Podium Presentations

(Abstracts in alphabetical order by first author’s last name)
COMMUNITY PHARMACISTS' MONITORING OF CMS STAR RATINGS MEASURES USING THINK ALOUD PROTOCOLS

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Background: The treatment of chronic disease in the United States is at the forefront of initiatives to improve quality of health care. The increase in the number of baby boomers has resulted in higher costs to Medicare. The Center for Medicare and Medicaid Services (CMS) created the star ratings system’s pharmacy measures to improve the value of care through decreased costs and support of chronic disease management and patient safety.

Objective: To explore community pharmacists’ process, needs, and workflow issues regarding monitoring CMS star ratings measures.

Methods: Community pharmacists with an active Oklahoma license and one-year of work experience were targeted for Think Aloud Protocols (TAPs) to gather pharmacists’ procedures for monitoring CMS star ratings measures. A recruitment email was sent or phone call made to pharmacists from a list provided by the Oklahoma Pharmacists Association requesting participation in TAPs. Each TAP was audio recorded and transcribed to documents for thematic analysis by triangulation. Analysts agreed on common themes, illuminated differences in findings, and saturation of the data gathered.

Results: Five TAPs were performed among three independent pharmacy owners, one multi-store owner, and one chain-store administrator. Thematic analysis revealed 15 themes referenced from nearly 1,800 nodes. Most referenced themes were: 2nd verbalization (251), process (243), information (212), and pharmacy staff (201). Other themes included: adherence (108), technology (101), workflow issues (101), needs (79), and high-risk medications (60). A 4-step process for monitoring CMS star ratings measures among participants was identified. Common needs expressed by participants included improved software, more staffing, and documentation of interventions. Common workflow issues expressed by participants included star ratings score lag time, patient trust issues, and educating staff.

Significance: Dissemination of the process, needs, and workflow issues associated with monitoring of CMS Star Ratings measures will benefit community pharmacists.
PRIMARY MEDICATION NON-ADHERENCE: THE EFFECT OF A PHARMACIST-ADMINISTERED INTERVENTION IN A PHARMACY GROCERY CHAIN
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Objectives: To develop and assess the effectiveness of a multipronged, tailored intervention to reduce primary medication non-adherence (PMN) in retail pharmacies; and to identify reasons for unclaimed prescriptions in retail pharmacies.

Methods: Study investigators designed the PIC-UP (Patient-Pharmacist Interactive Communication Using the Phone) Intervention, in which a pharmacist called the targeted patient, assessed the reason for the unclaimed prescription, and then delivered a tailored message to encourage picking up the prescription. Retail stores (n=84) were randomly assigned to the intervention plus standard of care or just standard of care. One year of transactional data before and after the intervention were collected and PMN rates were calculated using the Pharmacy Quality Alliance PMN measure. Reasons for unclaimed prescriptions was also collected from calls to patients.

Results: The average PMN rate for all stores was 5.42% (SD 1.71) in the pre-intervention phase, and 4.98% (SD 1.74) in the intervention phase. During the intervention phase, PMN rates of 5.03% (SD 1.70) and 4.94% (SD 1.79) were observed in control and intervention stores, respectively. The effect of the intervention on PMN rates, after controlling for pre-intervention PMN rates, store volume, median household income and education in the region surrounding the pharmacy, was found to be statistically insignificant. Analysis of call data showed that lack of awareness of a prescription at the pharmacy and financial issues were the most common reasons for an unclaimed prescription.

Conclusion: Overall PMN rates declined over the study period, although results suggest that a pharmacist-led intervention in addition to existing automated reminders does not significantly affect PMN rates. Future research is necessary to determine how pharmacists can reduce PMN, as well as the implications of pharmacist-led interventions on medication persistence and patient satisfaction.
RELIABILITY AND VALIDITY OF SF-12V2 IN MEDICAL EXPENDITURE PANEL SURVEY DIABETES POPULATION
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QUALITY OF LIFE IN POSTMYOCARDIAL INFARCTION PATIENTS
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Background: Myocardial infarction (MI) negatively impacts patient’s quality of life (QoL). After acute MI, patients may still have impaired QoL. QoL has become important outcome measure after acute MI (post-MI). Less is known about the QoL and its predictors for post-MI.

Objective: This study examined QoL and its predictors for individuals with post-MI using a large national survey database.

Methods: Cross-sectional panel data from Medical Expenditure Panel Survey (MEPS) for 2003-2013 were used to identify individuals who had MI. QoL was assessed using the physical component summary (PCS) and the mental component summary (MCS) scores of the SF-12. Propensity score matching on demographics, social economic status, and comorbidities was performed to compare the PCS and MCS scores between individuals who had MI and those who did not (control). Generalized linear model with logit link and gamma distribution was fitted to identify predictors of QoL.

