

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.

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A RAPID EVALUATION UNIT INCREASES EMERGENCY DEPARTMENT VISITS

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OBJECTIVES: Emergency Department [ED] overcrowding is a national problem. This study evaluates 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 admissions, 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. Models were adjusted for autocorrelation and heteroskedasticity as needed. **RESULTS:** The REU significantly increased ED patient visit counts by 5.5 visits per day [$p < 0.01$] without increasing the number of hours the hospital was diverting ambulances 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 +9 to +28 visits per day. The early work week [Monday-Wednesday] also 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.

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THE IMPACT OF PHARMACIST-CONDUCTED MEDICATION RECONCILIATION WITH PATIENT COUNSELING AT HOSPITAL ADMISSION

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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 setting. 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 within 48 hours after admission. The unintentional 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 unreconciled medications resolved by pharmacists. **RESULTS:** Forty-nine patients were recruited in this study and 129 unreconciled medications were found between October 17 and November 18, 2010. The most common type of discrepancies was omissions with rate of 58.7%. On the other hand, the rate of unintentional discrepancies identified by pharmacist which may cause harm increased from 6.6% to 12.4% after patients counseling and 81.3% of drug-related problem was resolved after pharmacist intervention. Additionally, allergy history was established in 16.3% of patients. **CONCLUSIONS:** Pharmacist-conducted medication reconciliation 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 with patient counseling to further patients, such as surgical patients may be considered.

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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 appraised orphan drugs on AHTAPol recommendations. The main task of AHTAPol, established in 2005, is to assess and appraise all medical technologies and services claiming public money funding. Pharmacoeconomic evaluations of new therapies are required for all reimbursement decisions and orphan drug manufacturers cannot be exempted from providing a full pharmacoeconomic or HTA reports. Recommendations issued by AHTAPol have been based on Manufacturer's submission, additional officially published data, experts opinions and Polish public payer (National Health Fund) evaluation. **METHODS:** All recommendations issued by the AHTAPol until the end of 2010 were reviewed and analyzed from the official Web site of AHTAPol. The orphan drugs recommendations were identified and categorized into

types of recommendations (positive or negative) and reasoned. **RESULTS:** Among 286 AHTAPol decisions studied, 26 (9%) applied to orphan drugs. AHTAPol gave positive recommendations for reimbursement to 19 of 26 of orphan drug submissions (73%). 7 (27%) were not approved and received negative recommendations. Only in one case cost-effectiveness estimates and the corresponding high prices were emphasized as a main reason of negative recommendations. In 1 case the reason was connected with drug safety issues, while in 5 cases with insufficient evidence of efficacy. **CONCLUSIONS:** The cost-effectiveness issues of the appraised orphan drugs were not important argument in negative recommendations of the AHTAPol. In fact the insufficient evidence of clinical efficacy were the most important and therefore prevailing argument for issuing negative opinions of AHTAPol recommendations.

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DEMONSTRATING CLINICAL-EFFECTIVENESS USING INDIRECT AND MIXED TREATMENT COMPARISON ANALYSIS: A REVIEW OF MANUFACTURERS' SINGLE TECHNOLOGY APPRAISAL (STA) 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 manufacturers' submissions that reported to contain either 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 trial selection and outcome(s). The impact was assessed by analysing information 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 reporting of trial characteristics, 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 has provided 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.

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PATTERNS OF INSURANCE COVERAGE IN THE UNITED STATES: ANALYSIS OF THE 2004-2007 MEDICAL EXPENDITURE PANEL SURVEYS (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 average length of those periods of time 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:** Pooling 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 616,864,391 (67.95%) who had continuous 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 lengths. **CONCLUSIONS:** Patterns 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.

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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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