OBJECTIVES: To analyze the cost-effectiveness of Omalizumab in addition to Standard of Care (SoC) in the treatment of paediatric patients (>6-year-old) with severe uncontrolled asthma from the perspective of the Public Health Care System in Mexico. METHODS: A Markov model, with cycle duration of 2 weeks, was designed to analyze the cost-effectiveness of Omalizumab vs SoC. Effectiveness was evaluated by the number of exacerbations avoided. The model identifies 4 health-states, and determines the transition probabilities and exacerbations with and without omalizumab. Transition probabilities were obtained from two clinical studies identified after a systematic review, with approximately 627 patients. Omalizumab showed a reduction of 43% in the asthma exacerbation rate vs SoC (Hanjer, 2009). Model time horizon was 20 years, with treatment duration of 6 years. A discount rate of 5% was used for costs and outcomes. Direct medical costs associated with exacerbations were elicited from an expert panel of clinicians and valued by the unitary cost list of the Mexican Institute of Social Security. Drug costs are those from public tenders 2012. Probabilistic sensitivity analysis was performed using Monte Carlo technique. RESULTS: The expected 20-year costs and number of exacerbations per patient with treatment were: Omalizumab US$66,483 ± 31.52; and SoC US$49,857/39.84. It represents 3 exacerbations avoided with an incremental cost-effectiveness ratio of US$5,671 per exacerbation avoided for omalizumab versus SoC, below the Mexican threshold of 1GDP per-capita=US$8,586. Probabilistic sensitivity analysis showed omalizumab was below the threshold 95% of the times, according to the acceptability curve. The model is more sensitive to changes in efficacy and price. CONCLUSIONS: For paediatric patients with severe uncontrolled asthma, treatment with omalizumab is a cost-effective option compared with current SoC in the health system. The higher drug acquisition cost of Omalizumab is offset by the lower rate of exacerbations seen with patients on omalizumab and their related costs.

PSR26 ECONOMIC EVALUATION OF OMALIZUMAB IN PATIENTS WITH UNCONTROLLED SEVERE ALLERGIC ASTHMA FROM THE PUBLIC PAYER PERSPECTIVE IN BRAZIL
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OBJECTIVES: To assess the cost-effectiveness of adding omalizumab to standard therapy (ST) alone in patients with uncontrolled severe allergic asthma from Brazilian public health care system. METHODS: A Markov model comparing lifetime ST with omalizumab add-on therapy was developed based on efficacy data from INTERIM (Phase III trial, N=419, 28 weeks). Outcomes are expressed as clinically significant exacerbation (CSE) and clinically significant severe exacerbation (CSSE) avoided. A CSE is defined as INOVA as worsening of asthma requiring treatment with rescue systemic corticosteroids and a CSSE is defined as FEV1 <60% of personal best, in addition to requiring rescue treatment with corticosteroids or requiring emergency room treatment or hospitalization. Resources used were data (physician consultations, laboratory tests, emergency rooms visits, hospitalizations, drugs treatment) was obtained from INTERIM and valued from the perspective of health care payer. In the model, subjects move back and forth between daily symptoms (optimized asthma control) and the CSE or CSSE states, as they have exacerbations and then recover. Patients can have several CSE sequences with no exacerbation, or a CSE associated with a CSSE and the transition probabilities. The death states are separated into deaths from all causes and asthma-exacerbation related deaths due to severe exacerbations. One-way sensitivity analysis (OWSA) was performed. Annual discount rate of 5% was applied both to costs and outcomes. RESULTS: Base case analysis showed that more CSE and CSSE are avoided with omalizumab add-on therapy, compared with current ST. The incremental cost of omalizumab was $16,000 (incremental of 17.57 and 9.27 respectively) with additional cost of $122,392. Hence, omalizumab is below the threshold of 95% of the times, according to the acceptability curve. The model is more sensitive to changes in extension of exacerbation treatment or severity of exacerbation and additional medical aid in the emergency room for one or two days. If indirect costs caused by one of the parents' absence at work are excluded from the analysis, the priority medicine is an ICS: (CERFluticasone – $1, 98 vs compared to CERMontelukast – $2, 96) even changes in the period of hospitalization of the patients occur (an increase up to 14.7 days) as well as in case of extension of exacerbation treatment or severity of exacerbation and additional medical aid in the emergency room for one or two days. If indirect costs caused by one of the parents' absence at work are excluded from the analysis, the priority medicine is an ICS: (CERFluticasone – $1, 98 vs compared to CERMontelukast – $2, 96). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CERMontelukast – $2, 628). With the change in costs: (1) 3000 outpatients, 1000 inpatients, equal number of patients between 0 and 3000 outpatients; 1000 inpatients, number of patients/month related to seasonality. RESULTS: Omalizumab was below the threshold of 95% of the times, according to the acceptability curve. The model is more sensitive to changes in extension of exacerbation treatment or severity of exacerbation and additional medical aid in the emergency room for one or two days. If indirect costs caused by one of the parents' absence at work are excluded from the analysis, the priority medicine is an ICS: (CER Fluticasone – $1, 98 vs compared to CER Montelukast – $2, 96). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CER Montelukast – $2, 628). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CER Montelukast – $2, 628). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CER Montelukast – $2, 628). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CER Montelukast – $2, 628). The trends obtained in the main analysis remain unchanged (CER Fluticasone – $1, 67 vs for one day without attacks, aggravations, use of salbutamol as compared to CER Montelukast – $2, 628).