

journals and articles as very useful source of information and 35.92% doctors mentioned as useful source of information. Only 4.85% doctors believe this is less useful source of drug information. 49.51% of doctors believe as very useful source of information and 45.63% as useful. Only 4.85% doctors mentioned that as less useful source. Subscription based source showed that 41.74% doctors mentioned that as very useful source and 49.51% mentioned that as useful source. A total of 8.73% doctors mentioned that as less useful source. Informal discussions with other doctors as drug information source is very useful for 47.57% doctors and useful for 46.60% while only 5.82% doctors mentioned that as less useful source of information. **CONCLUSIONS:** Medical representative is not the option for successful promotion, companies should also focus on other sources ex. medical journals, internet sources which are highly appreciated among health care practitioners.

#### PHP54

##### CHEMICAL DRUG PRICE INDEX STUDY

Chang F<sup>1</sup>, Zhu D<sup>2</sup>, Zhao Z<sup>3</sup>, Yang Z<sup>3</sup>

<sup>1</sup>Research Center of Drug Pricing, China Pharmaceutical University, Nanjing, Jiangsu, China, <sup>2</sup>China Pharmaceutical University, Nanjing, Jiangsu, China, <sup>3</sup>China Price Association, Beijing, Beijing, China

**OBJECTIVES:** To accurately reflect actual price level of chemical drugs and changes, this study deeply explored influencing factors of chemical drug price, constructed chemical drug price index system and meanwhile sought methods to establish price index of a specific type of chemical drugs. **METHODS:** Combination of qualitative and quantitative methods was used to explore establishment of chemical drug price index. Expert evaluation and field survey were used to determine classification of chemical drugs, representatives and representatives' weights. Questionnaire was used to determine key data in selection of chemical drug representatives. Field survey was used for data collection. **RESULTS:** On the basis of chemical drug classification, representatives were determined step by step. By collecting chemical drug price data in representative regions and manufacturers, quantitative calculation of weight was performed. Selection route of quality adjustment method and key quality collection method when representative changed in price index were investigated. Data collection protocol required to establish chemical drug price index was proposed. Feasibility to establish chemical drug price index system was explored and several main price indexes were proposed. **CONCLUSIONS:** First, this study proposed specific methods to establish chemical drug prices and solved the problem of selecting representative from various chemical drugs. Second, quality adjustment decision process was proposed and key quality adjustment methods were explored. Finally, as it is difficult for a single overall chemical drug price index to completely reflect the general view of chemical drug price level and changes in our country, this study proposed an index system including overall index, essential drug index and antibiotic index based on the need of reality.

#### PHP55

##### PERCEPTION TOWARDS HEALTH PROMOTION ACTIVITIES: FINDINGS FROM A CROSS SECTIONAL SURVEY AMONG URBAN POOR POPULATION IN THE STATE OF PENANG, MALAYSIA

Hassali MA<sup>1</sup>, Shafie AA<sup>1</sup>, Saleem F<sup>1</sup>, Chua GN<sup>2</sup>, Atif M<sup>3</sup>, Masood I<sup>2</sup>, Haq N<sup>1</sup>

<sup>1</sup>Universiti Sains Malaysia, Penang, Malaysia, <sup>2</sup>Universiti Sains Malaysia, Penang, P. Penang, Malaysia, <sup>3</sup>Universiti Sains Malaysia, Penang, P. Pinang, Malaysia