Results: Of the 4493 post-MI individuals, 3559 were 1:1 matched to the control group. Average age of post-MI individuals were 46 years (SD=18). 54% were females. We found that post-MI individuals reported significantly lower PCS scores (difference=-0.9, 95%CI [-1.6, -0.1]; p = 0.02) when compared to the control group. The difference in MCS was insignificant between post-MI individuals and the control group. Predictors of poor PCS include middle age (40-64 vs. 18-39 years old), female, low income, low education (less than high school), and comorbid conditions (post-stroke, hypertension, COPD, hyperlipidemia, diabetes, and arthritis). Predictors of poor MCS include young age (18-39), Hispanic ethnicity, less than high school education, and comorbid conditions.

Conclusion: Post-MI individuals had reduced QoL when compared to the control group. Socioeconomic status and comorbidities were determinants of impaired physical and mental QoL. Strategies to improve QoL after treating acute MI are warranted.
Background: Previous evidence suggests that pharmacist interventions improve patient outcomes in management of chronic conditions. An MTM Pilot program was implemented to reduce adverse drug events and related medical costs for high-risk Texas Medicaid patients with asthma and COPD.

Objectives: To describe need for MTM intervention, type of MTM services provided, and the outcomes of provided MTM services.

Methods: Patients aged 5-63 years with high risk asthma/COPD who were continuously enrolled one year pre- and post-index (date of first MTM encounter) were eligible to receive up to five pharmacy consultations. Pharmacists performed comprehensive medication reviews (CMRs), reviewed inhaler technique, provided peak flow meters, educated patients regarding adherence and proper medication use. Subsequent follow-ups were conducted via telephone and/or face-to-face at one-month intervals.

Results: Over a 9-month study period, 1/16/2014-9/9/2014, 28 pharmacists and 63 patients participated in the program. The majority (81.0%) had 1-2 pharmacist visits, while the remaining (19.9%) had 3-5 pharmacist visits. The major reasons for pharmacist interventions were complex drug therapies (53.2%), medication underuse (8.6%), and need for drug therapy (8.6%). 53.2% of the cases involved the pharmacist providing CMRs, whereas 20.1% were interacting with the patients’ prescribers. The most frequent outcomes were associated with completing CMRs (46.7%), altering medication adherence (6.5%) and resolving therapeutic issues (6.5%). Of the 139 problems, 108 were resolved, resulting in a 77.7% acceptance/resolution rate. Most of the unresolved problems (22.3%) were due to patient refusal (11.5%).

Conclusions: Pharmacists were instrumental in identifying and intervening with patients primarily focusing on helping patients understand the differences between controllers and relievers and the importance of adherence to controllers. The resolution rate was higher than reported overall physician acceptance rates of 50%. Our results indicate that the provision of MTM services to Medicaid recipients with asthma and COPD resulted in improved patient outcomes.
INCREMENTAL HEALTHCARE EXPENDITURES ASSOCIATED WITH DEPRESSION AMONG INDIVIDUALS WITH CUTANEOUS LUPUS ERYTHEMATOSUS (CLE)

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BACKGROUND: Cutaneous Lupus Erythematosus (CLE) is a dermatologic autoimmune disease marked by photosensitive lesions and patients have been reported to experience higher rates of mental health conditions, especially anxiety and depression.

OBJECTIVES: To estimate the incremental healthcare expenditures and utilization associated with depression among adults with CLE.

METHODS: Using the 2013 Medical Expenditure Panel Survey (MEPS), CLE patients with and without depression were compared to determine differences in: a) healthcare utilization – inpatient, outpatient, office and emergency room (ER) visits, and prescriptions filled; and b) expenditures – total costs, inpatient, outpatient, office-based, ER, and prescription medication costs, and other costs using demographically and comorbidity adjusted multivariate models (age, gender, race/ethnicity, marital status, poverty category, smoking status, and Charlson comorbidity index).

RESULTS: Adults with CLE and depression had more inpatient visits (0.50 vs. 0.29, p<0.001), outpatient visits (2.05 vs. 1.15, p<0.05), office-based visits (22.09 v 16.50, p<0.001), ER visits (0.57 vs. 0.24, p<0.001), and prescriptions filled (53.62 vs. 23.74, p<0.001) than those without depression. They also had higher average annual total expenditures ($18,824 vs. $10,058). Thus, the annual total incremental medical expenditure associated with depression was estimated as $8,766(SE: $4,215; p <0.001) per person. Office-based visit cost, estimated at $2,171 (SE: $1,365; p<0.001) accounted for the largest proportion of the overall incremental expenditures, followed by inpatient cost at $2,780 (SE: $2,009; p<0.05).

