree with a Markov chain considering the probabilities of increasing, decreasing or maintaining visual acuity (VA) through five health states, based on VA from 20/40 to 20/400, were performed. Study comparators examined were Ranibizumab (RAN), and Pegaptanib Sodium (PEG). The clinical aspects regarding benefits (Vision Year Gained) and probabilities of transition data were extract from a meta-analysis of randomized clinical trials for the alternatives. Treatment costs including adverse events were collected from private payers reimbursement reference list for professional, procedures and diagnoses fees and the drugs costs were collected from manufactures price list. Costs and benefits were validated by a panel of Brazilian specialists through the Delphi technique. The discounting rate was 3% for costs and benefits, the results were converted in US Dollars ($1.8/USD 1.00). A one-way sensitivity analysis was performed. RESULTS: Patients using Ranibizumab get more benefits (RAN = 2.66 per vision year gained; PEG = 2.00 per vision year gained), with the lowest total cost per treatment (RAN = $29,653 USD; PEG = $30,093 USD) and the lowest cost per QALY (RAN = $11,148 USD/ vision year gained; PEG = $15,046.5 USD/per vision year gained). Incremental analysis showed Ranibizumab to be the dominant alternative. Net benefits are greater with Ranibizumab independent of willingness to pay. The sensitivity analysis on efficiency and costs of Ranibizumab results show that the results are sensitive to the type of lesion treated. CONCLUSION: Ranibizumab is the dominant therapy; it offers better benefits in vision years gained at the lowest cost. The results are sensitive to the type of lesion treated, showing the need of guidelines to assure the best resource allocation.

A COST-EFFECTIVENESS ANALYSIS OF BRIMONIDINE/TIMOLOL
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CONCLUSION: We calculated brimonidine/timolol to be more cost-effective than dorzolamide/timolol. Given the importance of achieving target IOP, both cost and effectiveness should be considered when evaluating combination therapies for glaucoma.