co-workers' cost related to the employee absenteeism, for the employer was calculated using literature estimates. **RESULTS:** There were 25,282 respondents age 18-64 with valid responses. After adjusted for socio-demographic characteristics the regression analysis revealed that employees with one chronic condition on average missed 1.83 working days while those with 8+ chronic conditions missed 14.23 working days. The annual wage loss for employees was $244 and $2,143 respectively for 1 and 8+ chronic conditions. After adjusting for indirect costs the total employee and employer cost was $430 for 1 chronic condition and $3,778 for 8+ chronic conditions. **CONCLUSIONS:** Productivity cost associated with chronic conditions is increasing with additional number of conditions. Indirect costs associated with supervisors' and other co-workers' cost related to the employee absenteeism is significant and accounts for about ¾ of direct productivity cost.

PHP74

ESTIMATED HOSPITAL COSTS ASSOCIATED WITH PREVENTABLE HEALTH CARE-ASSOCIATED INFECTIONS IF HEALTH CARE ANTISEPTIC PRODUCTS WERE UNAVAILABLE

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OBJECTIVES: Healthcare-associated infections (HAIs) pose a significant healthcare and cost burden. This study estimates annual HAI hospital costs in the United States avoided through use of healthcare antiseptics (healthcare personnel hand washes and rubs; surgical hand scrubs and rubs; patient preoperative and pre-injection skin preparations). **METHODS:** A spreadsheet model was developed with base case inputs derived from published literature, with assumptions when data were insufficient. Five HAIs of interest were identified: catheter-associated urinary tract infections (CAUTI), central line-associated bloodstream infections (CLABSI), gastrointestinal infections (GI) caused by C. difficile, hospital- or ventilator-associated pneumonia (HAP/VAP), and surgical site infections (SSI). A national estimate of the annual potential lost benefits from elimination of these products is calculated based on the number of HAIs, the proportion of all HAIs that are preventable, the proportion of preventable HAIs associated with healthcare antiseptics, and HAI hospital costs. The model is designed to be user friendly and to allow assumptions about prevention across all infections to vary or stay the same. Sensitivity analyses provide low- and high-end estimates of costs avoided. **RESULTS:** Low- and high-end estimates of national, annual HAIs in hospitals avoided through use of healthcare antiseptics are 12,100 and 223,000, respectively, with associated hospital costs avoided of $175 million and $4.14 billion, respectively. **CONCLUSIONS:** The model presents a novel approach to estimating the economic impact of healthcare antiseptic use for HAI avoidance, with the ability to vary model parameters to reflect specific scenarios. While not all HAIs are avoidable, removing or limiting access to an effective preventive tool would have a substantial impact on patient well-being and infection costs. HAI avoidance through use of healthcare antiseptics has a demonstrable and substantial impact on healthcare expenditures; the costs here are exclusive of penalties or long-term outcomes for patients.

PHP75

PRESCRIPTIONS OF HERBAL MEDICINES BY GENERAL PRACTITIONERS AND SPECIALIST IN THEIR DAILY PRACTICE AND ITS IMPACT ON PATIENT OUT-OF-POCKET COST IN QUETTA PAKISTAN

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OBJECTIVES: This study aimed to assess the prescriptions of herbal medicines by general practitioners and specialist in their daily practice and its impact on patient out of pocket cost in Quetta city. **METHODS:** A retrospective study was conducted; prescriptions were collected from different sites in Quetta city. The prescription of different specialists and practitioners were collected which includes the specialty of Physicians, gynecology, pediatrics, general surgery, Orthopedics and dermatology. All prescriptions regardless of allopathic and herbal medicines were selected. Prescription parameters were recorded on a data collection form. The data was analyzed by using SPSS version 20. **RESULTS:** Total of 526 prescriptions were taken randomly from the available record. The demographics showed that majority of prescription 280 (53.2%) were of female. Four hundred sixteen (79.1%) prescriptions were those in which age of the patient was not mentioned. It is find out that only 66 (12.54%) prescriptions containing herbal medicines and majority of herbal medicines (n=18, 27.2%) were prescribed from pediatrics specialist. The average price of drugs in prescriptions contacting herbal medicines were Pk. Rs 1106 (USD 11) **CONCLUSIONS:** . The study concluded that herbal medicines are not prescribed usually, but when prescribed it cost more and put burden patient with an increase overall treatment cost.