CONCLUSIONS: Among adults with CLE, depression was associated with higher healthcare expenditures. Early diagnosis and treatment of depression in CLE patients may reduce total expenditures and utilization in this population.
LEVERAGING BEHAVIORAL ECONOMICS-BASED INTERVENTIONS TO IMPROVE MEDICATION ADHERENCE

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CLINICAL AND ECONOMIC OUTCOMES FOR HEPATITIS C AND HIV/AIDS COINFECTION WITHIN INPATIENT SETTINGS
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Background: Approximately 25% of U.S. HIV patients are coinfected with Hepatitis C virus (HCV) and have higher risk of morbidity, mortality, and healthcare utilization. Few studies have examined this burden.

Objectives: To assess clinical and economic outcomes for discharges involving HIV/HCV coinfection from 2003-2012.

Methods: Cases involving HIV/AIDS and HCV coinfection were identified from the AHRQ Healthcare Cost and Utilization Project and stratified into: 1) AIDS monoinfection; 2) AIDS/HCV; 3) HIV monoinfection; and 4) HIV/HCV. Outcomes included mortality, charges, and lengths of stay (LoS). Multivariable models assessed the relationship between outcomes and demographic, hospital, and clinical characteristics.

Results: HCV coinfection comprised 17.9% of HIV/AIDS cases (n=416,891 of 2,334,682). Coinfected cases averaged 47.4±8.9 years and 68.0% were male, with charges and LoS of $43,490±71,627 and 6.5±8.4 days, respectively. Among those with advanced AIDS and HCV sequelae, mortality was 21.4%, charges were $90,832±66,982, and LoS was 11.5±6.3 days. Multivariable analyses suggested that odds of mortality for active AIDS/HCV coinfection cases decreased by 13% from 2003-2007 (OR=0.87, 95%CI:0.82-0.91) and 16% from 2008-2012 (OR=0.84, 95%CI:0.79-0.90) (p<0.05), though not for asymptomatic HIV/HCV cases (p>0.05). No annual differences in either charges or LoS were observed. Rural residence was also associated with higher odds of mortality in asymptomatic HIV/HCV coinfection cases from 2003-2007 (OR=2.32, 95%CI:1.29-4.20) and 2008-2012 (OR=3.01, 95%CI:1.31-6.95) (p<0.05).

Conclusion: HIV/HCV coinfection in hospital settings imparts a large burden of illness. As the odds of inpatient death among HIV/HCV coinfections did not decrease over time, aggressive screening and clinical intervention may be warranted in those with asymptomatic HIV, particularly in rural locations.
DEVELOPMENT OF THE SUBTLE ADHD MALINGERING SCREENER (SAMS) TO IDENTIFY MALINGERING OF ADHD SYMPTOMS
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Background: The use of prescription stimulants such as Adderall and Ritalin among college-aged adults is estimated to be between 5% and 50%, and has been increasing over the past few years. Students also actively seek out ADHD diagnoses in order to receive prescriptions for stimulants and special accommodations reserved for those with learning disorders. Because ADHD is usually diagnosed by self-report, malingering of symptoms has been shown to be easy.

Objectives: This study aims to develop a behavioral self-reported subtle scale, the Subtle ADHD Malingering Screener (SAMS), for use in the primary care setting to identify malingering among individuals reporting symptoms of ADHD.

Methods: Potential items for SAMS were developed using the Accuracy of Knowledge framework. The item pool was administered to respondents with and without ADHD, recruited from the population of undergraduate students at the University. Respondents without ADHD were randomized into two groups and instructed to either answer the questions honestly, or fake ADHD on the questionnaire. Respondents were offered extra credit as incentive for their participation. Items that did not distinguish well between the fake ADHD group and the other groups were eliminated. The remaining items were entered into a Principal Components Analysis (PCA) to identify the factor structure of the scale. A second wave of data collection, similar to the first, will be conducted to confirm the factor structure of the scale.

Results: Data collected from 278 participants showed that 38 items can significantly distinguish malingers. The final factor solution from PCA comprised of 10 items distributed onto two factors: the psychological factor, and the academic factor.

Conclusions: Further research is needed to develop a screener that can help prevent malingering of ADHD, and abuse of prescription stimulants.
THE INTENTION TO USE E-CIGARETTES AND ITS ASSOCIATION WITH CIGARETTE SMOKING INTENTION AND HABITS AMONG US YOUTH
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AID-IN-DYING PRACTICE IN THE UNITED STATES LEGAL AND ETHICAL PERSPECTIVES FOR PHARMACY
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