DM2 12-MONTH OUTCOMES OF A PHARMACY-PROVIDED TELEPHONE MEDICATION THERAPY MANAGEMENT (MTM) PROGRAM Moczygemba L1, Barker JC2, Gabrillo E1

1Virginia Commonwealth University, Richmond, VA, USA, 2University of Texas at Austin, Austin, TX, USA, 3Scott & White Health Plan Prescription Services, Temple, TX, USA

OBJECTIVES: Determine if Medicare Part D beneficiaries who received telephone MTM services had: 1) Decreased medication/health-related problems (MHRPs); 2) Improved medication adherence; and 3) Decreased total Part D drug costs when compared to a control group. METHODS: Part D beneficiaries from a Texas health plan participated. The Andersen Model was the theoretical framework. Independent variables were: predisposing factors (age, gender, and race), and need factors (number of medications, chronic diseases, and medication regimen complexity (MRC)). The health behavior (intervention) was MTM utilization. Outcomes were change (from baseline to 12-month follow-up in: 1) Number of MHRPs, 2) Medication adherence measured by the medication possession ratio (MPR), and 3) Total drug costs. Descriptive and inferential statistical analyses were conducted.

RESULTS: The intervention (n=60) and control (n=60) groups were not statistically different regarding age (71.2±7.7 vs. 73.9±8.0), medications (13.0±3.2 vs 15.2±3.4), chronic diseases (6.5±3.2 vs 7.0±2.1) or MRC (21.5 [range 8-43] vs 22.8 [range 9-42.5]), respectively. The majority (51%) were male in the intervention group but only 28% were male in the control group (p=0.009). At baseline 48±2.7 (intervention group) and 9:1±2.9 (control group) MHRPs were identified and 2:2±0.0 and 7:3±3.0 MHRPs remained at the 12-month follow-up, respectively. Multivariate regression revealed that MHRPs decreased significantly (p=0.0120) among the intervention group when compared to the control group. There were no significant predictors of change in MPR. Total drug costs (change from baseline to follow-up) decreased by $588±$2,086 in the intervention group and increased by $2077±$1,752 in the control group. A t-test indicated the cost difference between the 2 groups was significant (p=0.03), but the multivariate regression did not indicate significant predictors of change.

CONCLUSIONS: A telephone MTM program positively impacted MHRPs, medication adherence measured by the medication possession ratio (MPR), and Total drug costs. Further research should focus on understanding predictors that impact adherence and cost-related MTM outcomes.

DM3 IMPACT OF MONTHLY PRESCRIPTION CAP ON MEDICATION PERSISTENCY AMONG PATIENTS WITH DIABETES, HYPERTENSION, OR HYPERLIPIDEMIA Wang CC, Wei D, Farley J

University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

OBJECTIVES: To evaluate the effect of a policy implemented in the Louisiana Med- icaid program that limited the maximum reimbursement of eight prescription drugs per month on medication persistence in patients with diabetes, hypertension, or hyperlipidemia. METHODS: A pre-post non-equivalent comparator group design was applied using Medicaid claims data from 2001-2003 for Louisiana (LA) and Indiana (IN) to identify patients with the specified conditions and their medication persistence. Persistency was defined as the number of days a prescription was filled which was identified as a gap in treatment 30 days or longer. To capture pre-intervention trends in medication persistence, we compared “pre-policy” cohorts in LA and IN followed for ten months prior to policy adoption (March 3, 2002 to December 3, 2002) to “policy” cohorts for the following eight months after policy implementation (March 3, 2003 to December 31, 2003). All incident cohorts were identified using a six-month washout period. We used Cox-proportional hazard models to compared discontinuation rates in LA and IN across the pre-policy and policy period cohorts.

RESULTS: For patient characteristics and comorbidities that showed significant differences in persistency were found prior to policy implementation between LA and IN for any of the three chronic conditions. In the post-policy period, all cohorts had significantly lower persistency in LA than in IN. Patients in LA with diabetes and hypertension were 1.38 (p=0.03) and 2.00 (p=0.01) times more likely to discontinue their medications at day 30 of the follow-up, respec- tively. The hazard ratios declined to 1.21 and 1.67 for diabetes and hypertension persistency, respectively after 260 days. The hazard ratio of discontinuation for pa- tients with hyperlipidemia in LA was constantly 1.31 (p=0.01) across the follow-up period. CONCLUSIONS: Patients with chronic conditions subject to medication caps may be vulnerable to medication discontinuation. Policy makers need to consider carefully when implementing such policies on patients with chronic conditions.

