be used by health care decision makers to identify patients who are most likely to be non-compliant with dyslipidemia therapy and help focus medication compliance efforts. A secondary analysis using corresponding lab data is projected.

**PCV96**

**IMPACT OF MEDICARE PART D ON ADHERENCE AND PERSISTENCE WITH STATIN MEDICATIONS FOR TEXAS DUAL-ELIGIBLE BENEFICIARIES**

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**OBJECTIVES:** To compare dual-eligible patient out-of-pocket costs, adherence (medi-
cation possession ratio), persistence, and average number of gap days in therapy before and after patients enrolled in Medicare Part D. METHODS: This study employed a quasi-experimental, repeated measures design. Study population included 17,344 Texas dual-eligible beneficiaries who had prescriptions filled in Texas independent community pharmacies between January 2005 and September 30, 2006. RESULTS: Average patient out-of-pocket costs increased from $0.39 per claim under Medicaid to $13.36 per claim under Medicare Part D. Patient MPR increased from 75.71% during the Medicaid period to 79.37% during the Medicare period. Linear mixed model analysis showed that patient’s MPR increased by 3.66% when patients were enrolled under Medicaid. Patients were persistent to their drug therapy for an average of 151.76 days under Medicaid and days of persistence increased to 153.72 days during the Medicare period. Linear mixed model analysis showed that patients were persistent for 7.99 extra days after they were enrolled in Medicare Part D. Average number of gap days in therapy during the Medicaid period was 11.91 days and decreased to 8.38 days during the Medicare period. Average gap day length also decreased by 4.52 days when patients were enrolled in Medicare Part D. Linear mixed model analysis and linear regression analysis showed that as patient out-of-pocket costs increased, patient medication possession ratio and persistence increased, and average number of gap days in therapy decreased. CONCLUSIONS: These results suggest that dual-eligible benefici-aries’ medication utilization increased after implementation of Medicare Part D. Based on these results it can be concluded that higher out-of-pocket costs for dual-eligible beneficiaries under Medicare Part D did not have a negative impact on their drug adherence and persistence.

**PCV97**

**ANALYSIS ON THE EFFECTS OF MEDICARE PART D COVERAGE GAP ON STATIN MEDICATION ADHERENCE**

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**OBJECTIVES:** To investigate the impact of the coverage gap in the Medicare Part D program on statin medication adherence. METHODS: A pharmacy claims database from a national pharmacy benefit management company was used for this retrospective analysis. The sample includes Medicare Part D patients 65 years and older who 1) used statins in both 2007 and 2008, and 2) entered the coverage gap (donut hole), but did not reach the catastrophic phase in 2008. Adherence was measured by a dummy variable indicating whether the proportion of days covered was greater than or equal to 0.8. A difference-in-differences regression analysis was used to evaluate the effect of the coverage gap by comparing adherence to statins before and after the start of the donut hole. RESULTS: A total of 26,686 patients were identified. Beneficiarie-s were mostly women (53.5%) with an average age of 75 years. Patients in the study were divided into three groups based on level of coverage in the donut hole: no coverage (N = 4,984), generic drug coverage (N = 6,063), or generic and brand drug coverage (N = 15,639). After patients entered the donut hole, the average 30-day co-payment for statin medications increased notably for beneficiaries who had no drug coverage ($21.62 to $49.72) or generic only coverage ($22.22 to $42.04), but decreased for those with generic and brand drug coverage ($20.12 to $16.63). Compared to beneficiaries with both generic and brand medication coverage, beneficiaries with no coverage (OR = 0.381, p < 0.0001, 95% CI 0.350-0.415) and beneficiaries with only generic medication coverage (OR = 0.662, p = 0.0001, 95% CI 0.601-0.728) were less likely to be adherent to statin medications after entering the donut hole. CONCLUSIONS: Medicare beneficiaries with no coverage or generic only coverage were less likely than those with a more comprehensive gap coverage to be adherent to statins after entering the donut hole.

