Abstracts

any of three evaluated antibiotic. The use of resources as estimated according to Mexican Social Security Institutions expenses and its use were simulated within a decision tree with Bayesian approach. The model considered clinical success as the best health state, reached in either short hospital stay or long hospital stay and a therapeutic failure (i.e., linezolid, DAP, VAN, or LIN) which caused the use of a second-line antibiotic therapy (DAP or LIN depending on first failure). Costs calculation considered hospital stay, concomitant medication and selected antibiotic treatment. Results were evaluated with incremental analysis and one-way sensitivity analysis of the most uncertain variables were also conducted. RESULTS: The use of i.v. Daptomycin as first-line therapy followed by i.v. Linezolid in case of therapeutic failure resulted in the lowest total cost per clinical success (DAP-LIN: $3255.00 USD/CS; VAN-DAP: $3310.00 USD/CS; VAN-LIN: $3310.00 USD/CS; LIN-DAP: $3450.00 USD/CS) with a 98% of CS. The sensitivity analysis varying clinical success rates of every evaluated alternative showed robustness of base study, CONCLUSIONS: Daptomycin is the most cost-effective alternative in the treatment of CSSI when used as first-line antibiotic therapy since its use reduces the length of hospital stay reducing expenses of public health system budget in Mexico.

PS58

COST-EFFECTIVENESS STUDY OF COMPLICATED SKIN AND SKIN-STRUCTURE INFECTIONS TREATMENT IN PUBLIC HEALTH CARE INSTITUTIONS IN MEXICO

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OBJECTIVES: To determine the most cost-effective antibiotic treatment for complicated skin and skin-structure infections (CSSI) in public health care institutions in Mexico.

METHODS: A cost-effectiveness study with institutional perspective was conducted. The cost of use of either i.v. Daptomycin (DAP), i.v. Vancomycin (VAN), or i.v. Linezolid (LIN) as first-line antibiotic therapy. Data collection obtained with a systematic review considered efficacies measured as clinical improvement, length of stay at hospital services and adverse events. A decision tree with Bayesian approach was designed to simulate the use of resources based on patient’s prognosis due to use one of the evaluated alternatives. Patients are supposed to reach either of two different health states: clinical success and therapeutic failure, the former can be attained through a short hospital stay or a long hospital stay depending on selected treatment, the latter results from the administration of a second-line antibiotic therapy increasing cost. Costs calculation considered hospital stay, concomitant medication and selected antibiotic treatment. Results were evaluated with incremental analysis and one-way sensitivity analysis of the most uncertain variables were also conducted. RESULTS: The use of i.v. Daptomycin results in the lowest total cost (DAP: $3,078.00 USD/CS; VAN: $3,139.00 USD/CS; LIN: $3,173.USD) and the lowest cost per clinical success (CS) (DAP: $3,405.00 USD/CS; VAN:$3,550.00 USD/CS; LIN:$3,870.00 USD/CS) compared with i.v. Vancomycin or i.v. Linezolid. The sensitivity analysis varying clinical success rates of every evaluated alternative showed robustness of base study. CONCLUSIONS: Daptomycin is the most cost-effective alternative in the treatment of CSSI when used as first-line antibiotic therapy since its use reduces the length of hospital stay reducing expenses of public health system budget in Mexico.

PS59

REDUCTION OF ACUTE OTITIS MEDIA IN CHILDREN: A COST-CONSEQUENCE ANALYSIS OF THE NEW 10-VALENT PNEUMOCOCCAL NON-TYPEABLE HAEMOPHILUS INFLUENZAE PROTEIN D CONJUGATE VACCINE (PHD-CV) COMPARED WITH THE 7-VALENT PNEUMOCOCCAL VACCINE (PCV-7)

