

structure of direct costs in Russia was as follows – 77% for hospital stays, 21% for outpatient visits, 2% for ambulance service. COPD exacerbations contributed the major portion of cost and also correlated with disease severity. **CONCLUSIONS:** COPD associated with significant economic burden on Russian's health care system. There is a striking direct relationship between the cost of care and severity of the disease with hospitalization leading to disease exacerbation being a major portion of cost.

## PRS34

## THE COSTS OF ILLNESS OF ATOPIC DERMATITIS IN SOUTH KOREA

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**OBJECTIVES:** Atopic dermatitis is a global public health concern considering its growing prevalence and mounting socioeconomic burden. However, few studies have assessed the economic impact of atopic dermatitis in Korea. To conduct a cost analysis of atopic dermatitis and evaluate the economic impact of the disease on individual annual disease burden, quality of life, and change in medical expenses in regards to change in health related quality of life. **METHODS:** This prospective cost analysis of atopic dermatitis by reviewing the housekeeping account books of 32 patients was conducted and evaluated the economic impact of the disease by analyzing the completed questionnaires. To handle the potential uncertainties, we compared the results with the data released by the Health Insurance Review & Assessment Board on medical costs claimed by the health care facilities. **RESULTS:** In regards to the cost of illness, direct cost of atopic dermatitis per patient during the 3 month study period was 541,280 KRW and expenditure on other atopic dermatitis related products was 120,313 KRW. Extrapolated annual direct cost (including expenditures on other atopic dermatitis related product) per patient was 2,646,372 KRW. Estimated annual indirect cost was 1,507,068 KRW. Annual cost of illness of atopic dermatitis, computed by adding up direct and indirect costs, was estimated to be 4,153,440 KRW. **CONCLUSIONS:** The annual total social cost on a national level was estimated at 5.8000 trillion KRW.

## PRS35

## THE COST STUDY OF HEALTH SERVICES IN MONGOLIA

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**OBJECTIVES:** There are three main funding sources of health system in Mongolia which are state budget, health insurance and out of pocket payment. Health insurance funded health care service based on 115 DRG and total financing to health care organizations were 87.1 billion MNT in 2011. Health insurance rates 240000 MNT secondary and thirtry level of hospital by the same tariff. Aim of the study is to calculate 10 DRG costs which were spent 25 percent of the health insurance fund in 2012. **METHODS:** We used both top down and bottom-up cost allocation method. Secondary data were used. **RESULTS:** Respiratory diseases finance is 9 percent higher than the real cost. Other 9 diagnostic groups finance were less than actual cost by 8-62%. That the total funding based on the number of cases nationwide, 12,032,906,381 MNT funding was insufficient. **CONCLUSIONS:** Health insurance base tariff have to change based on the study while base rates should be different at secondary and thirtry level of health care organization.

## PRS36

## A PHARMACOECONOMIC CARE ANALYSIS OF TUBERCULOSIS CONTROL IN PAKISTAN

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**OBJECTIVES:** To assess the direct and indirect medical costs incurred in the treatment of tuberculosis (TB) in patients attending public hospitals in Pakistan. **METHODS:** A descriptive cross-sectional study was conducted in patients attending Accident and Emergency and TB wards of the hospitals in Pakistan by convenient-sampling technique. The direct and indirect medical costs were determined by various parameters like consultation fees, cost of medicines, travelling costs and laboratory test expenses etc. All obtained data were analyzed using descriptive and inferential statistics. **RESULTS:** The mean annual direct medical cost for a TB patient was around Rs. 17317.56 (US\$ 176.26) and indirect medical cost was Rs. 12918.50 (US\$ 131.48). It was also observed that comparatively higher direct and indirect medical costs per patient ( $p < 0.001$ ) were associated with large and urban hospitals. Besides, association of indirect medical costs with gender and age were the persuasive predictors of the study. **CONCLUSIONS:** Severity of the disease, distance to the hospital and length of stay in the hospital were proportional to the direct and indirect medical costs. In Pakistan, a significant proportion of the direct medical cost for TB treatment is subsidized for the public.

## PRS37

## PHARMACOECONOMIC EVALUATION OF ACUTE EXACERBATION OF ASTHMA IN PATIENTS IN MALAYSIA

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**OBJECTIVES:** The cost of acute exacerbations of asthma had not been well studied in literature. The aim of this study was to identify and quantify the (average) cost of moderate and severe exacerbations of asthma in patients attending tertiary-care setup in Malaysia. The related burden of exacerbations was also cal-

culated. **METHODS:** The costs including lab investigation charges, unit costs of treatment per bed, medication charges, food costs, transportation costs and loss of productivity were calculated per asthma episode. Data was analysed by Statistical Package for the Social Sciences (SPSS) version 18.0 using various descriptive and inferential statistical tests. **RESULTS:** A median medical cost of acute exacerbation of asthma under Ministry of Health's (MOH) perspective was USD 105.00 (RM338.47) per episode. Medication cost comprised the majority (52.38%) of the total medical costs. A median medical cost of acute exacerbation of asthma under patient's perspective was USD 1.55 (RM4.99) per episode. **CONCLUSIONS:** Asthma exacerbation and length of stay in the hospital were proportional to the direct medical costs. In Malaysia, a substantial proportion of the direct medical cost of asthma treatment is heavily subsidised for the locals.

