

yet been fully met in Belgium. Despite the success of the policy, adjustments are desirable, especially with respect to the broad definition of cheap medicines. Given the fact that all groups of physicians reached their minimum quota quite easily together with the increased possibility of prescribing cheap medicines due to the entrance of new, generic medicines, the government decided to raise the minimum criteria in 2011.

PHP81

FUNDING SOURCES ANALYSIS RESULTS (REGIONAL AND FEDERAL LEVELS) OF PHARMACEUTICAL MARKETS PER REGIONS OF RUSSIAN FEDERATION

Borisov D¹, Pechenkin A²

¹Laboratory of Pharmacoeconomics and outcomes research, First MGUM named after I. M. Sechenov, Moscow, Moscow, Russia, ²Non-Commercial partnership, Moscow, Moscow, Russia

OBJECTIVES: To analyze state funding sources of drug provision all over RF for the period of 2009-2010. **METHODS:** Different sources of drug funds were summed up during this research. All materials were taken from the open sources: results of auctions of the federal and regional level, orders of the Ministry of Public Health and Social Development, analysis of regional programs of the drug provision and etc. **RESULTS:** Interactive map of the RF was developed due to this analysis of the collected data, it shows information on each region of the RF, the number of privileged people, population of the region, sum of the budget by the ONLS (reimbursement) programs, the sum of the budget according to the regional reimbursement, sum of the hospital budgets, sum of the special programs of the region (if such programs approved in the region), sum of the budget by the program "7 nosologies" (special reimbursement program), with the detailed separation of the budget according to the nosologies. Such map clearly demonstrates difference in the funding system between regions. The ranges of color distinction by regions were put into the map for more convenient usage, it allows visually demonstrate difference in funding on the territory of the RF. Several pilot regions of the RF were chosen where data was validated, this process showed complete conformity of the existing data with the official budgets of the regions. **CONCLUSIONS:** Nowadays this research represents unique product in acceptance of administrative decisions for the administrators of health sector of the RF. Also for the further improvement of the given analytical system it is necessary to adjust the collecting of the corresponding data for 2011 and to analyze the budget of regions on the Federal Health Modernization Program 2011-2012.

PHP82

A STUDY EXPLORATING THE GENERAL PUBLIC PERCEPTIONS TOWARDS MEDICINES

Alhaddad MS¹, Hassali MA², Maghrabi I³

¹Taif University, Taif, Saudi Arabia, ²Universiti Sains Malaysia, Penang, Malaysia, ³Taif University, Taif, Saudi Arabia

OBJECTIVES: General public perceptions will affect on their behavior towards medicines. Therefore, this study aims to evaluate the general public perceptions towards medicines in the state of Penang Malaysia. **METHODS:** A cross sectional study using convenience sampling technique was used. Appropriate descriptive and inferential statistics were used to find the differences among the respondents. All data were analyzed at alpha value of 0.05. **RESULTS:** Seven hundred respondents were successfully responded to the survey. More than one third of the respondents 37% stated that they understand what is meant by conventional medicines, whereas 18.6% understand traditional medicines and only 3% understand what is meant by generic medicines. On the other hand, 36% see doctor once they have minor illness and 30% prefer to go to get OTC drugs from the community pharmacy. Furthermore, 62% believe that more expensive drugs are of better quality, and more than 50% believe that advertising affect on their perceived quality of medicines as well as the country of the manufacturer affects on their selection of the drugs. Previous experience, physician's recommendations, pharmacist's recommendations, friend's recommendations, cost of the medicine and medical insurance coverage were the main factors that affect on their perceptions. **CONCLUSIONS:** General public in Penang are very concerning about the medicine chosen. General public education on various types of medicines is important to correct misconceptions and give them the knowledge that they need to make an informed decision. Hence, physicians, pharmacists and other health care providers play vital roles in educating the general public about medicines.

PHP83

THE ECONOMIC BURDEN OF DISEASE RELATED MALNUTRITION IN EUROPE

Kalo Z¹, Inotai A², Nuijten M³

¹Eötvös Loránd University, Budapest, Hungary, ²Syreon Research Institute, Budapest, Hungary, ³Ars Accessus Medica/Erasmus University Rotterdam, Jisp, The Netherlands

OBJECTIVES: Disease related malnutrition (DRM) is a frequent but often unrecognized problem, even in the developed world. The objective of this study was to estimate the burden of disease related malnutrition (BoDRM) in Europe. **METHODS:** An Excel model was developed to estimate direct incremental health care costs and health burden (including increased mortality and reduced quality of life) due to DRM. The monetary value of the health burden was calculated by multiplying the QALY loss with explicit or implicit (2x GDP/capita) cost effectiveness thresholds in each country. Collection of input variables involved a wide spectrum of current data sources: international databases, PubMed, congress abstracts, references from published papers. Ten primary diseases were incorporated into the model: stroke, breast cancer, COPD, dementia, depression, colorectal cancer, musculoskeletal disorders, head and neck cancer, coronary heart disease, chronic pancreatitis. **RESULTS:** For the 835 million European citizens, the direct financial BoDRM is over 31 billion EUR annually. The estimated annual health burden is

approximately 5.7 million life years or 9.1 million QALYs. The total monetary value of the health and financial BoDRM is 306 billion EUR. The health burden in chronic diseases is greater than in acute diseases, and is also greater than the financial burden. In acute diseases, the financial burden is greater than the health burden. **CONCLUSIONS:** In Europe, DRM is a considerable health and financial burden and represents a considerable contribution to the total burden of disease, estimated by WHO to be 255 million DALYs annually. Therefore, there is a need to improve nutritional care in all aspects of patient management. The availability of scientific data on DRM is limited, especially regarding the relative mortality risk and quality of life impact. Policy makers should support programmes to extend the clinical and economic evidence base for nutritional care.

