PHR47

ADVERSE DRUG EVENTS AND ELECTRONIC MEDICAL RECORDS: RESULTS FROM THE 2007-2008 NATIONAL AMBULATORY MEDICAL CARE SURVEY

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OBJECTIVES: The goal of this study was to evaluate the impact of electronic medical record (EMR) use on the frequency of visits due to an adverse event as reported in the National Ambulatory Medical Care Survey (NAMCS) 2007-2008 database. The specific objective was to determine the frequency of adverse events in patient visits that included the use of an EMR compared to visits without the use of an EMR. An adverse event was defined as an adverse outcome from medical or surgical care or an adverse drug event.

METHODS: The study design was a retrospective, cross-sectional, observational analysis of the NAMCS database from 2007-2008. Patient visits that resulted in an adverse event were selected from all established patient visits.

RESULTS: An adverse event occurred in 44,035,495 (2.6%) patient visits. Of these visits, 26,067,600 (1.5%) did not include the use of an EMR, while 17,967,893 (1.1%) included use of an EMR. The majority of visits including the use of an EMR were by female patients (59.4%), white patients (83.2%), or patients age 45-64 years (29.2%). Only 40.2% of established patient visits included the use of an EMR.

CONCLUSIONS: Adverse event frequency was lower in patient visits that utilized an EMR as compared to patient visits that did not include the use of an EMR. Increasing EMR use will allow healthcare professionals to further prevent adverse events.

PHR48

STATUS OF PHARMACIST AT COMMUNITY LEVEL: AN EXPLORATORY STUDY

In Quetta, Pakistan

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OBJECTIVES: To study the status of pharmacists working at community pharmacies in Quetta city, Pakistan. METHODS: A cross-sectional survey was designed to conduct this study. A questionnaire about status of pharmacists working at community pharmacies was constructed, content validated and used. Pharmacists were hired for data collection and analyses were done by SPSS 15.

RESULTS: All 415 community pharmacies of the city were approached and 392 responded (94.45%). Major respondents (81.25%) did not possess the basic requirement of Pharmacy degree although the community pharmacies were licensed under a qualified person. There were only 18.75% pharmacies were a qualified pharmacist possessing Pharmacy degree although the community pharmacies were licensed under a qualified person. This knowledge of medicines and generics was quite high (74.95%). Drug guides (45.25%) and information given by medical sales representatives (30.25%) played a key role in the generation of this information. It was also reported by 65.50% that as business is less profitable, pharmacists cannot afford a full time pharmacist where as 41.50% described unemployment/lack of opportunities in other sectors, the reason of running community pharmacies.

CONCLUSIONS: Pharmacist at the community level is important to minimize drug use problems. There should be strict monitoring by the concerned departments and local authorities in order to promote proper medication practices at community level.

PHR49

UTILIZATION AND COST OF THE HEALTH PLAN - EFFECTS OF SPIAL SUICIDAL BEHAVIOUR

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OBJECTIVES: To evaluate the effects of widowhood on the outpatient and hospital health services used by beneficiaries of a private health care plan in Brazil.

METHODS: Cohort study of beneficiaries of the health plan listed as married in the database of January 2007, consisting of 29,932 couples. In a follow-up period of 36 months was verified the date of death of a spouse, this being the date of registration in the database of January 2007, consisting of 29,932 couples. Thereafter began a follow-up of 36 months for verification of death of either spouse. During this period, entered the study at the date of death of spouse, 308 widows and 180 widows.

RESULTS: Of 38,785 patients, 7.17% died in the first year after spouse death. 6.25% of the patients who died in the first year had an OR of 21.49. There were differences in ORs by sex, annual income, and Health Zone.

CONCLUSIONS: The “healthy adherer effect” posits that part of the association between non-adherence and suboptimal health outcomes is the possible confounding effect of worse lifestyle behaviors of non-adherers. Our objective was to test the “healthy adherer effect” among US adults with chronic disease.

PHR50

MIXED EVIDENCE FOR THE "HEALTHY ADHERER EFFECT" IN A SAMPLE OF 22,070 ADULTS WITH CHRONIC DISEASE IN THE UNITED STATES

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OBJECTIVES: The “healthy adherer effect” posits that part of the association between non-adherence and suboptimal health outcomes is the possible confounding effect of worse lifestyle behaviors of non-adherers. Our objective was to test the “healthy adherer effect” among US adults with chronic disease.

