

maceutical health care standards and outcomes. Without close monitoring of key health care indicators and outcomes, volume (prescription) limitations introduced by the recent Healthcare Reform can have adverse and inevitable long term impact.

#### PHP49

##### THE PHARMACIST'S PERCEPTION OF THE SPLITTING EXTENDED RELEASE AND ENTERIC-COATED FORMULATION DRUGS

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**OBJECTIVES:** Extended release and enteric coated formulations make up 7.8% of all drugs, and the most frequently used drug is an agent affecting circulatory, digestive system. The objective of this study is to analyze of extended release and enteric coated drugs on pharmaceutical reimbursement item list in Korea and evaluate the dispensing of extended release and enteric coated drugs, which is enforced by the National Health Insurance. **METHODS:** The analysis used a questionnaires survey for 169 pharmacists in the hospital pharmacy and community pharmacy (Response rate: 73.8%). The questions include; prescribing change after enforcement by National Health Insurance, prescription correction, change of pharmacy works, expansion of the range of enforcement, provision of information and prescribing error prevention. The statistics methods use Chi-square, AVOVA, t-test, McNemar test by STATA/SE10. ( $p < 0.05$ ). **RESULTS:** Of extended release and enteric coated formulations, 33.9% were not available in other dosage forms. After enforcement by National Health Insurance, the rate of splitting and crushing of extended release and enteric coated drugs decreased, but pharmacies in tertiary care hospitals had increased workload because of prescription corrections. Prescription was not changed, because patients take medicines for a long time. Most of pharmacists agreed on the expansion of drug range, but 65.7% of pharmacists wanted the enforcement only for hospitals. When pharmacists corrected their prescribing error, the biggest problem was a lack of other dosage forms. To prevent extended release and enteric coated from splitting and crushing, pharmacists want in the following ways; prescribing code prohibits into order computer system, warnings and alerts on prescribing, developing many other dosage forms. **CONCLUSIONS:** What is needed are medication-use system improvements and the creation of lists with suggestions for alternative products on the formulary. Also, pharmaceutical companies should make an effort to develop other dosage forms.

#### PHP50

##### IRRATIONAL USE OF INJECTABLE FORM OF DEXAMETHASONE: A WARNING FOR HEALTH SYSTEM IN IRAN

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**OBJECTIVES:** Irrational prescribing of injections is widespread in Iran. According to statistics of National Committee of Rational Drug Use (NCRUD), based on data from insured prescriptions, more than 40% of prescriptions have at least one injection in which injectable dosage form of dexamethasone is on the top of list. The aim of this study is to describe the prescribing pattern of dexamethasone in general practitioners' prescriptions from 2006 to 2009. **METHODS:** A retrospective cross-sectional study was done on insured prescription during 4 years. All insured prescriptions which were collected in special software called Rx Analyst during the study period in the NCRUD were reviewed for prescriptions included injectable dosage form of dexamethasone. **RESULTS:** A total of 150,630,381 Prescriptions were reviewed in which 73,808,887 were detected to be included at least one injection. Among prescriptions with injections, there were more than 30 percent of prescriptions which had at least one injection form of dexamethasone making it the first prescribed medicine by general practitioner. An overall increasing linear trend in prescribing pattern of injectable dosage form of dexamethasone was evident over the observation period. The percent of general practitioners' prescriptions which had injectable dosage form of dexamethasone is 15.46 in 2006, 15.93 in 2007, 16.64 in 2008 and 16.94 in 2009. **CONCLUSIONS:** Irrational prescribing pattern of dexamethasone injection is obviously determined according to the results of this study. It seems that general practitioners are trying to substitute pain relievers' drugs by injectable dosage form of dexamethasone. A multi-interventional policy is needed to correct the pattern use of dexamethasone.

#### PHP51

##### PILL BURDEN IN SOUTH AFRICAN PATIENTS WITH MULTIPLE RISK FACTORS FOR METABOLIC SYNDROME

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**OBJECTIVES:** Metabolic syndrome is a cluster of several common metabolic disturbances, including inter alia hypertension, hyperglycaemia and dyslipidaemia. Each of these risk factors requires multiple agents to reach desired therapeutic goals. The aim was to determine the average pill burden level in patients treated concurrently with antidiabetic, antihypertensive- and lipid-lowering agents. **METHODS:** A retrospective, quantitative drug utilization review was conducted utilizing national medicine claims data obtained from a South African Pharmaceutical Benefit Management company for the period of January 1, 2008 to December 31, 2008. Average pill burden (AvPB) was calculated as the average number of tablets received per prescription over the study period divided by the number of days medication was supplied for. Combination products were counted once. As-needed-medication and other chronic medication were excluded from the analysis. Data for 17 866 patients were analysed using the SAS for Windows 9.1® programme. **RESULTS:** Patients had an overall AvPB of  $2.7 \pm 1.20$  per prescription, with a rate of  $2.8 \pm 1.21$  among males ( $n = 9 632$ ) vs.  $2.6 \pm 1.18$  for females ( $n = 8 234$ ). Patients aged 0-15 years ( $n = 2$ ) had an AvPB of  $1.2 \pm 0.30$  per prescription, vs.  $2.3 \pm 1.49$  for those

