

positively on prescribing behavior at Ussher Polyclinic with significant changes between the pre-intervention and post-intervention periods.

#### PHP47

##### ABC ANALYSIS OF PHARMACEUTICALS IN A RESOURCE LIMITED RURAL HOSPITAL IN INDIA

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**OBJECTIVES:** The Pharmacy and Therapeutic Committee in the hospital planned to study the aggregate medicine use in the hospital. After implementation of the Essential Drug List (EDL) 2011, it was important to know the consumption and cost contributed by each pharmaceuticals in the list so that further revisions could be done on the list annually. **METHODS:** The study was conducted for one year using Always Better Control (ABC) analysis of pharmaceuticals in the EDL. Pharmaceuticals from the EDL were categorized for A (70%) B (20%) C (10%) categories. The calculations were done from a period of January 11, 2011 to January 11, 2012 using the data from the hospital billing database. **RESULTS:** The total annual drug expenditure (ADE) was Rs. 2,61,78,251. Out of 311 pharmaceuticals in the list, 47 (15%) were in A group, 60 (19%) were in B group and the remaining 204 (66%) were in C group. In the A group 45% of the pharmaceuticals were belong to ATC category J (Antimicrobials). Out of the top 10 pharmaceuticals, the costlier one was Anti D Immunoglobulin costing Rs. 1995. But it came on sixth position as the consumption was lesser than the other ones in the top. The first one was Lopinavir-Ritonavir combination with an annual cost of 13, 76529. Insulin was on fourth position with an annual expenditure just short of one million Indian Rupees. The top 10 include 3 anti-virals and 2 anti-bacterial preparations showing the high consumption and costs of the anti-microbial agents. The least unit cost in the A category was Rs. 0.18 for ferrous sulphate – folic acid combination. **CONCLUSIONS:** Antimicrobials consumed major resources of the charity hospital. Control on antimicrobial prescription with updated protocols and adoption of government free supply of anti-retroviral drugs will substantially reduce the hospital budget on medicines.

#### PHP49

##### THE IMPACT OF UNINSURANCE DURATION ON PRESCRIPTION DRUG AND EMERGENCY DEPARTMENT UTILIZATION

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**OBJECTIVES:** Uninsurance has been shown to reduce health care utilization, but this effect may vary by insurance duration. Moreover, some argue that attitudes toward health insurance and medical care confound the association between uninsurance and utilization, but are rarely examined because they are often unobserved. This study examined the effects of uninsurance duration on prescription medication (RX) and emergency department (ED) utilization after adjusting for individuals' attitudes towards health care and health insurance in US nonelderly adults. **METHODS:** Pooled data from panels 9 to 14 of the MEPS longitudinal data files (2004-2010) were used. Uninsured individuals were categorized by duration of uninsurance as 1-5, 6-11, 12-23 months and  $\geq 2$  years and were compared to two-year privately and two-year publicly insured individuals. Four attitudinal responses were explored, including acknowledgement that one is more likely to take risks than the average person and beliefs that one is too healthy to need insurance, that insurance is not worth the cost, and that one is able to overcome illness without professional help. Zero-inflated Poisson and zero-inflated negative binomial models were applied using complex survey design correction in STATA 12 to adjust for differences in sociodemographic characteristics and health status. Results were reported as incidence rate ratios with 95% confidence intervals. **RESULTS:** Compared to two-year privately insured, individuals who were uninsured  $\geq 6$  months used fewer RXs, and the reduction increased with uninsurance duration. All uninsured categories had more ED visits compared to two-year privately insured with no clear trend by duration. Including attitudinal variables had negligible effect on estimates of uninsurance. Those disagreeing with the attitudinal responses were found to utilize more RX; only those who disagreed with being able to overcome illness without help were found to have increased ED utilization. **CONCLUSIONS:** Uninsured had fewer prescription drugs but more ED visits. Attitudes towards insurance and medical care did not confound uninsurance effect.

#### PHP50

##### MEDICATION PRESCRIBING ERRORS IN A COMMUNITY SETTING

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**OBJECTIVES:** To determine the nature and types of medication prescribing errors in Egyptian community setting. **METHODS:** The preparation of this study involved a survey of 800 medical prescriptions of different specialties collected from outpatients in Egyptian community setting and analyzed to determine the nature and types of medication prescribing errors. **RESULTS:** Out of the 2241 errors observed, the lack of diagnosis and patient information were noted in 17.89% and 14.77% respectively making them the top most medication error. This was followed by drug-drug interactions (DDIs) were noted in 13.97% of prescription, illegible handwriting in 8.66%, lack of signature in 7.89%, treatment duration not mentioned in 7.05%, unspecified allergy in 5.44%, inappropriate dose in 3.75%, drug without dose in 3.44%, use of abbreviations in 3.03%, inappropriate/lack of indication in 2.85%, drugs without administration route in 2.81%, drugs with the same indication in 2.78%, dose higher than recommended in 2.10%, wrong frequency in 1.23%, drugs with wrong/inappropriate route in 1.22%, confusion with drug name in 0.76%, and inappropriate use of decimal points in 0.22% of prescriptions. **CONCLUSIONS:** 1) Most prescriptions investigated were inadequate in terms of legibility, use of abbreviations and

omitted items, entailing serious risks for patient safety; 2) All prescribing errors occurred are preventable; and 3) Electronic prescriptions, computerized physician order entry (CPOE), software assisted clinical decision may also significantly reduce prescribing errors.