PHP76

EFFECT OF HEALTH SECTOR FUNDING ON IMMUNIZATION SERVICES: FINDINGS FROM NIGERIA'S FEDERAL CAPITAL TERRITORY

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OBJECTIVES: Nigeria like other developing countries adopts routine immunization as a strategy to reduce the burden of preventable diseases but evidence suggests that coverage is inadequate. Adequate healthcare funding can improve the supply of vaccines, as well as ensure effective and efficient administration. The study aimed at exploring the impact of health sector funding on immunization services in Abuja (FCT), Nigeria. **METHODS:** Following ethics approval from the National Assembly Management, a mixed methods approach underpinned data collection and analysis in the study. Secondary data from six FCT area councils, from 2010 to 2012 were reviewed using documentary analysis. Additionally, a piloted and validated cross sectional survey was designed to collect the data from 650 randomly selected members of the public between December 2014 and March 2015. Data collected included demographic details and responses on issues pertaining to immunization and access to healthcare. Descriptive and inferential statistics were applied using SPSS. **RESULTS:** Analysis revealed that a 28% reduction in budgetary allocation from N18,592,631,805 in 2010 to N13,363,515,169 in 2012 led to a decline in immunization uptake in the FCT, from 89.4% coverage in 2010 to 79.9% in 2012. The survey revealed that only about half of the sample had taken steps to ensure that their children were immunized (51.9%). Almost a third (30.6%) indicated that they had to pay for routine immunization, and amongst those who had vaccinated their children, the majority (74.6%) preferred services from public hospitals ($p<0.05$). **CONCLUSIONS:** Due to the mixed methods approach employed, a relationship between health system funding and immunization coverage has emerged. Out of pocket payment for immunization is a significant barrier to access, particularly in poor populations. The confidence in public hospitals shown in this study can be leveraged to increase access to vaccines if the relevant capacity is provided.

PHP77

EPIDEMIOLOGY AND ECONOMIC BURDEN OF ADVERSE DRUG REACTIONS IN CLINICAL PRACTICE: ROLE OF THE PHARMACIST

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OBJECTIVES: To determine the prevalence and the economic burden of ADRs presenting to various hospitals in and around Guntur. **METHODS:** A prospective, cross sectional, observational study carried out over a 8 months period in 2015. The prevalence of ADRs, their economic burden from the hospital perspective, severity, and preventability were assessed using standard criteria. **RESULTS:** 127 patients was observed during the study period. Of these, 83 patients had ADR's (65.35%). The most common ADR's were anti-tubercular drugs induced hepatotoxicity, NSAID's induced ARF,warfarin induced hemorrhage, phenytoin toxicity calcium channel blockers induced edema , albendalzole caused agranulocytosis and ACE inhibitors induced dry cough, olanzapine caused diabetes mellitus, Augmentin caused rash.Using the Naranjo's algorithm, causality assessment was done and it was found that ,out of 127 ADRs ,46 were definite, 58 were probable, and 23 were possible ADR's . Severity was assessed by using the Modified Hartwig and Siegel scale, it was seen that 34 (26.77%) patients had mild ADRs while 65 (51.18%) had ADRs of moderate severity and 28 (22.04%) patients had severe ADRs. Schumock and Thornton scale was used to identify the preventability of ADR's . 39 (30.7%) ADR's were definitely preventable , 56 (44.09%) were probably preventable and 32(25.19%) were not preventable . The mean hospital stay of patients was 6 days and the average cost per patient suffered with an ADR was INR 5,376/- (USD 81.3$). **CONCLUSIONS:** Adverse drug reactions not only impose the additional economic burden on the patients but also impact their care givers and the health care system. Training of patients and prescribers for earlier identification and reporting of ADR's may lead to a reduction in hospitalization due to preventable ADRs and thus lessen their economic burden. clinical pharmacist has a role in conducting medication history interview and they have a role in dose tailoring based on the individual patient characteristics.

PHP78

COST OF ILLNESS STUDIES FROM THE PATIENT'S PERSPECTIVE: STUDY DESIGN, CHARACTERISTICS, AND COSTS

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OBJECTIVES: Cost-of-illness (COI) studies conducted from the patient's perspective provide important information regarding disease burden however there is limited information describing these studies. We characterize COI studies conducted from the patient's perspective based on the study design elements and cost burden. **METHODS:** We utilize data from a published review of COI methods covering a ten year period from 2005 to 2014. Articles were included in the study sample if the primary study perspective was the patient perspective and the abstract reported costs from the patient's perspective. The following information was extracted and reported: cost component, follow-up period, ICD10 aggregate disease category, funding source, continent of origin, publication year, and cost per patient (among studies reporting in US dollars). Cost components were categorized as: direct, non-medical, indirect, and intangible. **RESULTS:** Application of the inclusion criteria resulted in 106 studies (10%) that reported COI from the patient's perspective. The proportion that reported direct medical, direct non-medical, indirect, and intangible costs were: 85%, 78%, 51%, and 2%. The distribution of funding sources for pharmaceutical, government, other, none, and 'missing': 14%, 27% 34%, 20%, and 5%. The highest number of studies was from Asia (31%) followed by North America (24%). The lowest number of studies was from South America (4%). Infectious/parasitic diseases (41%) and neoplasms (11%) were the most commonly studied etiologies. The follow-up time ranged from 30 days to lifetime. The patient COI ranged from $2 to $79,134 during the 2005-2007 time-period, $7 to $54,871 during the 2008-2010 time-period and $23 to $110,713 during the 2011- 2014 time-period. **CONCLUSIONS:** Approximately one in ten COI studies adopted the patient's perspective and one in five patient-focused COI studies were unfunded studies. This study provides important baseline data regarding patient-focused COI studies and can be used to identify gaps in evidence to guide future research.

PHP79

PRICE ANALYSIS OF THERAPEUTIC BIOLOGICS APPROVED BY THE US FOOD AND DRUG ADMINISTRATION (1986–OCTOBER 2015)

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OBJECTIVES: This study assessed trends in average wholesaler prices (AWP) at US market entry for therapeutic biological drugs approved by the US Food and Drug Administration (FDA) in the period 1986–October 2015. **METHODS:** Defined daily doses (DDD) for the most common indications for therapeutic biologics approved by the FDA were derived from the FDA-approved labels. AWP trends from the