capita on the medical spending. **METHODS:** Our analysis can be chiefly divided into two respects, the wealth effect of income and the depreciation effect of health capital. We use the theoretical model of Grossman's health capital theory to analy- 
sis the relationship between income and medical expenditure. Then we use the 2 part model to empirical research the wealth effect and the depreciation effect of health capital. We also use the key principle of medical expenditure elasticity. **RESULTS:** According to the study, the depreciation effect of health capital brought by the relatively lower income is not significant, but the income levels have significantly positive wealth effect on medical spending. The low-income people are inferior in terms of wealth and have heavier medical burden than high-income people. **CONCLUSIONS:** This result indicates that the low-income people may face shortage of health capital input, especially in poor rural area. Thus, the government should increase the low-income people's medical input and improve their medical security system.

**PHP37**

**EVALUATION OF A MULTIDISCIPLINARY HOME-BASED MEDICATION REVIEW PROGRAM FOR ELDERLY SINGAPOREANS**

**Objectives:** (i) To determine the prevalence of drug-related problems (DRPs) among patients referred to a multidisciplinary home-based medication review (HBMR) pro- gram for elderly Singaporeans. (ii) To evaluate the effectiveness of the program in resolving DRPs and reducing health service utilization (HSU).

**Methods:** A retrospective case series was conducted at an academic medical centre in Singapore. Patients referred to the HBMR program between March 2011 and December 2012 were included in the analysis. HBMR was conducted as a multidisciplinary team of phar- macists and care coordinators. DRPs identified were categorised and their outcomes (resolved/ unresolved) recorded by the pharmacist. HSU behaviour, consisting of hospitalisations and emergency visits, was evaluated 6 months before and after the home visit. Summary statistics were used to report patient characteristics and prevalence of DRP, while paired t-test was used to compare HSU behaviour pre and post HBMR. A multiple imputation analysis included 107 patients with the mean (SD) age of 75.6 (7.6) years. There were 52 (48.6%) males, and 89 (83.2%) were Chinese. The team reviewed 1353 medications in total and identified 525 DRPs, corresponding to a mean (SD) of 4.9 (2.4) DRPs per patient. Of these, 34 (6.7%) and 174 (34.1%) DRPs were resolved and not resolved, respectively. The most common DRPs identified were failure to receive drug (n = 163, 31.0%) and untreated indication (n = 140, 26.7%). There was a reduction in mean (SD) hospital admissions (2.1 (1.2) vs 1.5 (1.5), p = 0.017) and emergency visits (0.1 (1.2) vs 0.2 (1.5), p = 0.005) post HBMR. Subgroup analysis of 62 patients with repeated admissions found a reduc- tion in mean (SD) cost of hospitalisation post HBMR (SGD 17,423.69 (17,110.01) vs SGD 12,924.13 (14,564.69), p = 0.045). **Conclusions:** DRPs are prevalent among elderly Singaporeans referred to the HBMR program is useful in identifying and resolving DRPs, as well as reducing HSU.

**PHP38**

**EVALUATION OF ADVERSE DRUG REACTIONS (ADR) MONITORING AND REPORTING SYSTEM IN CHINA**

**Objectives:** As part of safety regulation, ADR monitoring plays an important role in the post-market surveillance. The purpose of this study was to evaluate China's ADR monitoring system and to identify the key problem of the system.

**Methods:** ADR data (2008-2012) were collected from reviewing the National ADR Information Bulletin, Pharmacovigilance Express, Annual Report of National ADR Monitoring, and an on-site data extraction from the National Centre for ADR Monitoring. For a certain drug, three indicators (e.g., ADR reporting rate and serious ADR control) were measured in terms of picking efficiency of each full time equivalent (FTE) when working hours, should be used for work. However, the average daily working time for study participants was 454.8 minutes, which is 69.8 minutes more than the expected time. The daily workload by time is seen doctors use 75.4% of their time for health care services, 21.9% for filling initial forms, 5.4% for PH care services, and 4.2% for pre-service. Moreover, 3.7% of time was spent for downtime that was not caused by waiting for next client or nurses.

**Conclusions:** 1. Traumatologist’s spend 71.7% of their working hours for provision of health care services and 15.6% for PH care service. It indicates a shortage of time for conducting sufficient PH activities which is the main duty in the workplace. 2. Many types of initial forms are requested at the emergency health care settings, including 21.9% of working hours affects to decrease in time for PH care services.

**PHP42**

**EVALUATING THE IMPACT OF DRUG DISPENSING SYSTEMS ON THE SAFETY AND EFFICACY IN A SINGAPORE OUTPATIENT PHARMACY**

**Objectives:** The objective of this study was to evaluate the impact of the drug dispensing systems on the safety and efficacy of medication in Singapore. The study was conducted at the Singapore General Hospital, Singapore. Data was collected retrospectively from medical record section from 2012 to 2013 in a suitable designed case record form. Data was analysed by using SPSS 20.0 with chi-square and one way anova.

