

productivity, and generational accounting, which accounts for a range of other government fiscal transfers to citizens. The possible produced value for a life-time term was assumed as calculating the total NPV depending on the life expectancy. CPD was assumed as the difference between NPV on the year of life expectancy and each decades as life years 50, 40, 30, 20, and 10 and new born. The economic values for the model were derived from World Bank, OECD, UNESCO or WHO. **RESULTS:** Possible produced value for a life-time term for Turkey was calculated as US\$ 483.298. Cost of pre-mature death per person was calculated as US\$ - 102.064, US\$ - 271.716, US\$ -441.679, US\$ -583.726, US\$ - 518.753,14 and US\$ - 483.986 for the life years new born, 10, 20, 30, 40 and 50 respectively. **CONCLUSIONS:** However the study was based on a hypothetical model that calculated the NPV with the taxes and spending in a life-time term, cost of premature death was calculated as the highest in early ages and was decreasing up to the retirement age. The results may be reference for the decision makers. Health policy makers may improve the access to the treatments in the early life years for the possible increased cost of premature deaths in Turkey.

PHP124

EXPOSURE TO POTENTIAL DRUG-DRUG INTERACTIONS IN TEACHING HOSPITAL OF SOUTH PUNJAB, PAKISTAN

Khan HMS¹, Butt H¹, Shah NH²

¹Islamia University Bahawalpur, The Islamia University of Bahawalpur, Pakistan, ²Bahauddin Zakaria University, Multan, Pakistan

OBJECTIVES: Drug-drug interaction is a common error in poly-medication and contributes a major part in adverse drug reactions. The aim of the present study was to evaluate the percentage of potential drug-drug interactions in the prescription in the region of South Punjab Pakistan prescribed by the medical practitioner. **METHODS:** A total of 100 prescriptions were included in this study. Institution based retrospective study was performed in Nishter Hospital Multan, Pakistan, the 3rd oldest medical institution of Pakistan, which has a capacity of 1800 beds and having a best facility to hold a large number of emergencies at a time. Prescriptions were collected to see the Drug - Drug interactions and compared with the standard reference of important DDI's. The potential drug-drug interactions were categorized according to their severity, effect and mechanism. **RESULTS:** The study showed that among 100 prescriptions (543 medicines), 41% of prescriptions have potential DDI's. Mostly prescribed drugs were the antibiotics (38%), and the drugs belonging to class analgesic were found to contribute mostly in drug-drug interactions (26.50%). The survey showed the total of 71 interactions and their severity level accounting as major (20.10%), moderate (63.4%) and minor (15.90). The mechanism by which the drugs interact with one another showed that there were pharmacokinetic (60.5%), pharmacodynamic (38.6%) and few of them interact by the mechanism which was not specified in the available literature (0.9%). **CONCLUSIONS:** Drug-drug interactions occur in poly-medication and need to be evaluated and monitored for the positive impact on the medication use system and improvement of quality of patient care. A clinical pharmacist with its accurate knowledge of drug, their effect on human organs and their interaction with other can monitor and manage these drug interactions.

PHP125

VALUE OF LIFE AND COST OF PRE-MATURE DEATHS WITH THE PERSPECTIVE OF PRODUCTIVITY AS NET TAX REVENUE: A COMPARISON IN ARGENTINA, BRAZIL AND MEXICO

Atikeler K¹, Tuna E¹, Yenilmez FB¹, Tatar M¹, Kockaya G²

¹Hacettepe University, Ankara, Turkey, ²Health Economics and Policy Association, Ankara, Turkey

OBJECTIVES: The Human Capital Theory emphasizes investments to the health care sector as an important element in achieving and sustaining economic development. Investments to health care sector improves macro and micro economic outcomes for the whole society. The aim of this study is to calculate the possible produced value for a life-time term (VLT) and cost of pre-mature deaths (CPD) from the productivity for Argentina, Brazil and Mexico. **METHODS:** Net present value (NPV) of the taxes and spending for each year were calculated. For calculating NPV in the government perspectives, two modelling approaches were combined, human capital modelling based on lives saved and lost productivity, and generational accounting, which accounts for a range of other government fiscal transfers to citizens. The possible produced value for a life-time term for each country were assumed as calculating the total NPV for each country depending on the countries life expectancy. CPD for each countries were assumed as the difference between NPV on the year of life expectancy and each decades as life years 60, 50, 40, 30, 20, 10. The economic values for the model of each country derived from World Bank, OECD, UNESCO or WHO. Discount rate and inflation for wages were taken as 3% per year for all countries. **RESULTS:** Possible produced VLT for each country were calculated as US \$ 716.945, US\$ 663.129 and US\$ 653.598 for Argentina, Brazil and Mexico, respectively. CPD per person for Argentina were calculated as US\$ -666.234, US\$ -657.861, US\$ -512.554, US\$ -338.675, US\$ - 164.722 and US\$ -24.615 for the life years 10, 20, 30, 40, 50 and 60 respectively. The trend was same for Brazil and Mexico. **CONCLUSIONS:** However the study was based on a hypothetical model that calculated the NPV with the taxes and spending in a life-time term, the results of each country were parallel.