#### PHP51

##### CHARACTERIZATION OF INJECTABLE MEDICATION ERRORS IN THE HOSPITAL SETTING: A RETROSPECTIVE DATABASE ANALYSIS

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**OBJECTIVES:** Injectable medications are common in the hospital setting and susceptible to errors that may harm patients. We conducted a descriptive analysis of injectable medication errors reported in the hospital setting in order to inform prevention efforts. **METHODS:** Year 2011 records documenting medication errors associated with injectable drugs were extracted from a national medication error reporting system representing ~1000 United States hospitals (Quantros Medmarx). Injectable medications were defined by administration routes "subcutaneous", "intravenous", "intramuscular", or "epidural". Records identifying inpatient and outpatient errors that reached the patient (National Coordinating Council Medication Error Reporting and Prevention Categories C-I) were analyzed. For each record, staff type (discovered error), physical location, stage within the medication use process (prescribing, transcribing, dispensing, administering, monitoring, procuring) and error type were analyzed. **RESULTS:** 5389 records identified injectable medication errors (4860 inpatient, 529 outpatient). Although seventeen different staff types discovered errors, 75% of records identified a nurse as discovering the error. Error locations most frequently reported were nursing units (59%), pharmacy (16%), ICU (10%), and emergency department (8%). The distribution of errors throughout the medication use process was: administering (57%), dispensing (20%), transcribing (12%), prescribing (8%), monitoring (2%) and procuring (1%). During administering, errors were most often typed as "omission error" (34%), "improper dose/quantity" (20%), "unauthorized/wrong drug" (10%), "wrong time" (9%), "wrong administration technique" (9%) and "extra dose" (8%). During dispensing (includes pharmacy preparation), errors were most often typed as "omission error" (25%), "improper dose/quantity" (20%), "wrong time" (17%) and "unauthorized/wrong drug" (10%). **CONCLUSIONS:** In 2011, the most frequent injectable medication errors were related to drug administering in nursing units and dose preparation and timing in pharmacy dispensing, with dose accuracy being a contributing factor in both locations. Prevention efforts can be targeted on medication use processes and hospital locations where errors occur most often.

#### HEALTH CARE USE & POLICY STUDIES – Equity and Access

#### PHP52

##### HEALTH INSURANCE COVERAGE IN THE HOUSTON-GALVESTON AREA UNDER THE PATIENT PROTECTION AND AFFORDABLE CARE ACT

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**OBJECTIVES:** The objective of this study is to project the number of nonelderly people who could gain coverage under the Patient Protection and Affordable Care Act (PPACA) for the period from 2014 through 2020 in the 13-county Houston-Galveston area region. **METHODS:** The 2008 and 2009 American Community Survey (ACS) Public Use Microdata file data were used to obtain current county-level data on the uninsurance rate in the region, weighted by age, income, and citizenship status. The impact of PPACA was projected based on estimates of growth in the size of targeted populations in each county and the anticipated responses of those populations to the major provisions of PPACA. To project coverage with PPACA, participation rates (the percent of the eligible population likely to enroll in Medicaid or purchase private insurance in an exchange or elsewhere) were applied to the projected number of uninsured in applicable groups. The participation rates are informed assumptions based on the best evidence available from public and private insurance studies currently available in the literature. **RESULTS:** We estimated county level projection in the 12-county Houston-Galveston region. The projections indicate that, if fully implemented, PPACA could cut the uninsurance rate in the region by half, from 26% in 2010 to 13% in 2020. This change translates into health insurance coverage for approximately 2 million additional people, from the current 4.2 million to a projected 5.9 million. The number of Medicaid enrollees could increase by an estimated 600,000 (a 79% increase), although private insurance coverage, which could increase by as much as 1 million enrollees (a 30% increase), will remain the primary source of coverage for most people. **CONCLUSIONS:** Coverage gains from PPACA will vary considerably by county, depending on the age-income-citizenship characteristics of the population, current uninsurance rates, and the rate of population growth.

#### PHP53

##### SUCCESSFUL RECRUITMENT STRATEGIES FOR WOMEN PARTICIPATION IN HEALTH RESEARCH STUDIES: A META-ANALYSIS

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**OBJECTIVES:** To evaluate and synthesize the evidence regarding effective and efficient interventions to enhance enrollment of women into health research study. **METHODS:** Comprehensive search done in PubMed, EBSCO, and ProQuest databases looking for studies evaluating different recruitment interventions (RI) for women participation in clinical trials/observational studies. Studies were