ATTITUDES OF CHAIN PHARMACY PERSONNEL TOWARD E-PRESCRIBING

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OBJECTIVES: This project was conducted as part of a federally funded national pilot to evaluate electronic prescribing in the community practice setting. The objective of this analysis was to measure the attitudes of chain community pharmacists and technicians toward e-prescribing and the processing of e-prescriptions.

METHODS: A self-administered survey was distributed to pharmacists and technicians practicing in 422 stores operated by seven chain pharmacy organizations in six states.

RESULTS: A total of 1094 surveys were returned from pharmacy personnel practicing in 276 stores. Pharmacy personnel rated e-prescribing as preferred to conventional prescriptions on each of seven desired outcomes of care. Pharmacists were found to view e-prescribing more positively than technicians (p < 0.05) for its net effect on three key outcomes: patient safety, effectiveness of care and efficiency of care. No differences were found between personnel classes in their overall satisfaction with e-prescribing as all were found to be moderately satisfied when comparing this technology to conventional prescribing and processing prescription. A total of 2235 written comments were received on the returned surveys. Of these, 57% (1277) mentioned negative features of e-prescribing, while 43% (958) were positive features. Among the positive features mentioned, improved clarity and/or legibility of prescriptions was the most frequently cited advantage of e-prescribing, followed closely by improved speed or efficiency of processing. Prescribing errors, particularly those containing a wrong drug or wrong directions were the most commonly cited negative feature of e-prescribing (34.1%).

CONCLUSION: Chain pharmacy personnel are generally satisfied with the current status of e-prescribing, but also perceive key weaknesses in how it has been implemented in physicians’ practices and their own organizations. From analysis of the data and follow-up interviews, twelve (12) best practice recommendations are offered to improve e-prescribing in the community setting.

EXAMINATION OF THE VALUE OF LAB DATA IN HEALTH CARE MANAGEMENT

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OBJECTIVES: The purpose of the study was to examine the value of the lab data in light of a participant’s self-reported, pharmacy claims, and medical claims information by comparing the distribution of the some common chronic conditions. A second purpose was to identify participants with different Body Mass Index (BMI) who were at risk for certain conditions and examine their usage of medications.

METHODS: Descriptive frequency distributions were conducted to address the research questions. The data for this study came from four sources of a large national pharmacy benefit manager's client: Health Risk Assessment (HRA) questionnaire which consists of about 50 survey questions, pharmacy claims, medical claims and lab data. The total sample size was 341. We compared the distributions of four disease conditions in self-reported, pharmacy claims, medical claims, and lab tests. Secondly, we examined the number of participants in three body mass index BMI categories who are at risk for three conditions, yet who have not been taking any medications for these conditions.

RESULTS: The results show that combined with the survey, pharmacy and medical data, the lab data helped to identify 84 participants at risk for diabetes, 95 participants at risk for dyslipidemia, 24 participants at risk for hypertension, and 8 participants at risk for kidney disease. These participants had abnormal lab values, but did not have a self report, pharmacy claims, or medical claims for the conditions. The results also show that the percentage of participants at risk for hypertension, dyslipidemia, and diabetes increased as their BMI goes up. In addition, a significant number of participants with abnormal lab values have not been on medications.

CONCLUSION: The lab data helps identify a group of at-risk participants who may need to be targeted for some kind of medical intervention. This has a potential cost-saving effect.
tion studies related to generic HRQOL instruments. To achieve parity with developments elsewhere regionally-relevant research in this field is a priority.

PHP33
PRELIMINARY EFFECTS OF A NEW NURSE-PHARMACIST CLINICAL PREVENTION PROGRAM ON MEDICATION USE
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The Healthy Families Succeed Pilot used nurse-pharmacists to test the effects of a home visitation, family-centered, clinical prevention intervention on health, service utilization and self-sufficiency. OBJECTIVES: 1) Describe the types of medication-related interventions of the teams; 2) determine factors associated with polypharmacy; and 3) determine the impact the teams had on adherence. METHODS: Design: randomized, two group comparison. Selection: Inclusion criteria: use of multiple state programs and polypharmacy (210 unique drugs/year). Exclusion: age ≥ 65, incarceration. Process: Two nurse-pharmacist teams participated. Nurses made home visits throughout the pilot study. Pharmacists reviewed records, made home visits and served as consultants to the nurses and families. Analysis: Interviews with the teams were used to collect data related to the interventions and families’ patterns of medication use. Regression analysis was performed on integrated health and social claims data to identify factors related to polypharmacy and adherence to medication regimens (measured by medication possession ratios). RESULTS: Thirty-five families were assigned to the study group and 33 in the control group. The teams found medication problems in 97% of the intervention households. Problems included: adherence (44%); lack of disease control (37%); administration/storage problems (30%); ADR/interactions (25%); and no indication for medication use (28%). Factors associated with polypharmacy included: increasing age, female gender, number of providers, number of ER visits, presence of a mental health or respiratory diagnosis, number of diagnoses, and county of residence. Medication fills/month and average MPR increased, while the number of unique drugs declined in the study group, relative to the control group. CONCLUSIONS: Most medication problems were related to lack of understanding. Poor adherence was commonly associated with lack of timely access to understandable information. Families used the education and support provided by the teams to improve adherence. Polypharmacy is an effective measure for identifying families in need of clinical prevention.