## PRS38

## PHARMACOECONOMIC EVALUATION AND BURDEN OF ILLNESS OF ACUTE EXACERBATION OF COPD IN PATIENTS IN MALAYSIA

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**OBJECTIVES:** Acute exacerbation of chronic obstructive pulmonary disease (AECOPD) appears to be the main reason of hospitalization in COPD patients. Since substantial economic burden of COPD have not been previously studied in Malaysia, this study aimed at estimating and identifying different costs and related burden of illness in patients receiving treatment of AECOPD in a tertiary care hospital in Malaysia. **METHODS:** A prospective follow-up study was performed in Department of Accident and Emergency and Respiratory Medicine of the hospital. Data were derived on the basis of per exacerbation episode. Relationship between direct medical costs and disease severity was analyzed using various descriptive and inferential statistical approaches. **RESULTS:** Median actual direct medical costs and out-of-pocket costs were RM 457.68 (US\$ 141.97) and RM 28.25 (US\$ 8.76) per exacerbation respectively. Drug cost (41%) was the leading cost driver, followed by unit cost of treatment per bed (33.6%) and lab investigation cost (25.4%). However, food cost (44.2%) represented the largest proportion in out-of-pocket costs. More than 90% of actual direct medical costs were supported by the Government of Malaysia in the patients studied. **CONCLUSIONS:** Impacts of AECOPD in health care resources are worthy of attention. Cost information from pharmaco-economic studies is important in decision making for health care professionals and policy makers in order to improve health care outcome and minimize costs.

## PRS39

## PROSPECTIVE STUDY ON THE AVERAGE COST OF THERAPY FOR BRONCHIAL ASTHMA PATIENTS IN AN INDIAN TERTIARY CARE TEACHING HOSPITAL

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**OBJECTIVES:** To conduct a study to determine the average cost of therapy for bronchial asthma patients in a tertiary care center. **METHODS:** A prospective observational study was carried out on a 100 bronchial asthma patients after ethical clearance was obtained from an Independent Ethical Review (IEC) board. The patients selected for the study were in-patients admitted to the Medicine and Pulmonary wards for bronchial asthma related complaints with and without co-morbidities. The study assessed the average cost of therapy which was obtained from patient records. Statistical analysis was performed using SPSS version 20. **RESULTS:** The mean age of the study population (N=100) was 53.30±14.59. Females constituted 61% of the study population. The job profiles of the majority of study population were house wives (53%) and agriculturist (15%). The average cost of therapy among 100 patients was found to range from \$1.81 to \$598. The impact on the length of stay on cost of therapy per day was classified into <5, 6-10, 11-21 days and cost was found to be \$9.21 ± 5.57, \$12.12 ± 9.65 and \$15.56 ± 10.36 respectively. Impact of co-morbidities (35%) and without co-morbidities on cost of therapy per day was found to be \$13.03 ± 10.63 and \$8.54 ± 6.77 respectively. **CONCLUSIONS:** Asthma creates a substantial financial burden on the society and results in compromise on diagnosis and treatment mainly in a developing country like India. There was a substantial increase in the cost of therapy as the duration of hospital stay increased and also in the case of patients with co-morbidities. Pharmaco-economic analysis is needed to develop strategies to reduce the cost of therapy and thereby achieve greater medication adherence and improved quality of life in asthma patients.

## PRS40

## RESOURCE USE AND HEALTH CARE COSTS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN SLOVAKIA

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**OBJECTIVES:** The objective of this cost study was to measure the resource utilization and the direct costs associated with health care management of patients with chronic obstructive pulmonary disease (COPD) in Slovakia and to provide a basis for cost-effectiveness evaluations. **METHODS:** The cross-sectional survey was performed to obtain the information on the management of patients with COPD and to estimate the direct costs of the disease management. The survey included 4 experts experienced in COPD treatment. The studied population were cohorts of COPD patients evaluated separately according to the stage of the disease (mild, moderate, severe and very severe). The patients were treated with standard therapy, the cost were set for one average patient per 3 months of treatment. The cost data were assessed and actualized due the 1st July 2014. All types of health care used in COPD management were evaluated (hospitalization, outpatient visits, diagnostics, laboratory tests and the management of symptoms, use of bronchodilators). Moderate