the incidence-based economic burden of asthma within lifetime horizon of around 16,193 billion VND. CONCLUSIONS: Understanding the economic impact of asthma on society is fundamental to plan and implement relevant medical policies. The high incidence-based economic burden of asthma of around 16,193 billion VND should be considered to conduct the health care policies in Vietnam.

PSR10 ECONOMIC BURDEN OF PEDIATRIC ATOPIC DERMATITIS IN ASIA-PACIFIC: A REVIEW. Bhanegoukar A1, Ong L1, Horodniceanu EH1, JuX1, Detzel P2, Bottamian M3
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OBJECTIVES: Atopic dermatitis (AD) is a chronic skin disease typically presenting in infancy. A literature review was conducted to identify pediatric AD cost estimates in Asia-Pacific (AP) countries. METHODS: An electronic literature search was conducted in PubMed, Scopus, and Asian electronic reference databases to identify relevant studies reporting on pediatric AD cost estimates in AP countries. Open text search terms were used to maximize the sensitivity of the search strategy. These searches were supplemented by manual reviews of the articles reporting cost estimates in AP countries. RESULTS: Annual AD costs per patient were identified in Australia (cross-sectional survey of 48 parents of AD children; age 4 months-15 years; total costs for all, mild, moderate, and severe: $2,745; $951, $3,105; $4,907, respectively; direct costs only: $1,400, $636; $1,577, $2,420, respectively), South Korea (cross-sectional survey of 196 parents of AD patients; age < 12 years; visiting an allergy clinic; total: $3,522; direct: $1,253), Indonesia (model-based; age: 0-6; urban: total: $767, direct: $398), Philippines (model-based; age: 0-6; urban: total: $371; direct: $363), Singapore (model-based; age: 0-6; urban: total: $1,097; direct: $657), and Thailand (model and chart review of 3,502 AD patients; total costs: all, mild, moderate, severe: $1,577, $636, $1,577, $2,420, respectively). CONCLUSIONS: The economics of pediatric AD in AP has not been extensively studied. Based on available evidence, annual pediatric AD costs are generally high. Variations in cost estimates are due to between-study differences in country of analysis, types of costs included, severity of AD, and costing methodology. Further evaluations of the AD costs and the cost-effectiveness of pediatric AD prevention strategies in AP countries are warranted.

PSR11 BURDEN OF ATOPIC DERMATITIS IN INDONESIA, MALAYSIA, AND SINGAPORE: ESTIMATES FROM A MATHEMATICAL MODEL. Bhanegoukar A1, Horodniceanu EG1, Ju X1, Detzel P2, Bottamian M3
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OBJECTIVES: Children with a family history of atopic disease receiving cow’s milk formula (CMF) are at high risk of atopic dermatitis (AD). Modeling techniques were used to estimate the economic impact of AD among urban high-risk children in Malaysia, Indonesia, and Singapore. METHODS: A cohort Markov model was developed to simulate the cumulative incidence and costs of AD in 3 cohorts (one per country) of urban, high-risk infants partially fed with CMF in early infancy (months 0-4). AD incidence was from the GINI study, the largest,longest prospective experimental study of infant formula and AD in this population. AD treatment patterns and resource use assumptions were derived from expert opinion (n=8). Costing of resource use was based on the respective countries’ prices. Key model output was the overall costs per AD child (converted to 2013 US$) from diagnosis to age 6. Multivariate probabilistic sensitivity analysis was used to generate 95% confidence intervals (CI) around outcome estimates. RESULTS: The cumulative incidence of AD was 38% (95% CI: 22%, 57%), Philippines, 33% (95% CI: 22%, 46%), Indonesia, and 31% (95% CI: 22%, 41%) in Singapore. The total costs per child developing AD were $2,492 (95% CI: $1,887, $3,526), $2,409 (95% CI: $1,775, $3,105), and $1,931 (95% CI: $1,378, $2,536), respectively. CONCLUSIONS: The incidence of AD is an important public health issue in AP countries. Further studies on AD in this population are warranted.

PSR12 COMPARISON OF HEALTH CARE UTILIZATION AND COSTS FOR PATIENTS WITH ASTHMA: SEVERITY AND HEALTH INSURANCE IN THAILAND: USING GENERALIZED LINEAR REGRESSION MODEL. Dilothornskul P1, Lee TA1, Ohippayom Y1, Jeanepearing N1, Chaiyakunapruk N2
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OBJECTIVES: Asthma is a major health care problem. Understanding current patterns of health care utilization is important. Several previous studies compared health care utilization and cost by severity and health insurance, however, they may not be applicable to Thailand. This study aimed to compare health care utilization and cost by asthma severity and type of health insurance in Thailand. METHODS: A retrospective study using an electronic database was conducted in patients with asthma who visited a University-affiliated hospital during 2009-2011. The outcomes were inpatient and outpatient care costs and the numbers of inpatient and outpatient visits. CONCLUSIONS: Health care utilization and cost of managing asthma varied by asthma severity and health insurance type. Compared to high-risk patients, patients with non-high risk were more likely to have utilization of health services. This study can serve as a baseline for further research on asthma health care utilization and cost in Thailand.