PHP34
EXAMINING THE ASSOCIATION BETWEEN EXPOSURE RATES TO CLINICALLY IMPORTANT DRUG-DRUG INTERACTIONS AND PHARMACEUTICAL SERVICES WITHIN AMBULATORY CARE SETTING IN VETERANS AFFAIRS MEDICAL CENTERS
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OBJECTIVES: The objectives of this study were to: 1) examine the exposure rates to clinically important drug-drug interactions (DDIs) within ambulatory care setting of the Veterans Affairs Medical Centers (VAMCs), and 2) examine the association between the structure of pharmaceutical services within the ambulatory care setting of the VAMCs and DDI exposure rates. METHODS: The study employed an observational, descriptive, cross-sectional design, consisting of a retrospective database analysis of pharmacy records to identify the exposure rate of potential DDIs, and a mailed questionnaire to pharmacy directors to collect information about the characteristics of pharmaceutical services within the ambulatory care setting of VAMCs. The time frame employed to identify DDI exposures was between July 1, 2003 and June 30, 2004. A multivariate regression model was used to assess the association between domains of pharmaceutical services and exposure rates to potential DDIs. RESULTS: Pharmacy records from 2,795,345 veterans who filled prescriptions at 128 VAMCs were analyzed. Overall, the rate of exposure to potential DDIs was 21.54 per 1,000 veterans exposed, ranging from 9.65 to 32.32. Of the 563 ambulatory clinics, 272 (48.3%) had pharmacist coverage. Anticoagulation clinics were the most commonly reported ambulatory clinics, and clinical pharmacy services were most commonly reported in therapeutic drug monitoring clinics. After controlling for the total number of pharmacists on staff, lower rates of potential DDIs were observed in VAMCs with a higher number of specialty ambulatory clinics and lower prescription volumes (p < 0.05). CONCLUSION: The study observed wide variation in the rate of exposure to clinically important DDIs within VAMC ambulatory care settings. Lower rates of exposure to potential DDIs were noted in VAMCs with a higher number of specialty ambulatory clinics and lower prescription volumes.

PHP35
BREAK-EVEN COST ANALYSIS OF MEDICATION THERAPY MANAGEMENT PROGRAMS FOCUSING ON ADVERSE DRUG EVENT PREVENTION
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OBJECTIVES: The effectiveness of Medication Therapy Management Programs (MTMP), as defined in the Medicare Modernization Act, at reducing adverse drug events (ADEs) may vary depending on the MTMP structure and delivery method. The cost-effectiveness of such programs are not known. To estimate the break-even and cost-effectiveness thresholds for MTMP specialized in ADE prevention in ambulatory patients from a third party payer perspective. METHODS: A Markov model was developed using a hypothetical cohort of 1,000 patients. A systematic review was conducted to estimate probabilities and costs for preventable and non-preventable ADEs, and the associated permanent disability and mortality. Break-even and cost-effectiveness analyses were conducted by altering the effectiveness of the MTM program at reducing preventable ADEs and calculating 10-year costs, life expectancy, and break-even points. RESULTS: Probabilities and costs were primarily obtained from a cohort study of all Medicare enrollees (30397 person-years of observation) cared by a multispecialty group practice during a 12-month study period. As the relative risk reduction of the MTM program on preventable ADEs was varied from 0.1 to 1, the 10-year cost offset (break-even cost) of the MTM program varied from $73,500 to $272,900 per 1000 persons, life years gained varied from 0.9 to 8.2 per 1000 persons, healthy life years gained varied from 1.3 to 11.6 per 1000 persons. Assuming a cost-effectiveness threshold of $100,000, the 10-year costs of the MTM program could approach $160,500 (RRR = 0.1) to $1,432,900 (RRR = 1) per 1000 persons to be considered cost-effective. CONCLUSION: The break-even points for MTM programs specialized in ADE prevention were realistic and attainable. Generally speaking, MTM programs should be viewed as cost-effective. The cost-effectiveness of individual programs will depend heavily on the effectiveness of such programs in reducing preventable ADE’s, as demonstrated by the wide range in break-even points.