METHODS: We conducted a cross-sectional survey of 22,070 adults with asthma, hypertension, diabetes, hyperlipidemia, osteoporosis, GDRD, depression, or anxiety from the Harris Chronic Disease Panel. Respondents were classified into one of three mutually-exclusive categories: (1) persisters (i.e., currently taking medication), (2) non-persisters (i.e., discontinued medication in the past year); and (3) non-fulfillers (i.e., did not obtain the first fill for a new prescription in the past year). Respondents also completed items on lifestyle behaviors: weight and height to derive BMI, smoking status, alcohol use, physical exercise, seatbelt use, and receipt of an influenza vaccination in the past year. Linear and logistic regression was used to model individual lifestyle behaviors on self-reported adherence status controlling for demographic characteristics.

RESULTS: Multivariate regressions revealed no statistically-significant associations between adherence status and BMI (continuous), weekly moderate exercise, weekly vigorous exercise, binge drinking, and obesity as defined by the BMI. Multivariate regressions revealed that non-persisters and non-fulfillers were significantly less likely to report having a flu shot in the past year (OR=0.76 and 0.73, respectively). Compared to persisters, non-persisters were more likely to be current smokers (OR=1.19, p=0.0043) and were less likely to always use seat belts (OR=0.80, p=0.0009).

CONCLUSIONS: Non-persisters and non-fulfillers differed from persisters on some, but not all, lifestyle behaviors. Future research should link both adherence behaviors and lifestyle behaviors to risk of mortality and hospitalization.

PHS51

METHODOLOGY AFTER SPOUSAL Bereavement in Beneficiaries of the Health Plan

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OBJECTIVES: To evaluate the mortality rate in beneficiaries of a health plan in Brazil after spouse death, compared with the expected in the population.

METHODS: Cohort study of beneficiaries of the health plan listed as married in 2007, consisting of 29,932 couples. Thereafter began a follow-up of 36 months for verification of death of either spouse. During this period, entered the study at the date of death of spouse, 308 widows and 180 widows.

RESULTS: The mortality rate observed in the group was compared with expected mortality for the population of reference, according to sex and age. Statistical analysis was considered the Standard Mortality Ratio (SMR), with evaluation of significance by the method of Poisson approximation. Observed in period 35 deaths in the group (7.17%). In the first 12 months after death the mortality was 14.59, with an expected 6.15, SMR to 1.95 (p = 0.047). The SMR in 24 months was 2.02 (p = 0.0026) and at 36 months of 1.85 (p = 0.0018).

CONCLUSIONS: This study showed higher than expected mortality to significant levels in people who have experienced the death of a spouse.

Mixes to support and healthcare for families who live grief can be an interesting alternative in the social aspects and somehow contribute to reduce the risk of mortality at the expected level for sex and age.

PHS52

INCREASE IN UNINTENTIONAL FATAL POISONINGS BY NOXIOUS SUBSTANCES IN KANSAS CITY, MISSOURI, FROM 1999 TO 2008

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OBJECTIVES: 1) To describe the trends of unintentional fatal poisonings by noxious substances in Kansas City, Missouri, from 1999 to 2008 and 2) to identify demographic-risk factors associated with unintentional fatal poisonings.

METHODS: This was a retrospective study using the death data for Kansas City, Missouri. The data included the cause of death, sex, race, age, annual income, and Health Zone for each individual. Unintentional fatal poisonings by noxious substances were identified by ICD-10 codes X40-X49. Age-adjusted death rates and age-specific death rates of fatal poisonings were calculated for every year. Chi-square tests were used to compare death rates for each demographic variable. A multiple logistic regression analysis was conducted to measure the odds ratio (OR) of fatal poisonings due to age, annual income, and Health Zone. Out of 38,785 deaths in all causes, 473 (3.2%) were identified to be due to unintentional fatal poisonings. Age-adjusted death rates from unintentional fatal poisonings increased from 7 per 100,000 population in 1999 to 14 in 2008, while the all-cause age-adjusted death rates declined from 1999 to 2008. From 1999 to 2003, the age group 25–44 years old had the highest death rate of the unintentional fatal poisonings; whereas from year 2004 to 2008, the age group 45–54 years old had the highest death rate. In the logistic regression, compared with the age group 55 years and older, the age group 35–44 years old had an OR of 4.06, and the age group 45–54 years old had an OR of 21.49. There were differences in ORs by sex, annual income, income, and use of health plan.
and Health Zone. CONCLUSIONS: Age-adjusted death rates of unintentional fatal poisonings increased for Kansas City, Missouri, from 1999 to 2008. Sex, age, annual income, and Health Zone, were risk factors for unintentional fatal poisonings.