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OBJECTIVES: Acute otitis media (AOM) is a prevalent pediatric condition, affecting approximately 80% of children by three years of age. Routine immunization programs include 7-valent Pneumococcal conjugate vaccine (PCV-7), associated with a reduction of AOM events caused by Streptococcus pneumoniae. The objective of this study was to compare the costs and effects of PCV-7 with PHD-CV, a newly approved in Canada Pneumococcal non-typeable Haemophilus influenzae protein D conjugate, employing an active protein D-carrier associated with reduction of nontypeable Haemophilus influenzae (NTHI) AOM. MEIHODS: A steady-state, population-based model with a one-year time horizon was developed, and calibrated with Canadian epidemiologic and demographic data, to investigate the costs and effects associated with AOM episodes across the Canadian population. A 4-dose schedule for PHD-CV vaccination was compared with a 4-dose schedule for PCV-7 vaccination. The base-case included herd-protection for invasive pneumococcal disease and serotype 6A cross protection. A health care system perspective was taken with the assumption of 100% vaccination coverage. RESULTS: Compared with PCV-7, vaccination with PHD-CV could prevent an additional 170,951 ambulatory visits for AOM, 144,454 antibiotic prescriptions for AOM, and 9,830 hospitalizations for myringotomy per year. With PCV-7, costs associated with AOM were $139.2 million of which $16.9 million could be offset by implementation of routine vaccination with PHD-CV. CONCLUSIONS: Based on the base-case analysis, inclusion of PHD-CV in routine immunization programs across Canada would be cost-saving to the health care system compared with PCV-7. PHD-CV offers substantial benefits in terms of reduced ambulatory visits, antibiotic prescriptions and hospitalizations for AOM, a highly prevalent childhood condition.

PS510

ECONOMIC BURDEN OF MODERATE TO SEVERE CHRONIC PLAQUE PSORIASIS IN CANADA

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OBJECTIVES: Psoriasis is a chronic debilitating immune-mediated inflammatory disease, up to 98% of CS. The sensitivity analysis varying clinical success rates of every evaluated alternative showed robustness of base study, CONCLUSIONS: Daptomycin is the most cost-effective alternative in the treatment of CSSI when used as first-line antibiotic therapy since its use reduces the length of hospital stay reducing expenses of public health system budget in Mexico.

PS511

ECONOMIC BURDEN OF SEVERE CHRONIC HAND ECZEMA/DERMATITIS IN CANADIAN ADULTS

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OBJECTIVES: Severe Chronic Hand Eczema (CHE) or Chronic Hand Dermatitis (CHD), is characterized by thick scaly skin causing painful fissures, erythema, itching, blistering and oedema. Severe CHE/CHD is often unresponsive to conventional topical corticosteroids and results in substantial occupational, personal, and psychological disability. There is currently a lack of information regarding the economic burden of CHE/CHD in Canada. METHODS: A dynamic Excel® model was developed to estimate the cost of treating adults with severe CHE in Canada. Epidemiologically clinical data were derived from systematic literature searches. A Delphi panel of dermatologists provided estimates of resource utilization and validated epidemiologically clinical rates. Given the impact on lost productivity, a pseudo societal perspective was chosen; of pocket expenses (travel and non-prescription psychotherapies) were excluded from the analysis. US cost were costs were derived from Ontario standard tests and reports as 2008 Canadian dollars. RESULTS: In 2008 the estimated adult population was 26 million. From the literature it was determined that 10% of adults may be affected by CHE, of those 6.7% may have severe CHE/CHD. Assessing 10% of these patients don’t adequately respond to topical corticosteroids, an estimated 87,200 Canadians have severe CHE being refractory to topicals. Treatment costs, including lost productivity, was calculated to be $737 million per annum. Even assuming current second-line treatment options are 100% effective, the cost of severe CHE was estimated to be $390 million per annum. CONCLUSIONS: This study estimated the costs of severe CHE/CHD unresponsive to topical corticosteroids in Canada ranges from $390-$737 million per annum. The majority of costs comes from lost productivity due to disease and accessing treatment.

PS512

COSTUTILITY ANALYSIS OF POSTERIOR LAMELLAR KERATOPLASTY IN CANADA

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OBJECTIVES: The purpose of this study was to assess the cost-utility of posterior lamellar keratoplasty techniques, including deep lamellar endothelial keratoplasty (DLEK), Descemet stripping endothelial keratoplasty (DSEK) and Descemet stripping automated endothelial keratoplasty (DASEK), in the treatment of corneal endothelial diseases. METHODS: This cost-utility analysis was performed from a Canadian health system perspective. A Markov model was constructed to compare the cost per quality adjusted life year (QALY) associated to penetrating keratoplasty (PK) and lamellar keratoplasty techniques (DLEK, DSEK and DASEK). The Markov model included all major health states relevant to patients scheduled for corneal transplantation: waiting for transplantation, surviving graft with or without