Analyses were conducted from both the societal and health care system perspective. Sensitivity analyses were performed. RESULTS: Reduction in disease outcomes, disease sequelae and cost-of-illness by health state was observed in the time period post-Prevnar®, across all age groups. The total cost of the vaccination program to the Canadian health care system (including herd immunity effects), from a payer perspective amounted to $74,682,790; this decreased to $46,197,274 from a societal perspective. The total number of illnesses avoided was 86,164. The incremental cost-effectiveness ratio (ICER) was $28,551 and $17,661 per additional QALY from the health system and societal perspectives, respectively. When herd immunity effects were excluded from the analysis, the ICER increased to $166,560 and $115,995 per QALY, respectively. Sensitivity analysis indicated that total cost and ICER results were most sensitive to changes in the epidemiology and cost of otitis media. However, these changes did not considerably impact the results, indicating a robust model. CONCLUSION: Consistent with previous findings, vaccination with Prevnar® is cost-effective. Administration of Prevnar® results in a substantial reduction in pneumococcal disease in vaccinated children and unvaccinated adults.

**Abstracts**

**PIN19**

**COST-EFFECTIVENESS OF GARGLING FOR PREVENTION OF UPPER RESPIRATORY TRACT INFECTIONS**

Shimbo T1, Omata K1, Takahashi Y1, Satomura K2, Kitamura T3, Kawamura T2
1International Medical Center of Japan, Shinjyuku-ku, Tokyo, Japan, 2Kyoto University, Kyoto, Kyoto, Japan, 3Osaka Saiseikai Senn Hospital, Suita, Osaka, Japan

OBJECTIVES: To investigate the cost effectiveness of gargling to prevent upper respiratory tract infections (URI) from a societal perspective. METHODS: The effectiveness of gargling for preventing URI has been demonstrated in a randomized controlled trial in which the participants recorded the frequency of gargling, incidence and severity of URI and duration of daily medicine. Costs of gargling, visiting physicians, medicine, and lost productivity were considered. The cost of gargling was estimated as the opportunity cost of the time required. The utility of severe and moderate URI was also considered. Average costs and utility during 60 days of observation in the trial were estimated as the sum of the average daily cost and utility of the participants remaining staying in the trial. The incremental cost effectiveness ratio (ICER) of gargling when compared with the absence of gargling was calculated, and bootstrap sampling generated an acceptability curve. RESULTS: The estimated unit cost of gargling was 49.2 yen. Assigned participants gargled 4.5 times per day on average. The gargling group had higher costs and utility than the group that did not gargle. The incremental cost and effectiveness for 60 days were 4750 yen and 0.43 quality-adjusted life days respectively. The gargling group required 8020 yen more for gargling, but saved 3270 yen by preventing URI for 60 days. This showed that the ICER of gargling was 4.07 million yen/QALYs (34,400 US$/QALYs). The acceptability curve showed 67.1% was less than 6 million yen/QALYs, and 88.7% less than 12 million yen/QALYs. CONCLUSION: Although it can prevent URI, gargling is more costly than not gargling because the cost of gargling exceeded the savings derived from URI prevention. However, the ICER of gargling was comparable with that of other widespread medical technologies.

**PIN20**

**PHARMAECONOMIC ANALYSIS OF SEVERE COMMUNITY-ACQUIRED PNEUMONIA TREATMENT**

Kulikov A, Krysanov I
Moscow, Medical Academy, Moscow, Russia

OBJECTIVES: Selection of the most cost-effective treatment regimen of severe community-acquired pneumonia. METHODS: Direct medical costs in the group of patients who received levofloxacin amounted to 16,097.99 rubles, and in the group of patients who were treated with ceftriaxone they totaled 32,573.47 rubles per patient. They were made up of levofloxacin and ceftriaxone antibacterial drug treatment costs and the costs of patients’ hospital stay. The cost of the drug treatment course amounted to 3,997.99 rubles for the first group (levofloxacin) and to 19,073.47 rubles for the second group (ceftriaxone); the cost of hospital stay amounted to 12,100 rubles and 13,500 rubles respectively. In the breakdown of expenditure on treatment of community-acquired pneumonia with levofloxacin, patients’ hospital stay accounted for 75% of expenses, whereas drug treatment accounted for only 25% thereof; when treating with ceftriaxone, the expenditure on patients’ hospital stay amounted to 40% and that on drug treatment—to 60%. The “lost opportunities” index equaled one and thus indicated that when using a more cost-effective drug (levofloxacin) for the treatment of one patient compared to a less cost-effective drug (ceftriaxone) it is possible to theoretically treat an additional patient, taking into account the difference in the costs of treatment with the drugs compared, provided the profile of antibiotic resistance is congruent with that under the conditions of the clinical study used herein. CONCLUSION: Antibacterial treatment of severe community-acquired pneumonia with levofloxacin is more cost-effective, enabling the reduction of costs by 16,475 rubles per patient compared to treatment with ceftriaxone owing to lower expenditure on drugs.

**PIN21**

**THE CLINICAL AND ECONOMIC BURDEN OF COMPLICATED SKIN AND SKIN STRUCTURE INFECTIONS DUE TO STAPHYLOCOCCUS AUREUS: FINDINGS FROM A NATIONAL DATABASE**

Marton JP1, Menzin J2, Sussman M3, Friedman M4, Philburn RT5, Rothermel CD1
1Pfizer Global Pharmaceuticals, Pfizer Inc, New York, NY, USA, 2Boston Health Economics, Inc, Waltham, MA, USA

OBJECTIVES: Complicated skin and skin structure infections (cSSIs) are a common complication among hospitalized patients. There are limited national data on the costs of cSSIs due to Staphylococcus aureus, a common hospital-acquired pathogen. METHODS: This retrospective cohort study used data from the 2004 Health care Cost and Utilization Project Nationwide Inpatient Sample (HCUP-NIS). Patients with S. aureus cSSIs were identified based on ICD-9-CM diagnosis codes and compared to patients with skin infections without skin infections. Excess mortality, length of stay (LOS), and costs were estimated for both groups. Multivariate models (with log transformation) were used to adjust costs for potential confounding factors, including age, gender, mortality, hospital region, and comorbidity. RESULTS: We identified 55,585 hospitalized patients with cSSIs due to S. aureus. The comparison cohort consisted of 7,618,776 patients without skin infections. The mortality rates were similar for the S. aureus cSSI and comparison cohorts (3.9% and 2.0%, respectively). For com-