them had upper respiratory infection due to congested and dusty environment. On previous observation may of hajj pilgrims were given antibiotic for their UTIs.

Most of antibiotics prescribed to pilgrims were based on prescribers judgment. The study aims to determine the prevalence severity and the pattern of antibiotic usage.

METHODS: This cross sectional study was conducted from December 2007 to January 2008. Validated self administered questionnaire forms were distributed to about 3,000 Malaysian Haji Pilgrims in Makkah of Saudi Arabia. The severity of UTIs was based on the patient’s perception and the number of symptoms.

RESULTS: Majority, 87.1% of 2194 pilgrims reported had UTIs, 12.4%, (41.6%) and (46.0%) of pilgrims were categorised severe, moderate, and mild respectively. Antibiotics were prescribed to 58.8% pilgrims, the pattern of antibiotic used was associated with severity (p = 0.001) and the number of symptoms (p = 0.001) and 55.1% of them had fever. Many of them (68.8%), take one course of antibiotic, while 28.5% and 8.0% received two and three courses.

CONCLUSIONS: A high prevalence of UTIs among adult Malaysian Hajj Pilgrims was one of the most prevalent medical problem. Eighty percent of the pilgrim patients were infected by severe and had fever received antibiotics. About one third of them, however, were not get benefit from first course of antibiotics. Proper antibiotic guideline that supported by microbiological studies are proposed to justify the use of antibiotics for hajj pilgrims.

EVALUATION OF THE USE OF SEDATION FOR ADULTS USING MECHANICAL VENTILATORS IN A HOSPITAL IN TAIWAN

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OBJECTIVES: To evaluate the use of sedatives in critically ill adult patients with endotracheal tube (ETT) and mechanical ventilator (MV) in a hospital in Taiwan.

METHODS: We conducted a study retrospective by reviewing medical records of all patients with ICD-9: 96.71, 96.72, 96.04, from Oct 2008 to Feb 2009 were included. Patients were excluded if they were pediatric patients, without complete records, using MV after discharged, in regular wards, or using MV less than 24 hours. The patients were divided into four groups concerning types of sedation and ventilation. The second day points were length of ICU stay, hospital stay and events of tracheotomy, reintubation, self-extubation. Chi square and t-test were performed for dichotomous and continuous variables respectively. SPSS (Version 13.0) was used.

RESULTS: We collected data from 91 patient cases. The distribution of the use of sedatives and MV between the four groups were not significantly different. The mean treatment duration among patients receiving midazolam was 4.6 days and 2.2 days among patients with propofol. The larger duration of length of stays were possibly related to the usage of midazolam and the prescribing habits of physicians.

CONCLUSIONS: We found the physician preference by using physical restriction as first line and sedatives as second line did not benefit the critically ill patients. We will implement a sedation guideline to tailor the needs of our facility for optimal patient care.

REAL-WORLD DIAGNOSIS AND TREATMENT PATTERNS OF IRON DEFICIENCY ANEMIA IN CHINA

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OBJECTIVES: To investigate the real-world diagnosis and treatment patterns of iron deficiency anemia (IDA) in China. METHODS: Literature review, Key Opinion Leaders survey, and patient case review were conducted. The review was based on Chinese Academic Journals Full-text Database (2006-2010). A total of 163 publications were targeted by searching in terms of IDA diagnosis and treatment. A total of 44 senior physicians specialized in nephrology, hematology and obstetrics/gynecology were selected from tertiary hospitals in Beijing, Shanghai, Guangzhou, Shenyang and Chengdu, who were requested to complete a questionnaire in two weeks.

The structured questionnaire included IDA awareness, diagnosis, treatment and related drivers and restrictions. Information on Lab tests and treatments were collected from 91 patient cases. Descriptive analysis was performed. The results of KOL survey and patient case review were consistent, indicating the validity and reliability of the results.

RESULTS: Majority, 87.1% of 2194 pilgrims reported had UTIs, 12.4%, (41.6%) and (46.0%) of pilgrims were categorised severe, moderate, and mild respectively. Antibiotics were prescribed to 58.8% pilgrims, the pattern of antibiotic used was associated with severity (p = 0.001) and the number of symptoms (p = 0.001) and 55.1% of them had fever. Many of them (68.8%), take one course of antibiotic, while 28.5% and 8.0% received two and three courses.

CONCLUSIONS: A high prevalence of UTIs among adult Malaysian Hajj Pilgrims was one of the most prevalent medical problem. Eighty percent of the pilgrim patients were infected by severe and had fever received antibiotics. About one third of them, however, were not get benefit from first course of antibiotics. Proper antibiotic guideline that supported by microbiological studies are proposed to justify the use of antibiotics for hajj pilgrims.