PSR13 MISSING DATA ANALYSIS IN LONGITUDINAL STUDIES: FINDINGS FROM A QUALITY OF LIFE STUDY IN MALAYSIAN TUBERCULOSIS PATIENTS. Atif M1, Yaghayezy Z2, Salyman SAS1, Salleh AA1, Low HC2, Babar ZU3
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OBJECTIVES: This study aims to propose an appropriate statistical method to analyze the longitudinal health-related quality of life (HRQoL) data. METHODS: This was a longitudinal HRQoL study conducted among new smear positive pulmonary tuberculosis (PTB) patients diagnosed at the chest clinic of Penang General Hospital between March 2010 and February 2011. Eligible patients (i.e., literate and 18 years and above) were asked to self-complete the SF-36v2 questionnaire (either in Malay, Mandarin, or English) at the start of the treatment and at the end of the treatment. The mean physical component summary (PCS) and mental component summary (MCS) scores, ranging from 47–53, were considered as the threshold scores. Repeated measures ANOVA (with and without imputations) and linear mixed model were used to analyse the data. RESULTS: A total of 216 patients completed the questionnaire at the start of their treatment. Out of the 216 patients, 147 (68%) completed the questionnaire at the follow-ups, respectively. Throughout the treatment, the mean PCS and MCS scores for the patients were less than 47. In repeated measures ANOVA analysis, level of education, diabetes, being alcoholic and chronic with spumun were the significant predictors of PCS, whereas age, sex, race and the frequency of taking TB medicines were the significant variance in the MCS scores. In linear mixed model, ethnicity, marital status, being a smoker, productive cough and ≥ 3 TB-related symptoms were the significant predictors of PCS. CONCLUSIONS: This study highlighted the importance of HRQoL in the treatment of PTB patients. Future research needs to be conducted to better understand the factors that influence the HRQoL and to develop more effective treatment regimens for PTB.

PSR14 HEALTH CARE UTILIZATION AND COST OF MANAGEMENT IN PATIENTS WITH STEVENS-JOHNSON SYNDROME AND TOXIC EPIDERMAL NECROLYSIS IN THAILAND. Ma J1, Horodniceanu E.G.1, Detzel P2
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OBJECTIVES: Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are two forms of life-threatening dermatologic condition. The syndromes are very severe. They require lots of health care resource. However, there is little information about health care resource utilization and cost of managing SJS/TEN. Thus, this study aimed to quantify health care use and cost of managing this syndrome in Thailand. METHODS: A retrospective study using an electronic health database from a 1000 bed- university-affiliated hospital in Thailand was undertaken. Patients who were admitted with SJS/TEN from 2002 to 2007 were included. The cost was determined using the ratio of cost-to-charge of the hospital for each year. The cost was converted to 2013 value by consumer price index. The cost was converted to US$ using $2.97 Thai-baht per 1 US$. RESULTS: A total of 245 patients were included with 56.1% of male. Average age of the patients was 45.3±23.0 years. Of those patients, 118 patients were primarily diagnosed as SJS/TEN, while 39 patients were secondarily diagnosed as SJS/TEN. About 146 patients (93.0%) were diagnosed as SJS and the rest of them were diagnosed as TEN. The average length of stay (LOS) was 10.1±3.2 days for all patients. The LOS for primarily diagnosed patients was 6.8±4.8 days, while the LOS for secondarily diagnosed patients was 20.2±22.5 days. Most of patients (93.0%) were treated with systemic corticosteroids. Prednisolone was commonly used as an oral medication, while dexamethasone was usually used as an inject. The average cost of managing SJS/TEN for all patients was $1,012±563. The median cost was $342 (min-max: $11–$26,345). The average cost for primarily diagnosed patients was $515±724, while that for secondarily diagnosed patients was $2,536±3,713. CONCLUSIONS: Health care utilization and cost of managing SJS/TEN in Thailand were substantial. Policy makers may consider allocating resources to support the development of strategies to minimize preventable SJS/TEN.

PSR15 COST-BENEFIT ANALYSIS OF BACTERIAL LYSATES FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN CHINA. Ma F1, Liu G2, Yao Y1, Xu F1, Lv N1
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OBJECTIVES: This study aimed to investigate the economic impact of using bacterial lysates for chronic obstructive pulmonary disease (COPD) in China. METHODS: A cost-effectiveness analysis of using bacterial lysates for COPD in China was performed using a decision analytic model. A literature review was conducted to identify model inputs. RESULTS: The key input parameters were the prevalence of COPD in China, the effectiveness of bacterial lysate treatment, and the cost of bacterial lysate. CONCLUSIONS: The cost-effectiveness of using bacterial lysates for COPD in China was promising, but further research is needed to validate the model inputs.