ECONOMIC BURDEN OF COMMUNITY ACQUIRED PNEUMONIA IN OLDER ADULTS IN THE NEW EUROPEAN COUNTRIES OF THE CENTRAL EUROPE

OBJECTIVES: Older adults are in an increased risk of respiratory infections including community acquired pneumonia (CAP). The former socialist countries of the central Europe form a unique region with specific health care and epidemiology characteristics, and the local evidence on the underlying epidemiology is scarce. The objective was to estimate the economic burden of CAP in adults ≥50 years of age in the Czech Republic (CR), Slovakia (SK), Poland (PL) and Hungary (HU) using data from 2010. METHODS: The incidence of hospitalized CAP strafished by age group 65-69, 70-74, 75-84 and 85+ was obtained from national health administrative systems (PL, CR, SK) and insurance records (HU). The estimates of non-hospitalised CAP incidence was based on retrospective chart reviews (CZ, SK, PL) and the insurance fund records (HU). Direct costs from the payer’s perspective were based on resource use analyses (CR, SK), DRG lists (PL) and the insurance records (HU). RESULTS: The incidence of hospitalized CAP per 100,000 person years was: 456.6 (CR), 504.6 (SK), 363.9 (PL), and 845.3 (HU). Compared with adults 50-64 years of age, the incidence of hospitalised CAP were 2.3 fold higher in those 65-74, 5.2 fold higher in those 75-84 and 10.8 fold higher in those ≥85, manifesting an exponential trend. While the majority of CAP among adults 50-64 years of age was treated outpatient, the proportion of hospital CAP increased with increasing age. The total cost of CAP in adults over 50 was €12,579,543 (CR); 9,160,774 (SK); 22,409,085 (PL); and 18,258,449 (HU), with hospitalization representing over 90% of the direct costs of treatments in all 4 countries. Adults ≥85, who represent 4% of the combined population, account for 73% of the costs. CONCLUSIONS: The incidence and likelihood of hospitalisation drives the costs of CAP upwards with increasing age in the new central European countries.

APPLICATION OF PROBABILISTIC LINKAGE: COMPARE HEALTH CARE COSTS AMONG MENOPAUSAL WOMEN WITH DIFFERENT SYMPTOMS BY LINKING WOMEN’S REGISTRY AND CLAIMS DATABASE

OBJECTIVES: Menopause symptoms are a good disease severity proxy for menopausal women, but are not available in claims database. We applied probabilistic linkage to add symptoms recorded in a registry database to claims data, and compare the healthcare costs among women with various symptoms. METHODS: Women age 45 or older who used estrogen only hormone therapy (HT) were selected from a large US claims database (4/2005-9/30/2008). Another group who used estrogen only HT with a menopause diagnosis was selected from the University of Michigan Women’s Registry Database. Logistic regression was used to calculate the propensity score for each patient controlling for osteoporosis, gynecological disorders/procedures, genital infection, bladder/pelvic floor support problems, breast cancer, breast condition, hypertension, high blood pressure, osteoporosis, heart disease, depression, and blood clotting. Patients with the closest propensity score for each group were matched, and menopause symptoms for registry patients were added to the claims database records. After repeating probabilistic linkage 250 times, the 95% confidence interval (CI) of healthcare cost differences during the follow-up period were calculated. RESULTS: 80 patients from each population were matched after probabilistically linking 20,020 claims database patients with 83 registry database patients. The average cost of patients with at least one symptom was much higher than for patients without symptoms ($11,570 [95% CI: $10,600-$12,540] vs. $6,380 [95% CI: $5,430-$7,330], p-value <0.001). Cost differences were mainly from inpatient, physician visit, and pharmacy costs. Among patients with menopause symptoms, those with the highest charges had the highest costs ($10,127), followed by memory loss ($1,653), vaginal dryness ($864), reduced libido ($568), and mood swings ($585). CONCLUSIONS: Women with menopause symptoms incur higher healthcare costs than those without This study suggests symptoms are important determinants of healthcare expenses and their impact can be assessed by linking registry and claims databases.

EPIHEMICAL EFFECTIVENESS OF A NEW FIXED-DOSE COMBINATION OF DUTASTERIDE AND TAMSULOSIN FOR THE TREATMENT OF SYMPTOMATIC BENIGN PROSTATIC HYPERPLASIA IN QUEBEC, CANADA

OBJECTIVES: To conduct a cost-effectiveness analysis of a universal childhood vaccination program in Brazilian regions with different hepatitis A endemicity. METHODS: An age and time-dependent dynamic model was developed to estimate the incidence of hepatitis A for 24 years. The analysis was run separately, according to the pattern of regional endemicity, one for Southern + Southeast (low endemicity) and one for the North + Northeast + Midwest (intermediate endemicity). The decision analysis model compared universal childhood vaccination current with payment of vaccinating high risk individuals. Epidemiologic and cost estimates were based on data retrieved from a nationwide seroepidemiological survey for viral hepatitis, primary data collection, National Health Information Systems and literature. The analysis was conducted from the healthcare system and societal perspectives. Costs are expressed in 2008 Brazilian reals. RESULTS: In this model a universal national immunization program would have a significant impact on disease epidemiology in all regions, resulting in 64% reduction in the number of cases of hepatitis A, 62% decrease of life years lost, in a national perspective. With a vaccine price per dose of $165.89 (US$72.3), vaccination against hepatitis A was a cost-saving strategy in the low and intermediate endemicity regions and in Brazil as a whole from healthcare and society perspective. Results were most sensitive to hepatic incidence, ambulatory cases and vaccine costs. CONCLUSIONS: Universal childhood vaccination program against hepatitis A could be a cost-saving strategy in all regions of Brazil. These results may be useful for the Brazilian government for vaccine related decisions and for monitoring population impact if the vaccine is included in the National Immunization Program.