DEVELOPMENT OF NATIONAL MEDICINE BRAND SUBSTITUTION GUIDELINES AND PILOT ASSESSMENT OF ITS ADOPTABILITY AMONG COMMUNITY PHARMACIST AND GENERAL PRACTITIONERS IN THE STATE OF PENANG, MALAYSIA

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OBJECTIVE: To develop national medicine brand substitution guidelines and assesses the community pharmacist and general practitioners in Malaysia. METHODS: A cross sectional postal survey was conducted with a sample of 100 community pharmacists and 100 general practitioners selected systematically in the state of Penang, Malaysia. A pre validated questionnaire was used for data collection. Frequency and percentages were used to elaborate the data. SPSS v. 16 was used for data analysis. RESULTS: From a total of 200 questionnaires mailed, the response rate was 16% (n=16) for general practitioners and 36% (n=36) for community pharmacist. Majority of the respondents (n=53, 85.4%) disagreed that generic medicines lead to more side effect as compared to innovator brands. However, 59.6% (n=37) reported that Innovator brands are more effective than generic medicines. Moreover, (n=33, 53.2%) agreed that generics medicine are not bioequivalent to the innovator brands. Majority (n=40, 64.5%) stated that generic medicines should be available in same dosage form and strength as innovator brand medicines. Almost all respondents (n=52, 83.8%) demanded that dispensed medicines should be labelled with the generic (INN) name of the medicine with or without the brand name. While comparing with general practitioners (n=13, 81.3%), community pharmacists (n=59, 91.7%) were in high favor that a written national generic brand substitution guideline is needed in Malaysia. In addition, all the respondents strongly agreed to the statement that thorough counselling should be provided to the patients if their medicine is changed from innovator brand to generic in order to avoid confusion. CONCLUSIONS: Majority of national practitio- neers in Penang agreed that a written national generic brand substitution guideline is needed in Malaysia. This study aims to determine the level of SMBG usage in patients on different diabetes therapies.

METHODS: A cross sectional postal survey was conducted with a fixed representative panel of endocrinologists and cardiologists from 13 large Chinese cities. Patient cases were documented in a standardized format. SMBG usage was analyzed by therapy-subgroups: oral diabetes therapy only (OAD 54%), basal plus conventional insulin (BPI 20%), basal plus intensive insulin therapy (ITT 6%) and OTHERS (2% - not reported). RESULTS: Fifty-nine percent were patients with type 2 diabetes. A total of 5288 patients (50.8%) had a meter for home-testing. Shares of testers by therapies (OAD / BDT / CT / ITT) were 34.5/14.3/34.8 and 68.7/27.6/18.9 and 3.3 and 4.0 respectively. In the IIT group 1% tested at least 3 times a day. HbA1c levels were Confidential.

Most of antibiotics prescribed to pilgrims were given antibiotic for their UTIs.

Most of antibiotics prescribed to pilgrims were based on prescribers judgment. The study aims to determine the prevalence severity and the pattern of antibiotic usage.

METHODS: This cross sectional study was conducted from December 2007 to January 2008. Validated self administered questionnaire forms were distributed to about 3,000 Malaysian Haji Pilgrims in Makkah of Saudi Arabia. The severity of UTIs was based on the patient’s perception and the number of symptoms. RESULTS: Majority, 87.1% of 2194 pilgrims reported had UTIs, 12.4%, (41.6%) and (46.0%) of pilgrims were categorised severe, moderate, and mild respectively. Antibiotics were prescribed to 58.8% pilgrims, the pattern of antibiotic used was associated with severity (p = 0.001) and the number of symptoms (p = 0.001) and 55.1% of them had fever. Many of them (68.8%), take one course of antibiotic, while 28.5% and 8.0% received two and three courses. CONCLUSIONS: A high prevalence of UTIs among adult Malaysian Hajj Pilgrims was one of the most prevalent medical problem. Eighty percent of the pilgrim patients were infected by severe and had fever received antibiotics. About one third of them, however, were not get benefit from first course of antibiotics. Proper antibiotic guideline that supported by microbiological studies are proposed to justify the use of antibiotics for hajj pilgrims.
frequencies were available. Shares of testers by therapies (OAD/INSULIN) were 10.11% and 89.89% respectively. Physicians recommended an average of 5.9 insulin per week, patients performed 2.8 (47.5%). For OAD/INSULIN test frequencies were 2.8 and 2.2. Doctors rated the SMBG adherence as good or very good in 43% of cases.

