conducted based on the perspective of healthcare payers; therefore, only medical direct cost was measured. The cost of medical services was derived from the price-list of relevant medical services and drugs, registered by Ministry of Health in Vietnam 2012. RESULTS: The average direct cost of CRC for one patient accounted for nearly 766.83 million VND per year. Cost for one patient increased with the increasing of disease severity and accounted for 1.875 million VND, 800 million VND, 222 million VND and 1,351 million VND in stage I, II, III, IV, respectively. In the structure of cost, with the increase in severity of disease, the percentage of drug cost increased and the percentage of medical services decreased. CONCLUSIONS: The cost of CRC treatment increased following the increase of disease severity. The huge economic impact of CRC should be controlled and considered to conduct the proper healthcare policies.

P4S39
DIRECT MEDICAL COSTS ASSOCIATED WITH CLINICAL AND HEALTH CHARACTERISTICS OF VISIONALLY IMPAIRED INDIVIDUALS IN SINGAPORE

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OBJECTIVES: To examine the association of direct medical costs with clinical and health characteristics in visually impaired individuals in Singapore. METHODS: We prospectively recruited 500 visually impaired individuals due to cataract, glaucoma, diabetic retinopathy (DR), or age-related macular degeneration (AMD) from Singapore National Eye Centre. In face-to-face interviews, vision function and health status of the individuals were assessed using the 14-item Visual Functioning (VF-14) and Brief Health Status (BHS), respectively. Severity of visual impairment (VI) and direct medical costs were determined using clinical and billing data, respectively, in the study center. Annual medical costs per capita were estimated and compared for individuals with different eye diseases and in different levels of VI, vision function, and health status using generalized linear models. RESULTS: The mean (standard deviation [SD]) age of participants was 71.6 (9.8) years old. The proportion of male individuals was 55.2%. The mean (SD) VI scores were 66.2 (8.76) for moderate VI, 56.6 (10.26) for severe VI, 58.1 (8.2), vision function (between absence and presence of problems: $83.7K), and health status (between absence and presence of problems: $81.3K). CONCLUSIONS: Direct medical costs are highest in AMD individuals and are associated with clinical measure and vision function in visually impaired individuals in Singapore.

P4S40
ECONOMIC BURDEN OF VACCINE-PREVENTABLE DISEASES AMONG THE ELDERLY IN TAIWAN

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OBJECTIVES: Vaccination against influenza, pneumococcal disease and herpes zoster are recommended for the elderly, who have high morbidity and mortality rates due to the high prevalence of vaccine preventable diseases (VPIs). However, empirical data on the total economic burden of adult vaccine-preventable diseases is scarce. This study examines the healthcare resource utilization (inpatient, outpatient, and emergency department (ED) visits) and associated medical expenditures. RESULTS: In 2010, there were 6.77% 18% and 1.88% of elderly population had been diagnosed and received ambulatory care for pneumonia, flu and herpes zoster, respectively. However, on average, patients with pneumonia, flu, herpes zoster visited the doctor’s office 36.9, 37.3, 38.5 times (without those diseases: 26.7 times), respectively. The healthcare resource utilization from patients with vaccine-preventable diseases attributed to large proportion of medical expenditures. Among annual medical expenditures for the elderly ($560.2 billion), 13.08% of expenditures came from pneumonia care, 3.10% from flu and 2.3% from herpes zoster. Average cost per patient was US$33.6 thousand, US$1.8 thousand and US$ 2.5 thousand for pneumonia, flu and herpes zoster, respectively. CONCLUSIONS: This study demonstrates significant burden of health resource utilization caused by elderly people with vaccine-preventable diseases. In addition, different management strategies may be warranted for different vaccine-preventable diseases since the differences of patient characteristics as suggested by our study.