**OBJECTIVES:** To provide information on the perceptions towards health promotion activities among an urban poor population of Malaysia. **METHODS:** The study was designed as a questionnaire based cross-sectional analysis. General public from the district of Jelutong which is located in the state of Penang, Malaysia was conveniently approached for the study. The questionnaire asks about perceptions and awareness towards health promotion activities. Descriptive statistics were used to ascertain demographic characteristics of the study participants. Inferential statistics were employed to measure the extent of association among study variables. All analysis was performed by SPSS v.16.0. **RESULTS:** Out of 480 respondents, a response rate of 82.7% was achieved as 397 responded to the survey. The study cohort was dominated by females (63.0%). Majority of the participants belonged to Malay ethnicity (88.1%). One hundred and seventy two (43.3%) never attended a health promotional campaign and mentioned lack of time and transport as potential barriers. Among those who attended such activities, one third was satisfied with the benefits of health campaigns and indicated an improvement in their quality of life. Approximately 90% of the participants demanded accessible locations, common language as mode of communication and complete medical checkup with professional advice at health promotional campaigns. **CONCLUSIONS:** Almost half of the study population never attended a health promotional campaign. General public should be educated and encouraged to participate in the health promotion activities. In addition, potential barriers like lack of time and transport should be avoided by organizing such events with the reach of the community members.

#### PHP56

##### THE ROLE OF ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS IN WORKS AND RECOMMENDATIONS OF AGENCY FOR HEALTH TECHNOLOGY ASSESSMENT IN POLAND (AOTM) IN YEARS 2005-2011

Ofierska-Sujkowska G, Matusewicz W, Jagodzinska-Kalinowska K  
Agency for Health Technology Assessment in Poland (AOTM), Warsaw, Poland

**OBJECTIVES:** To assess the influence and role of antineoplastic and immunomodulating agents in works and recommendations of AOTM. The main role of AOTM, established in 2005, is to assess, appraise and prepare recommendations on financing all medical technologies and services claiming public money founding. Full pharmacoeconomic evaluations of new therapies are required for all reimbursement decisions. Manufacturers of antineoplastic and immunomodulating drugs

are obligated to provide HTA reports in order to have their drug reimbursed. Recommendations issued by AOTM have been based on Manufacturer's submission, additional published data, experts and Polish public payer opinions. **METHODS:** All recommendations issued by the AOTM until the end of 2011 were reviewed and analyzed from the official website of AOTM. The recommendations related to antineoplastic and immunomodulating drugs were distinguished. **RESULTS:** Among 400 AOTM recommendations analyzed, the largest number, 142 of 400 (36%) was connected with antineoplastic and immunomodulating agents. 105 (74%) of them regarding oncology treatment. Recommendation for non-drug technologies were issued to 47 (12%) of 400 technologies. 58 (15%) applied to drugs used in the treatment of nervous disorders, 34 (9%) metabolic disorders, 31 (8%) were related to cardiovascular drugs, 21 (5%) genito-urinary system. 15% of verified documentations applied to other, single indications. **CONCLUSIONS:** The number of recommendations issued for antineoplastic and immunomodulating drugs in comparison to other medicines reflects the importance and significance of this area of medicine. Documents prepared by AOTM related to antineoplastic (cancer chemotherapy) treatment represent standards and trends in contemporary medicine.

#### PHP57

##### CLINICAL EFFECTS OF PHARMACIST INTERVENTIONS FOR POLYPHARMACY IN A GERIATRIC CLINIC IN TAIWAN

Hsu YM<sup>1</sup>, Hsu LZ<sup>1</sup>, Huang CH<sup>1</sup>, Hsu SL<sup>1</sup>, Chien SY<sup>2</sup>

<sup>1</sup>Changhua Christian Hospital, Changhua, Changhua, Taiwan, <sup>2</sup>Changhua Christian Hospital, Changhua, Changhua, Taiwan

**OBJECTIVES:** To evaluate clinical pharmacist interventions in geriatric outpatients in terms of reduce the potentially deleterious consequences of polypharmacy. **METHODS:** This intervention study was conducted by geriatric team from March 2011 until Aug 2011 in a medical center in Taiwan. Medication assessment was undertaken in elderly outpatients aged 65 years or older who prescribed five or more drugs concomitantly on the date of inclusion. We provided Comprehensive Geriatric Assessment (CGA) to the patients. This process involves a comprehensive medication history interview by pharmacist, structured therapy assessment, and open communication between members of the medical team. **RESULTS:** A total of 51 patients were included during the period. The mean age was 79.4 ( $\pm$  13.4) years; 53% were women. The patients took an average of 11 different long term medications. Medication reduction during 3 consequence pharmacist consulting in clinic visit were 37.7%, 38.8%, 44.2% respectively. Finally, the mean number of medications prescribed per patient was 7.8. **CONCLUSIONS:** Pharmacists involved in CGA has proved effective in reducing the number of prescriptions and daily drug doses for patients by facilitating discontinuation of unnecessary or inappropriate medications.