**CONCLUSIONS:** In community centers the vast majority of patients have type 2 diabetes. FPG values were broadly documented, but the therapy quality marker HbA1c values were available in the majority of patients. SMBG was more common with insulin users, but clearly below guideline recommendations. It needs to be determined which measures could potentially improve the current practice in diabetes care in order to strengthen the role of community health centers in managing the diabetes epidemic in China.

**PHP114**

**FAILURE FOR COST-SHARING SCHEMES TO TAKE OFF IN INDIA: WHAT CAN BE THE ACCESS SOLUTION?**

Kirpekar S.

**OBJECTIVES:** With high costs of some oncology and biological therapies, manufacturers have introduced patient access schemes in Asian countries including Indonesia, Malaysia, Philippines and China where the out-of-pocket is the main funding and access mechanism. These schemes have been welcomed by stakeholders involved including patients, clinicians and governments. Our objective was to understand why such programmes have not succeeded in India despite a large middle class and almost complete out-of-pocket funding for pharmaceuticals, and to find possible ways to overcome the hurdles presented. **METHODS:** The approach involved desk research followed by primary research across stakeholders in India. Twelve in-depth telephone interviews were conducted with stakeholders in the public and private sectors, NGOs, leading physicians and manufacturers. The information collected was assessed and analysed. **RESULTS:** Majority of the respondents (n=10) quoted bureaucracy and the informal economy, and thus difficulties with means-testing as the two most important reasons for the schemes not taking up. General ignorance about the potential of such schemes and cynicism surrounding them are a deterrent. Unethical medical practice, a great patient – provider knowledge gap and a lack of streamlined infrastructure for scheme delivery are thought to be important factors. Respondents confirmed that majority of the large middle class lacks access to innovative medicines for many diseases. The Glooeev patient access scheme was quoted by a few respondents as a rare example of such a scheme being run. Partnering with the public sector and NGOs was thought to be an alternative way out. There was mention of many local NGOs/charities which fund targeted oncology therapies for those with limited resources. **CONCLUSIONS:** India needs tailored, innovative ways of accessing high cost drugs for its local населения and bringing different from those in other countries in the region. Public-private partnerships involving large stakeholders such as the Ministry of Railways could be an option.

**HEALTH CARE USE & POLICY STUDIES - Regulation Of Health Care Sector**

**PHP115**

**GEOGRAPHICAL DISTRIBUTION OF PHARMACIES VERSUS POPULATION: THE CASE OF TWO CAPITAL CITIES IN IRAN**

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**OBJECTIVES:** Access to medications is one of the main goals of Iran National Drug Policy (NDP). Being a function of multifactors such as distribution of pharmacies, if the geographical access is observed, drug accessibility is guaranteed to some extent. The aim of this study is to compare the Geographical distribution of pharmacies with population in two capital cities of Iran. **METHODS:** Two cities of Tehran and Ahwaz with strategic and transitional importance with cultural and socioeconomical differences (Khorraramad and Ahwaz) were selected. In the first step the population of different regions was collected from state government databases. Furthermore, all of the pharmacies’ locations in these two cities were detected through their Food and Drug deputies. The percent of population and pharmacies located in each region were calculated and compared together by differentiating related percentages in order to find an overview of present status of distribution and access to pharmacies. **RESULTS:** Ahwaz and Khorraramad, two west-southern cities of Iran, with a population of approximately 1,000,000 and 2,000,000 are separated to eight and three regions respectively. Unlike Khorraramad, an even distribution of population was found in Ahwaz. The differences in percent of population versus pharmacy distribution for the first eight regions in Ahwaz were found as followed: 13.8, 3.9, 4.4, 8.3, 6.1, 2.6, 5.6 and 3.3. Those of the three regions of Khorraramad were -18, 17 and 1. **CONCLUSIONS:** The results show the distribution of pharmacies in both cities does not match that of population in most regions. However in one region of Khorraramad and three regions of Ahwaz the distribution was acceptable. This can be justified by the fact that physicians are mostly concentrated in few regions that attract the pharmacists. It should be noted that the suitability of population and pharmacies’ distribution is one of the most important factors in evaluating access to medicine.