PHPS3
A RAPID EVALUATION UNIT INCREASES EMERGENCY DEPARTMENT VISITS
OBJECTIVES: Emergency Department (ED) overcrowding is a national problem. This study evaluate the effect of a provider/nurse triage model (Rapid Evaluation Unit, REU) designed to improve the efficiency of the ED on ED patient volume and ambulance diversion hours. METHODS: Data on daily patient counts [inpatient, ED] and ambulance diversion hours for a single hospital in Baltimore were used to evaluate the impact of REU on hospital performance. Data covered 2008, the year before the REU was implemented, and 2009 during which the REU was implemented incrementally. The REU was operating on Monday-Wednesday from January 1st through March 31st, and then Monday through Friday from April 1st through December 31st. Regression models were estimated for the daily counts for inpatient and ED visits and ambulance diversion days controlling for time trend effects, day of the week and month of the year. A spline functional form was used to test the effects of the REU on pre-2009 time trends and to improve model fit. RESULTS: The REU significantly increased ED patient visits by 5.5 visits per day [p<0.01] without increasing the number of hours the hospital was diverting ambulance services due to over crowding [~0.83 hours per day, p>0.05]. For ED visits, all months exhibited significantly higher daily ED visit counts than in December, ranging from 1 to 3.6 visits per day. The early-week Wednesday exhibited significantly higher rates of ED visits than Saturday [range: 5-12 visits per day]. CONCLUSIONS: The REU was effective at increasing ED visits without increasing ambulance diversion hours. We theorize that this may be due to a reduction in the time spent by patients waiting for treatment.

PHPS4
THE IMPACT OF PHARMACIST-CONDUCTED MEDICATION RECONCILIATION WITH PATIENT COUNSELING AT HOSPITAL ADMISSION
Chen CC, Huang YF, Ho SW, Lu SH, Lin HY, Liu HP
OBJECTIVES: Medication reconciliation is the process of obtaining and maintaining a complete and accurate list of the current medication therapy of a patient across health care transitions. The combination of recorded and reported (assessed through patient counseling) medication use may increase the accuracy of medication reconciliation process. The objective of this study is to prevent drug-related problems and evaluate the effect of pharmacist-conducted medication reconciliation with patient counseling at hospital admission. METHODS: Patients who were admitted to Internal Medicine in local hospital, with age over 65 years, more than two comorbidities and receiving more than three regular medications were recruited. Patients with cancer, admitted to the ICU, discharged within 48 hours, or unable to communicate were excluded. Then, these patients were interviewed by pharmacists on admission and the obtained discrepancies were discussed with the physicians and drug therapy would be adjusted accordingly. The primary outcome of this study included the rate of unintentional discrepancies identified by pharmacists before and after patient counseling and the rate of recorded and reconciled medications resolved by pharmacists. RESULTS: Forty-nine patients were recruited in this study and 129 unreconciled medications were found between admission and discharge. The rate of unintentional discrepancies with rate of 58.7%. On the other hand, the rate of unintentional discrepancies was 16.3% of patients. A chi-square test was used to determine if there were differences between those patients with reconciliation with patient counseling and those patients who did not receive counseling. CONCLUSIONS: The rate of unintentional discrepancies among patients with counseling to further patients, such as surgical patients with patient counseling improved drug therapy and completeness and accuracy of allergy history. However, this study was only undertaken in patients admitted to Internal Medicine during one month. Implementation of medication reconciliation process with patient counseling to further patients, such as surgical patients may be considered.

PHPS5
THE INFLUENCE OF COST-EFFECTIVENESS ISSUES OF THE APPRAISED ORPHAN DRUGS ON RECOMMENDATIONS OF AGENCY FOR HEALTH TECHNOLOGY ASSESSMENT IN POLAND (AHTAPol)
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OBJECTIVES: The aim of the present analysis was to identify what was the influence of prices and the corresponding low cost-effectiveness estimates of the orphan drugs recommendations for reimbursement. CONCLUSIONS: The French HTA agency the Appraisal Committee for Medicinal Products and Medical Devices (HAS) has different ranges of acceptance and approval criteria for different medical technologies and services. Analyzing the price issue and the cost-effectiveness estimation of the orphan drugs recommendations is essential for providing the appropriate first option for the professional medical care.