P4S41
DIRECT COSTS OF HEALTH CARE FOR BREAST CANCER, THE CASE OF A HEALTH MANAGEMENT ORGANIZATION IN SINGAPORE

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Breast cancer (BC) is one of leading causes of death in women and is also considered a catastrophic illness associated with a large financial burden on the health system with incremental trend. OBJECTIVES: To estimate the direct costs associated with the healthcare of patients with BC affiliated with a health maintenance organization (HMO) in Colombia during the period 2010-2014. METHODS: A retrospective cross-sectional study was conducted in a cohort of 1314 patients with BC affiliated with a HMO in Colombia and distributed in 16 cities of the country. In the period 2010 to 2014 Demographic characteristics of the cohort are described and the average age annual costs were estimated by health service and patient. Costs were adjusted at 2014 dollars. RESULTS: The average cost of medical services covered from the price-list of relevant medical services and drugs, registered by Ministry of Health in Colombia 2012. RESULTS: The average direct cost of CRC for one patient accounted for nearly 766.83 million VND per year. Cost for one patient increased with the increasing of disease severity and accounted for 1.875 million VND, 800 million VND, 222 million VND and 1,351 million VND in stage I, II, III, IV, respectively. In the structure of cost, with the increase in severity of disease, the percentage of drug cost increased and the percentage of medical services decreased. CONCLUSIONS: The cost of CRC treatment increased following the increase of disease severity. The huge economic impact of CRC should be controlled and considered to conduct the proper healthcare policies.

P4S42
CLINICAL AND ECONOMIC ANALYSIS OF SIMPLE CONTACT DERMATITIS DUE TO URINARY INCONTINENCE AND PRESSURE ULCERS OF IMMOBILIZED PATIENTS WITH URINARY INCONTINENCE

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OBJECTIVES: Simple contact dermatitis (CD) and pressure ulcers (PU) of immobilized patients with urinary incontinence is an important and not enough explored clinical and economic problem in hospitals and social care organizations. METHODS: An observational clinical and economic study of a typical practice of CD and PU in the study taken forms of 85 patients, analyzed in 7 critical points each. Patients had a higher risk of CD and PU. The average age - 76 ± 5.6 years. RESULTS: Patients without CD and PU ($7,130.43 ± $350.95) PU, $7,196.42 (2012), $5,910.49 (2013) and $5,214.47 (2014). CONCLUSIONS: The average annual cost per patient with CD in an insured population in Colombia is equivalent to the annual premium per capita of 17 patients by 2014. A 1% average decrease in cost per patient of 38% was found during the follow.

P4S43
ECONOMIC BURDEN OF COLORECTAL CANCER IN VIETNAM: FROM HEALTHCARE PAYERS’ PERSPECTIVE

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OBJECTIVES: Colorectal cancer (CRC) is considered as the third common cancer among men and the second common cancer among women worldwide in Vietnam. Colorectal cancer is the fifth common cause of cancer-related incidence. In many countries, economic burden of colorectal cancer has been investigated logically. However, we have not had any research about this in Vietnam. This research was conducted to provide more detailed information to help the decision-makers find out the most appropriated policies to control the disease. METHODS: The economic burden of CRC in Vietnam was evaluated by the following formula: C = Pi x COIi., in which C: economic burden of CRC in Vietnam; Pi: number of patients in stage i of CRC; COIi: cost of CRC stage i. RESULTS: The 5-year prevalence of CRC is 27.3%. The economic burden of CRC in the whole society was estimated about 143.5 billion VND. The values fluctuated sharply from stage I to stage IV, accounted for 6.9 billion VND; 5731.2 billion VND, 3,564.5 billion VND and 4,965.7 billion VND, respectively. As lots of patients were diagnosed at stage II (about 38%), the economic burden of this stage was predominant (40%) compared to the others. Furthermore, in all stages except stage I, the economic burden related to medicine was much more higher than that of medical services. CONCLUSIONS: The high economic burden of CRC should be considered to conduct relevant healthcare policies, especially for patients in advanced stages. KEY WORD: economic burden, colorectal cancer.

P4S44
MEDICAL CARE COSTS OF CHIKUNGUNYA VIRUS INFECTION IN A POPULATIONAL STUDY IN COLOMBIA


OBJECTIVES: To analyze the economic burden of Chikungunya virus infection in Colombia. METHODS: A retrospective medical record review of all children with suspect of CHKV attended at a reference pediatric Hospital in Cartagena, Colombia in 2014 September – November. In 2014 September Colombia reported the first local circulation of chikungunya virus (CHKV) in the region. In 2013 December, PAHO confirmed the local circulation of chikungunya virus in the Caribbean region. In 2014 September, Colombia, 3Hospital Infatil Napoleón Franco Pareja, Cartagena., Colombia

RESULTS: The frequency of PU is 58.8%, KD - 41.1%, and KD - 22.4%. Without CD and PU - 22.4%. Total costs are the biggest in group of patients with PU and CD in stage IV, followed by the high costs of services and care products. Drug costs are not high. A high cost in the CD group is associated with services and care. The data will be used to construct a Markov model.