**HEALTH CARE USE & POLICY STUDIES - Risk Sharing/Performance-Based Agreements**

**PHP116**

**EQUITY IN THE NEW RURAL COOPERATIVE MEDICAL SCHEME: COMPARISON OF BENEFIT PACKAGES FOR CHRONIC DISEASE OUTPATIENTS IN 32 COUNTIES IN CHINA**

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**OBJECTIVES:** Chronic disease has become a major problem affecting the health of the Chinese population. In response to this situation, the New Rural Cooperative Medical Scheme (NRCMS) has begun to provide health cover for outpatients with chronic disease expenses, making possible by the increased risk pool of recent years. We compared the differences between benefit packages for chronic disease outpatients in 32 counties, in order to assess their population reach, equity and cost implications and to formulate recommendations for policy makers. **METHODS:**_items of the various benefit packages was located by searching the official NRCMS websites in China at the end of 2009. We developed a conceptual framework based on the three main criteria: 1) population coverage; 2) service coverage; and 3) costs with various sub-criteria to compare benefit packages in 32 counties across China. Chronic diseases were classified according to the ICD-10. **RESULTS:** While the relaxation of avoiding “hazard” county, different levels of development complex processes to define benefit packages for chronic diseases. These have resulted in substantial differences in benefit package equity and cost between counties. In most counties chronic disease patients find it very difficult to become beneficiaries. Forty-one chronic diseases were identified in the 32 counties, varying between 4 and 28 per individual county. We also found large discrepancies in co-payment rates, deductibles, ceiling, coverage of drugs and tests, accredited hospitals and reimbursement frequency. **CONCLUSIONS:** Reimbursement procedures are remarkably diverse in different counties. Population coverage, service coverage and cost of benefit packages for chronic diseases vary substantially in the 32 counties studied. This reflects the new policy of decentralization of decision making to the county-level resulting in a “postcode lottery” of patient benefits. National regulation to redress these inefficiencies and inequalities is urgently needed.

**PHP117**

**STUDY ON THE HEALTH INSURANCE COVERAGE AMONG POOR AND DISADVANTAGED CITIZENS**

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**OBJECTIVES:** To evaluate health insurance coverage rate among poor and disadvantaged citizens and study the cause and condition of not being involved in health insurance. **METHODS:** The sampling size was estimated by using the number of poor and needy in selected districts. By using multistage–sampling method, concentration of poor and poverty group among the total person of selected districts was calculated. There are sampling error at 5% sampling error (d=5%), confidence interval (CI=95%) and the influence of non-sampling error estimated. **RESULTS:** In the first years of health insurance in Mongolia, there was coverage achieved at 96-97%, but later it decreased because of diversity of employment’s structure, increasing unemployment rate, and most influential factor as PFC was excluded from social health insurance. The result shows, HI coverage was 95.3% in 1998, but this rate was decreased till 84.4% in 2008. 95-97% of people who were involved in the survey, have lower income than living standard. According to the pattern of socio-economic status includes 26-35 aged economic farmers and urban people, there were 44.79 % male and 55.21% female. To survey whether all people who were involved in the survey, got covered by health insurance last 3 years, there were 47.14% of them involved in health insurance. As forms of paying insurance fee, 17.3% paid individually, 49.17% paid by government and 33.7% mixed forms. To survey on the health insurance coverage in the survey, 42.4% were involved. As forms of paying insurance fee, 27.61% paid by voluntary, 41.1% paid by mixed. **CONCLUSIONS:** The health insurance cannot protect poor and disadvantaged citizens from financial and other risks. People cannot be provided by equal health service as the government’s insulation, breach of citizenship identification paper and no registration of citizenship. The main reason of health insurance non-involvement depends on economic disadvantage and lack of information.

**PHP118**

**ATTITUDE OF FARMERS TO THE NEW RURAL COOPERATIVE MEDICAL SCHEME IN THE NORTHWEST OF CHINA: A CROSS-SECTIONAL STUDY**

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**OBJECTIVES:** The implementation of the New Rural Cooperative Medical Scheme (NRCMS) has been spreading health insurance coverage fairly fast since a county pilot trial began in September 2003. The purpose of this survey was to guide policy makers of Huixian county and ultimately improve the current national NRCMS policy. **METHODS:** Cross-sectional survey of the attitudes of farmers towards the NRCMS conducted in 2005. A total of 1978 farmers living in 50 villages in Huixian Shaanxi Province were surveyed using a door-to-door questionnaire. The survey asked farmers questions regarding their awareness of the NRCMS and also the farmers’ opinions of the reimbursement and raising funds and concerns regarding the scheme’s sustainability. **RESULTS:** Most farmers hold a positive attitude towards the NRCMS. There are issues, however, in regard to the farmers’ trust in the scheme and preferred payment methods. Farmers place more trust inrage doctors rather than village cadres for fund collection. More than two thirds of farmers visit county-level hospitals directly when they require inpatient treatment. Not all hospitals and doctors fully comply with the NRCMS rules, and supplier-induced demand is still widespread. More than half the farmers stated that they worry that the NRCMS is unable to be sustained. Importantly the survey showed a high enrolment rate of 92% (95% CI, 91, 93) in a voluntary insurance scheme. **CONCLUSIONS:** Despite a

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