PHPS6
DEMONSTRATING CLINICAL-EFFECTIVENESS USING INDIRECT AND MIXED TREATMENT COMPARISON ANALYSIS: A REVIEW OF MANUFACTURERS’ SUBMISSIONS TO THE NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (NICE)
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OBJECTIVES: Indirect and Mixed Treatment Comparisons (ITC/MTC) can provide valuable information for decision-makers, especially when direct comparisons between medicines are unavailable. The objective of this study is to investigate the methods and impact of ITC and MTC submitted by manufacturers on the NICE committee’s appraisal of pharmaceuticals. METHODS: A search of the NICE website was conducted for manufacturer submissions to determine if there were differences in the use of an ITC or MTC since 2006. Data were extracted and analysed for the type of network meta-analysis, number of trials, head-to-head trial evidence available, disease area, treatment comparisons, study selection justification, sensitivity analysis of trials included and outcome(s). A content analysis was conducted on Evidence Review Group (ERG) review of evidence synthesis, Appraisal committee’s comments and final decision. RESULTS: The search identified 24 submissions that included either a MTC or ITC. The issues most frequently raised by the ERG were lack of support for the outcomes, statistical description of methods and quality assessment of all trials included. The most frequent validity concerns were both clinical and statistical heterogeneity between trials, inappropriate methods of analysis, exclusion of relevant trials and sparse numbers of trials in the network. The committee considered all evidence and reported the analysis to be plausible on one occasion, stated concerns with the validity in 18 appraisals and did not directly comment on 5 occasions. Fifty eight percent of appraisals including an MTC or ITC resulted in a restricted decision. CONCLUSIONS: ITC and MTC analysis provides additional useful information for NICE appraisals but there has been wide variation in the reporting and validity of analysis performed. Reimbursement agencies should establish guidelines for the conduct of ITC and MTC to reduce this variation. The emerging ISPOR Good Research Practice guide on indirect treatment comparisons will provide a basis for these.

PHPS7
PATTERNS OF INSURANCE COVERAGE IN THE UNITED STATES: ANALYSIS OF THE 2004-2007 MEDICARE EXPENDITURE PANEL SURVEY (MEPS)
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OBJECTIVES: The objective was to understand the extent of the insurance-loss problem in the United States over a four-year period (2004-2007) by (1) determining the number (and proportion) of individuals who experienced loss in insurance coverage and (2) for those who experienced gaps in coverage, determining the pattern of those periods when they were without coverage. METHODS: This study was a retrospective, longitudinal data analysis using monthly data from the 2004-05, 2005-06, and 2006-07 panels of the Medical Expenditure Panel Survey (MEPS). Individuals were categorized on the basis of continuity of insurance coverage: a cohort of continuously insured individuals, a cohort of continuously uninsured people, and a cohort of people who experienced gaps (from one to 23 months) in coverage. The number and percent of individuals who were in each group for each panel were calculated. A chi-square test was used to determine if there were differences in the distribution of health insurance patterns between the panels, and ANOVA was used to determine if there were differences between the average gap length over the years. RESULTS: Poooling across the three panels, there were 157,641,235 (17.37%) individuals who experienced gaps in insurance coverage, 82,826,100 (9.12%) who were continuously uninsured for 24 months, and 2,571,391 (0.67%95%) who had insurance coverage over a two-year period. The proportion of continuously uninsured rose from 8.73% in 2004-05 to 9.23% in 2006- 07. The average gap length was 8.56, 8.44, and 8.54 months in 2004-05, 2005-06, and 2006-07 respectively. There were no significant differences across the panels in either the distribution of insurance coverage patterns or between the average gap length in health insurance coverage have remained stable over the past several years. Examination of changing patterns of insurance coverage will be important as health reform is introduced between now and 2014.

PHPS9
THE AVAILABILITY AND SIGNIFICANCE OF COST-EFFECTIVENESS DATA FOR INFORMING DECISIONS TO ADD NEW DRUGS TO THE NATIONAL LIST OF HEALTH SERVICES IN ISRAEL
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