**Results:** Total of 199 cases of drug dispensing was documented out of which 135 (67.8%) were males and 64 (32.2%) were females. The average age in this group of patients was found to be 34.22 ± 24.6. The pre-hospitalization period was 1.58 ± 2.07 days. Among them majority of the cases were suicidal (94.5%). Patients with a poison severity score of grade 1, 5.8% had intermediate syndrome. In grade 2 only 33.3% had intermediate syndrome and the most was seen in grade 3 where 60% had intermediate syndrome. Patients with a poison severity score of grade 2 had a recovery rate of 66.6% and patients with grade 3 had a recovery rate of 64.6%. **Conclusions:** As the severity in poison severity score increases other parameters like ventilation, intermediate syndrome and mortality also increases. There is a strong correlation between the poison severity score and outcome of the patient.
mary and secondary outcomes between January and December 2013 were collected and analyzed. RESULTS: The median percentage of patients with NDRPs was 34.8% (interquartile range 21-30 years, and males (65%) predominated over females. Clinical Severity assessment was done by using GCS (Glasgow coma scale) and PSS (Poison Scale) at Primary level hospitals and 75 percent of their cooks are not trained sufficiently. The Initial severity of poisoning compared with the outcome of OP poisoning was done by using GCS (Glasgow coma scale) and PSS (Poison Scale).

CONCLUSIONS: In summary, installation of DDS in an outpatient pharmacy improved safety of the prescription filling process by automating the medication picking, packing and labeling process was also improved by the DDS as there were continuous efforts to boost their productivity as well as being more reliable and able to handle fluctuations in patient load better.

PHP43 ASSOCIATION OF SEVERITY ASSESSMENT TOOL WITH THE OUTCOME OF ORGANOPHOSPHORUS POISONING IN TERTIARY CARE TEACHING HOSPITAL G M1, Thunga G2
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OBJECTIVES: The present study aimed to identify the relationship with severity of organophosphorus (OP) poisoning with its outcome. METHODS: A prospective, observational study was carried in a total of 250 OP poisoning patients reported to emergency ward of a tertiary care teaching hospital admitted from 2009 to 2013. The patient's demographic, clinical characteristics and severity were assessed at admission. The severity of poisoning was compared with its outcome. RESULTS: The results showed that majority of OP poisoned patients were in the age group of 21-30 years (40.4%), 62.8% were males and about eight percent (n= 32) of the DRP group were exposed to hospital admission while only 15.7% (n = 6) were ED visits. CONCLUSIONS: Most DDs attributed to hospital admissions or visits were avoidable. Direct patient contact and benefical clinical approach to the patient in the hospital. The study addresses the proper use of medications to ensure the best outcomes of pharmacological interventions.

PHP44 UNDERSTANDING THE NEED AND VALUE OF SURROGATE ENDPOINTS FOR HEALTH CARE DECISION MAKING IN ASIA PACIFIC C (2014) A719–A813

OBJECTIVES: To measure the cost of pharmaceutical service for outpatients and inpatients in a class A tertiary hospital in Sichuan, China, provide evidence for data analysis besides descriptive indicators. Results of this study indicates the measures of public hospital compensation after implementing drug sale with no markup. The Initial severity of poisoning compared with the outcome of OP poisoning was done by using GCS (Glasgow coma scale) and PSS (Poison Scale).

CONCLUSIONS: Conclusions: 1. Food inspection and regulation is weak because of the lack of professional nutritionists approved by the Minister (2007). 2. Therapeutic food is used in practice. Dietary treatment, admissions associated with drug related problems (DRPs) in a secondary care hospital, to assess the severity and preventability of these drug related admissions or visits, and to identify the drugs and patient groups that are most commonly involved. METHODS: Patients (n=450) were selected randomly from patients presented to the ED during the study period (three month). Patient was eligible to be included if either visited ED or admitted due to DRPs. RESULTS: During the study period, 450 patients presented to ED were randomly selected with a mean age of 47.8 ± 27.7 years. One hundred and twenty of them were females (30%) and 280 were male patients (70%). Of these 450 patients, 38 (8.4%) were presented to ED due to DRPs, and 362 (81.6%) patients were presented to ED due to non-drug related problem. About 84% (n=367) of the DRP group were exposed to hospital admission while only 15.7% (n = 6) were ED visits.

PHP45 UNDERSTANDING THE KNOWLEDGE OF PHARMACISTS ABOUT COSMETICS PRODUCTS IN PHARMACIES OF TEHRAN (IRAN) Ghasemi G, Hashemi F, Kelbinazadeh A, Gilani B, Sheikhzadeh A4

METHODS: Patients (n=200) were selected randomly from patients presenting to the ED during the study period (three month). Patient was eligible to be included if either visited ED or admitted due to DRPs. RESULTS: During the study period, 450 patients presented to ED were randomly selected with a mean age of 47.8 ± 27.7 years. One hundred and twenty of them were females (30%) and 280 were male patients (70%). Of these 450 patients, 38 (8.4%) were presented to ED due to DRPs, and 362 (81.6%) patients were presented to ED due to non-drug related problem. About 84% (n=367) of the DRP group were exposed to hospital admission while only 15.7% (n = 6) were ED visits.

CONCLUSIONS: Most DDs attributed to hospital admissions or visits were avoidable. Direct patient contact and benefical clinical approach to the patient in the hospital. The study addresses the proper use of medications to ensure the best outcomes of pharmacological interventions.