PHP84

ASSESSING PRODUCTIVITY AND ACTIVITY IMPAIRMENT DUE TO ILLNESS IN POLAND: EMPLOYEES VERSUS EMPLOYERS VIEW

Wrona W¹, Hermanowski T², Jakubczyk M¹

¹Department of Pharmacoeconomic, Medical University of Warsaw, Warsaw, Poland, ²Grant Leader, Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland

OBJECTIVES: The inclusion of lost productivity costs in pharmacoeconomic studies is still a subject of considerable debate. The aim of this study was to quantify the work impairment due to general health status in population of employees and employers (i.e. owners and managers). **METHODS:** Data were obtained from a survey that incorporated the WPAI-GH questionnaire and questions on costs of worker replacement (including hiring and training process). The survey was conducted in cooperation with Employers of Poland – the largest and oldest organisation of employers in Poland in the framework of research grant no N N405 115034 offered by the Ministry of Science and Higher Education of the Republic of Poland. **RESULTS:** The non-representative population comprised 196 subjects in paid jobs (156 employees and 40 employers), 167 of whom were currently employed in government-owned corporations (with 250+ employees). Employees reported 7.4% of work time missed due to health problems (absenteeism) during the past 7 days (0.8% for employers; p=0.052). Impairment while being at work (presenteeism) amounted to 12.2% of total time for employers (5.4% for employees; p<0.05). Percentage of overall work impairment due to health problems for employees and employers were 5.7% vs. 18.3%, respectively (p<0.05). On average more than 50% of overall work impairment was compensated by other employees in the company with a general tendency of a higher compensation of employees' responsibilities. Mean time of hiring and training new worker to achieve 50% of expected productivity was 76 days and 216 days to achieve full productivity. **CONCLUSIONS:** Productivity loss measured by WPAI-GH is higher among employees than employers in analyzed sample in Poland, with a tendency of a higher compensation among employees. Preliminary data suggest that overall work impairment can be completely compensated within a one year from a single employer perspective and support friction cost approach.

PHP85

A SYSTEMATIC REVIEW OF AUTOMATED DOSE DISPENSING IN PRIMARY HEALTH CARE

Sinimäki J¹, Sihvo S², Isojärvi J², Blom M¹, Airaksinen M¹, Mäntylä A³

¹University of Helsinki, Helsinki, Finland, ²National Institute for Health and Welfare, Helsinki, Finland, ³Finnish Medicines Agency, Kuopio, Finland

OBJECTIVES: An automated dose dispensing (ADD) service is implemented in primary health care in some countries, particularly in the Nordic countries. In this service, regularly used medicines are machine-packed into unit-dose bags for each point of administration. The aim of this study is to review the evidence of the ADD's influence on the appropriateness of medication use, medication safety and costs in the primary health care. **METHODS:** A literature search was performed on the most relevant databases, including the Medline, Embase, and Cochrane Library. An article was included in the review if the study was conducted in primary health care or nursing home settings and medicines were dispensed in unit-dose bags. All study designs were approved and control groups were not required. Studies applying outcome measures that were related to the appropriateness of medication use, medication safety or costs were included. **RESULTS:** Out of 278 abstracts, six studies were found to be acceptable. The prevalences of potential inappropriate drug use (IDU) were higher among ADD users than non-ADD users. After controlling for confounding factors, ADD reduced the probability of long-acting benzodiazepine use among women and drug-drug interactions among women and men. The ADD users aged ≥65-79 years had more problems with potential IDU than older ones (≥80 years). The risk of administration errors was lower if medicines were supplied by the ADD service. The ADD service also reduced discrepancies in the documentation of patient medication records. Any costs were not investigated in the studies. **CONCLUSIONS:** The evidence of the influence of ADD on appropriateness of medication use and medication safety is limited, and missing on costs. The findings of this review suggest that the ADD service may improve medication safety in primary health care, but does not effectively reduce potential IDU.

PHP86

INCORPORATING THE PATIENT PERSPECTIVE INTO THE HEALTH CARE PROCESS: EXPERIENCE FROM THE C.A.T. HEALTH SYSTEM

Rebollo P¹, Castejón N¹, Cuervo J¹, Igarreta M², Ortega F³

¹BAP Health Outcomes Research, Oviedo, Spain, ²SaluMetrics S.A., Oviedo, Spain, ³Hospital Universitario Central de Asturias, Oviedo, Spain

OBJECTIVES: To evaluate the feasibility of the C.A.T-Health system (a computerized adaptive test which evaluates generic Health-Related Quality of Life-HRQoL) in a university hospital, at different levels of the health care process. **METHODS:** The C.A.T-Health system has been developed and validated within a 3 years research