aged 16-30 years ( $n = 53$ ),  $2.6 \pm 1.11$  for those 31-45 years ( $n = 992$ ),  $2.8 \pm 1.18$  for those 46-60 years ( $n = 5 768$ ),  $2.8 \pm 1.23$  for those 61-75 years ( $n = 7 641$ ) and  $2.5 \pm 1.17$  for those older than 75 years ( $n = 3 410$ ). **CONCLUSIONS:** Metabolic syndrome patients are prescribed multiple drug therapies. Our results show that the average pill burden among private health care South African patients receiving antidiabetic-, antihypertensive- and lipid-lowering agents concurrently were the highest among men, and increased progressively with age to peak in those aged 61-75 years. Further studies are necessary to determine the influence of pill burden on adherence, drug interactions and treatment cost.

#### Health Care Use & Policy Studies – Equity And Access

#### PHP52

##### INEQUALITIES IN THE UTILIZATION OF HOME HOSPICE SERVICES IN HUNGARY

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**OBJECTIVES:** Hospice service appeared in 1991, when Hungarian Hospice Foundation was established. More and more hospice institutions were started their works in this period, which type was home care, palliative hospital ward and complex, which provides both of them. In our study we are analyzing the spatial distribution of Hungarian hospice service. **METHODS:** In 2008, number and activities of hospice service was examined and we have been drawn attention for financial data by our survey with data of National Health Insurance Fund and Central Statistics Office. We analyzed the county and regional distribution of hospice services. **RESULTS:** Thirty hospice care providers were reimbursed by the National Health Insurance Fund Administration in 2008. The total number of nursing days were 53,113 in Hungary. The number of nursing days per 10,000 populations showed a significant difference across the regions with a national average of 52.88 days: Western Transdanubian Region (86.64), Northern-Hungarian Region (83.84), Southern-Transdanubian Region (81.28), Southern Great-Plain Region (77.31), Central-Transdanubian Region (59.62), Central Hungarian Region (32.23) and Northern Great-Plan Region (1.68). At county level we found similar within country differences with the highest value in Nógrád county (190.83 days/per 10,000 population) and the lowest in county Jász-Nagykun-Szolnok and Fejér ( $< 7$  days/per 10,000 population). **CONCLUSIONS:** The regional differences in hospice care are high among Hungarian regions and counties. A further analysis is required to explore the reasons behind these huge differences.

#### PHP53

##### ASSESSMENT OF THE ATTITUDES OF THE GENERAL PUBLIC TOWARDS SUPPLEMENTARY CRITERIA TO BE USED IN P&R DECISION MAKING PROCESS IN POLAND

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**OBJECTIVES:** To explore the attitudes of the general public towards the principle of QALY maximization in pricing and reimbursement decision-making process in Poland. **METHODS:** Cross sectional survey of a random representative sample of 1000 residents was preformed. Face-to-face interviews were conducted using a structured questionnaire. The final format of the questionnaire included refinements based on a pilot survey. Respondents rated statements concerning attitudes to equity on a Likert scale. Two hypothetical experiments were designed to elicit preferences for QALY maximization. In the first experiment, responders had to allocate a given limited budget to 400 patients with non-fatal disease, 100 patients with fatal disease, or a combination of patients with fatal and non-fatal disease. The QALY gain per patient was assumed the same for both groups. In the second experiment, responders prioritized a given treatment to either 100 patients with eight years or 100 patients with two years of baseline life expectancy. The survival gain per patient resulting from the new treatment was eight years for first group and varied from two to eight years for the second group. **RESULTS:** The study indicated strong support for the statements about equity (42% agreed and 44% strongly agreed). In the first experiment, 75% chose to allocate budget to both groups of which 50% preferred equal distribution. In the second experiment, if survival gain per patient was equal for both groups, 57% chose treatment for group with shorter baseline life expectancy. If survival gain per patient was larger for group with longer baseline life expectancy, 49% still chose treatment for group with shorter life expectancy. **CONCLUSIONS:** General support for statements expressing equity was confirmed by two experiments. Instead of QALY maximization, a significant group of responders took into consideration needs of both patients' groups irrespective of costs and disease severity irrespective of QALY gain.

#### PHP54

##### PREDICTORS OF AVOIDABLE EMERGENCY ROOM VISITS AMONG HIGH COST MEDICAID ENROLLEES

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**OBJECTIVES:** Research has shown that Medicaid enrollees in the USA are the most frequent users of the Emergency Department (ED) services. Several studies have demonstrated that a high proportion of the ED visits could be avoided. The purpose of this analysis is to examine the demographic and health system delivery characteristics that are associated with avoidable ED visits (AEDV) among a high risk, high cost Medicaid population between 2008 and 2009. **METHODS:** One year claims dataset of a sample of high cost, high risk Medicaid enrollees in Houston, Texas was used for the analysis. This was design following the Andersen-Aday theoretical