#### PHP58

##### DIRECT COST OF ADVERSE DRUG REACTION TREATMENT IN HOSPITALIZED PATIENTS IN NAKHON PATHOM HOSPITAL, THAILAND

Kornkaew J<sup>1</sup>, Auekunsomsomboon K<sup>2</sup>, Junklub J<sup>2</sup>, Kongchat J<sup>2</sup>, Maitreemit P<sup>2</sup>, Sonchaem T<sup>3</sup>  
<sup>1</sup>Silpakorn University, AMPUR MAUNG, NAKHON PATHOM, Thailand, <sup>2</sup>Silpakorn University, Ampur Maung, nakornpathom pro, Thailand, <sup>3</sup>Nakhon Pathom Hospital, Ampur Maung, nakornpathom pro, Thailand

**OBJECTIVES:** To determine the direct medical cost of treatment in hospitalized patients with adverse drug reactions (ADRs) in regional hospital in the provider's perspective. **METHODS:** The direct medical cost were collected from historical profile of the inpatients who were identified using a list of ICD-10 and admitted in special ward 4/2 in the fiscal year 2009 (From 11/7/2008 - 9/30/2009) in Nakhon Prathom Hospital. They were divided into 2 groups 1) the patients admitted with ADRs, and 2) the patients who admitted and developed ADRs after admission so that extended hospitalization. The direct medical cost including cost of medical care, cost of hospitalization and cost of laboratory. **RESULTS:** During study period 34(19.32%) cases of hospitalization patients admitted because of ADRs and 142(80.68%) cases were verified to have ADRs after admission and 137(77.84%) cases were excluded because they developed ADRs but not extended their hospitalization. More than 35% of the patients age between 30 -44 years old in both groups. The 22(56.41%) patients in group 1 did not previously have ADR. Using Naranjo's Algorithm found that more than 60% of the patients were categorized in probable class. ADR occurred in both groups more than 40% cause by antibiotics. Most frequent ADR were maculopapular(30.77%) and urticaria(15.38%) as well as occurring more than 1 symptoms(15.38%). Total direct medical cost in fiscal year 2010 from patients in both groups was estimated at 185,935.75 Thai Baht, average direct medical cost 4,767.58 Thai Baht per patient. The average direct medical cost in group 1 and group 2 was 5,074.94 Thai Baht and 2,677.55 Thai Baht per person respectively. **CONCLUSIONS:** This study emphasized medical and economic impact of the ADRs treatments. ADR surveillance and pharmaceutical care activities would be compared the cost and benefit.

#### PHP60

##### IRANIAN PHARMACISTS' JOB SATISFACTION: ANALYSIS THROUGH VARIOUS JOB CHARACTERISTICS

Foroughi Moghadam Mj<sup>1</sup>, Peiravian F<sup>1</sup>, Naderi A<sup>1</sup>, Mehralian G<sup>1</sup>, Rasekh H<sup>2</sup>

<sup>1</sup>Shahid Beheshti University of Medical Sciences, School of Pharmacy, Tehran, Tehran, Iran, <sup>2</sup>Shahid Beheshti Medical University, tehran, Iran

**OBJECTIVES:** Concerning insufficient collected data about pharmacists' job satisfaction in the Middle East and also in Iran, this countrywide study was conducted to determine Iranian pharmacists' job satisfaction in some job characteristics; additionally, some causes of dissatisfaction among pharmacists have been diagnosed. **METHODS:** A job satisfaction questionnaire was developed and reliability tests were done by some experts in field of pharmacy practice. Then a sample