DM4 EVALUATION OF CLINICAL LABORATORY-PHARMACY LINKAGE DECISION SUPPORT IN THE USE OF POTASSIUM SUPPLEMENTS Yu S, Liao W, Lin FJ, Lambert B

University of Illinois at Chicago, Chicago, IL, USA

OBJECTIVES: Clinical decision support (CDS) has been utilized to link laboratory and pharmacy data to optimize medication therapy. This study aimed to evaluate the effect of synchronous and asynchronous CDS in inpatients receiving potassium supplements. METHODS: The synchronous and real-time asynchronous lab-phar- macy CDS was implemented in our 450-bed academic teaching hospital in June 2003. Non-hemolyzed serum potassium [K+] values and medication orders for potassium supplements were monitored for 6 months prior to and 8 months following CDS implementation were analyzed. A Cox proportional hazards model was constructed to assess the effect of CDS in improving clinicians’ response time at the presence of hyperkalemia. Potas- sium ≥5.0 mEq/L and >5.4 mEq/L were used to define high normal and elevated hyperkalemia. Response time was measured from the time of the first instance of hyperkalemia to cancelation of the medication order. Response time was censored at the time of a consequent normal potassium or patient discharge. RESULTS: In the pre-CDS period, 12.5% (1439/11512) of the potassium supplement orders were followed by at least one abnormal serum potassium value; whereas in the post-CDS period, 3% (103/11505) of the potassium orders were followed by an abnormal potassium value. The median time from potassium results to CDS decision support was 44 minutes (range 5-880) in the pre-CDS period and 12 minutes (range 5-480) in the post-CDS period (p<0.0001). CONCLUSIONS: Those with persistent, life-threatening hyperkalemia were posted during 6am-noon vs. midnight-6am (HR=1.36, p=0.001), while the response time was longer if the result was posted during noon-6pm (HR=0.73, p=0.004) or 6pm-Midnight (HR=0.57, p=0.001). Patient age, sex, race, and the severity of hyperkalemia had no significant effect on clinicians’ response time.

POTIDI SESSION I: EMPLOYEE HEALTH & PRODUCTIVITY OUTCOMES RESEARCH OR1 THE ASSOCIATION BETWEEN SELF-PERCEIVED COGNITIVE DIFFICULTIES AND LEVEL OF DEPRESSION AMONG EMPLOYEES WITH CURRENT DEPRESSION Lawrence C1, Roy A2, Haririkshnan V3, Yu S4, Dabbous O2

1Fleming: American Consulting Services, Palm Harbor, FL, USA, 2Trudeau Pharmaceuticals International, Inc., Deerfield, IL, USA

OBJECTIVES: Many facets of job performance may be impaired by depression. Impaired performance by depressed employees may be attributed to self-perceived cognitive difficulties. The goal of the current study was to assess self-perceived difficulties in cognition experienced by employees with depression. METHODS: Individuals (≥18 years of age) employed full-time with diagnosed depression (excluding bipolar disorder) completed a Web-based computer-generated 25-minute survey in February 2010 (study population identified by Harris Interactive). The patient survey used the Perceived Deficits Questionnaire (PDQ) to assess self-perceived difficulties in memory, attention, planning and organization, and concentration using a 0-20 scale, where higher scores indicate greater impairment. The Patient Health Questionnaire (PHQ-9) was used to assess depression severity. The impact of depression on the PDQ scores was assessed using a trend test based on an analysis of covariance with age, gender, and PHQ-9 score as independent variables.

RESULTS: A total of 1051 employees were included in the analysis (58% female, mean age 47 yrs, and 38% held professional employment). PHQ-9 scores indicated moderate to severe depression. The PDQ scores were positively associated with PHQ-9 scores showed that perceived cognitive functioning worsened progressively with increasing severity of depression symptoms (p<0.0001). PDQ scores showed the most impairment in the attention/concentration and planning/organization scales in the severely de- pressed (12.26 and 12.25, respectively) compared with non-depressed subjects (4.45 and 3.75, respectively).

CONCLUSIONS: In full-time employees experiencing depression, self-perceived cognitive difficulties worsened with increasing severity of depressive symptoms.

OR2 ASSESSING THE RELATIONSHIP BETWEEN MEDICATION ADHERENCE AND EMPLOYEE PRODUCTIVITY Loepke R1, Haulle V2, Jonett K3

1U.S. Preventive Medicine Inc., Brentwood, TN, USA, 2Aetna, Rosmont, IL, USA, 3Integrated Benefits Institute, San Francisco, CA, USA

OBJECTIVES: This study examined how adherence to prescribed medications for specific chronic conditions affects lost work time and on-the-job performance in an employed population. METHODS: Patients aged 18 to 64, with at least one of four conditions – CAD, hypertension, Type II diabetes, or depression – were identified from claims data for employees of five employers. Patients had also completed a depression, self-perceived cognitive difficulties worsened with increasing severity of depressive symptoms.