PHP126

COMMUNITY PHARMACIST PERCEPTIONS OF GENERIC MEDICINES: A SURVEY IN TEHRAN

Mehralian G¹, Noee F², Yousefi N¹, Peiravian F¹

¹Shahid Beheshti University of Medical Sciences, School of Pharmacy, Tehran, Iran, ²Azad University, Tehran, Iran

Pharmaceutical expenditure as has been increasingly grown during the last decades so that policy makers have paid more and more attention to develop strategies to deal with this challenging issue. Pharmacists play an important role in health continuum to implement such strategies through dispensing and delivering generic medicines to consumers. So, the main objective of this study was to explore the perception of Iranian pharmacists regarding generic substitution, and also to explore how Iranian pharmacists think about patients' role, physicians' role and government

role in generic substitution. A cross sectional descriptive study involving the entire population of Tehran community pharmacies (n = 2000) was performed using a self-administrated anonymous questionnaire. A total of 1205 questionnaires were returned indicating a response rate of 60%. Regarding to the first section, 62% of participants agreed that pharmacists should be given right to generic substitution, and 45% viewed that the generic medicine are bioequivalent with brand ones. Majority of the respondents (73.6%) stated that, they do substitution once generic medicine is available. However, they think that patients, physicians and government have important role in generic substitution. More than half (75.5%) of pharmacists believed physicians' prescription behavior highly influenced by the marketing and promotion activities of foreign companies. 93% of respondents pointed to full coverage of generic medicines by providers as a strategy to generic substitution. Summary, evidences indicated that Iranian pharmacists have good insights regarding implementation and promotion of generic substitution strategy.

PHP127

BUILDING A "HIGH-ALERT/HIGH RISK MEDICATIONS REMINDER SYSTEM" TO IMPROVE PATIENT SAFETY

Kao LC

Mackay Memorial Hospital, Taipei, Taiwan

OBJECTIVES: This paper was aimed to introduce how we developed a "high-alert/high risk medications reminder system" operated in the computer system to improve medication safety in our hospital. **METHODS:** This reminder system was designed in a 2,400-bed health institute with 2,000 nurses, consisting of 12 nursing divisions and 75 units. The new module was added to the current BCMA system with VB. net. The functions of this computer system include seven steps. **RESULTS:** A satisfaction and cognition survey on the application of the new, computerized "high-alert/high risk medications reminder system" was done to MICU nurses (N=36). The survey response rate was 100%. The results showed high rate of positive support on the new system due to easy to access and easy to learn. The satisfactory rate comparing the old paper form system and the new computer system was 62.8% vs. 96.1%. More importantly, the "high-alert/high risk medications reminder system" appeared to reduce the administration error rate from 5 cases in 2011 to 0 cases in 2012. **CONCLUSIONS:** Our early experience showed that an efficient and user-friendly "High-Alert/High Risk Medications Reminder System" could be helpful for medical staffs to improve medication safety although a longer follow-up time to evaluate the efficacy of the computerized system is still needed before a final conclusion can be established. In addition, we are also keen to investigate whether this system could reduce the waste of time, expenditure, and manpower in a medical center in our future study.

PHP128

COST-EFFECTIVENESS OF TELEMEDICINE: LESSONS TO LEARN FROM AN INTERNATIONAL REVIEW

Bongiovanni-Delarozière I¹, Le Goff-Pronost M², Rapp T³

¹French National Authority of Health (HAS), Saint Denis La Plaine, France, ²Telecom Bretagne, Brest, Brittany, France, ³University of Paris Descartes, Paris, France

OBJECTIVES: At the global level the large deployment of telemedicine raises needs for cost-effectiveness evaluations. The objective of this literature review is to explore to what extent telemedicine innovations that were implemented in many countries were cost-effective. Specifically, we explore whether the model used to evaluate the cost-effectiveness can be adapted to the evaluation of telemedicine technologies. So, what answers can a review of the international literature relating to the medico-economic evaluation of telemedicine provide? **METHODS:** Following analytical reading of 286 articles published between 2000 and 2013, 74 studies that implemented economic evaluation of telemedicine are analysed. Three axis of analysis are considered: the act concerned by the telemedicine intervention, the medical speciality, the economic evaluation method implemented. **RESULTS:** The descriptive analysis showed significant heterogeneity in studies characteristics: economic analysis method, telemedicine applications, medical specialities, and organisational practices. The qualitative analysis underlines that most studies face methodological issues and provide reduced evidence of the economic impact of the telemedicine interventions. The telemedicine technologies are too individualised (by the context and the organisation) to be evaluated using the standards of cost-effectiveness analysis. **CONCLUSIONS:** This literature review did not allow proposing a classification for telemedicine practices identified as efficient, depending on the strategies compared, field of application or speciality, types of telemedicine or an organisation of care model. Despite all this, one focus can be the management of chronic diseases that remains a central topic at the international level. The increase in the number of medical specialities or fields of application concerned with telemedicine and the increased volume of activity necessitate the dissemination of methodological recommendations to promote the coherent development of economic evaluations. Our literature review shows that there is need to develop innovative methods to assess the cost-effectiveness of telemedicine technologies.

PHP129

ASSESSMENT OF VALIDITY OF AN INDICATOR MODULE IN IDENTIFICATION OF ADVERSE DRUG EVENTS IN PATIENTS OF MEDICINE DEPARTMENT

Mallayasamy S, Shrivaya J, Mehta A, Vilakkathala R

Manipal University, Manipal, India

OBJECTIVES: An indicator is a clue that helps a health care organization to identify adverse drug events and assess the overall harm that occurs from medical care within that organization. The main aim of the study was to investigate use of an indicator list for identification of adverse events in the health care setting studied. **METHODS:** The study was a prospective observational study in a tertiary care teaching hospital. The study mainly involves the review of medical records of patients in general medicine department who were admitted due to drug related problems with the help of trigger tool. When the presence of indicator is identified, those cases were thoroughly scrutinized to identify adverse drug events and confirm