**PCV98**

**ADHERENCE TO LIPID LOWERING THERAPIES AS A PREDICTOR OF CHOLESTEROL OUTCOMES: A LITERATURE REVIEW**

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**OBJECTIVES:** Despite the benefits of lipid lowering therapies (LLT), adherence to LLT remains poor. This review aims to summarize and assess evidence from prior research on the association between adherence to LLT and cholesterol outcomes (cholesterol levels and/or goal attainment). METHODS: We searched PubMed database for research articles written in English and published between January 1, 2000 and December 31, 2009 using combinations of the following terms: “adherence,” “compliance,” “statin,” and “lipid lowering.” Retrieved articles were included for review if they met the criterion of adherence/compliance as a predictor of cholesterol outcomes (e.g., LDL-C, HDL-C, or TC). RESULTS: The automated literature search yielded 527 studies, 8 of which met the inclusion criteria. Despite that a majority of studies examined adherence to LLT, only a few included cholesterol outcomes. A total of 519 studies were excluded: 340 for being off topic, 3 for having no adherence measure, and 174 for having no cholesterol measures reported as an outcome. This review initially sought to quantify the effect of adherence on cholesterol outcomes; however, adherence measures and methodologies varied greatly and did not make data synthesis challenging. Heterogeneous methodologies were used for adherence measures, including medication possession ratio (MPR), medication event monitoring system (MEMS), adherence to therapy index (ATI), continuous measure of medication gaps (CMG) and pill counting. Regardless of how adherence was measured, better adherence was associated with improved cholesterol outcomes (lower LDL-C or TC or higher HDL-C levels compared to their respective baseline levels). CONCLUSIONS: Few studies evaluated both adherence to LLT and cholesterol outcomes and various adherence measurement methods. Using effective adherence measurement and objective clinical endpoints are needed. Health care providers should monitor medication adherence and develop effective interventions to improve adherence given the evidence on improved cholesterol outcomes as a result of increased adherence.

**PCV99**

**THE ROLE OF ILLNESS BURDEN AND MEDICATION BELIEFS IN MEDICATION COMPLIANCE OF ELDERLY WITH HYPERTENSION**

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**OBJECTIVES:** To measure the impact of illness burden and medication beliefs on medication compliance of elderly with hypertension using a tool that pictorially represents the burden of illness on self. METHODS: A cross-sectional study was conducted utilizing convenience sampling strategies and self-administered surveys of elderly hypertensive residents living in New York City senior care centers. Medication compli-ance was measured using Morisky’s test, medication beliefs were measured using Beliefs about Medication Questionnaire II (BMQ), and illness burden was measured by implementing Pictorial Representation of Illness and Self Measure- Revisited II (PRISM-RII) instrument. PRISM is a novel and visual measurement tool of suffering that consists of two components, namely, self illness separation (SIS) and illness perception measure (IPM). Additionally, two index scores, namely World Health Orga-nization (WHO)-5 wellbeing score and Suffering Question (SQ) scores were also computed to further examine interrelationships among study variables. RESULTS: About 33% of the 120 hypertensive elderly cohorts who responded to the survey were found to be noncompliant with their blood pressure medications. Morisky’s score correlated significantly and positively with both BMQ differential scores (r = 0.303, p = 0.001) and SIS component scores (r = 0.425, p = 0.000) respectively. General Overuse (GO) scores and IPM component scores correlated positively with Morisky’s score (r = 0.347 & 0.460, p = 0.000). SIS correlated positively with WHO-5 (r = 0.142, p = 0.126) and negatively with IPM (r = 0.841, p = 0.000). CONCLUSIONS: Beliefs about the benefits of taking medications outweigh the costs and risks of taking them. Higher perceived illness burden in hypertension translates into lower medication compliance in elderly. PRISM-RII may be a useful measure of illness burden in compli-ance research in elderly populations. The study underscores the importance of incor-porating patient perceptions about medications and illness burden into decisions involving hypertension management.

**PCV100**

**INTERVENTIONS TO IMPROVE COMPLIANCE WITH LIPOPLOWERING MEDICATIONS: A SYSTEMATIC REVIEW OF THE LITERATURE**

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**OBJECTIVES:** To identify the most effective interventions to improve patient compli-
ance with lipid lowering medications. METHODS: A systematic review was conducted using Medline, Cumulative Index to Nursing and Allied Health Literature, EMBASE, Cochrane Library, and references of review articles, and meta-analyses. Abstracts of studies published between 1999 and 2009, irrespective of language that included the terms hyperlipidemia, hypercholesterolemia, lipid lowering medications and adhere-
ce, compliance, and interventions were screened. Studies with incomplete informa-
tion, lack of adherence measure, overview and letters to editors were excluded. Full articles of studies on interventions that reported the use of a comparator group and reported quantitative data on compliance were included. Two reviewers extracted data from reviewed papers, and disagreements were agreed by consensus. A standardized data extraction form was used to record details on study design, objectives, randomization, blinding, comparator group, type of intervention, outcomes, population, follow up, ethics approval, sample size, statistical analysis and results. A quality score was cal-culated using the Downs modified scale. RESULTS: Of 130 titles, 79 abstracts were screened and only 15 studies fulfilled the inclusion criteria. Study heterogeneity precluded a quantified meta-analysis. Most interventions improved drug compliance (OR = 4.7% for single interventions and OR = 4.2% for multiple interventions). Most studies focused on pharmacist-led interventions, and the most effective included the use of telephone reminders, card reminders, brochures, and booklets. All interventions were able to reduce LDL and/or total cholesterol. Average index quality score was 40%. CONCLUSIONS: Interventions that improve compliance with LDL and/or total cholesterol. The most effective interventions to improve compliance with lipid lowering medications are complex, multi-factorial interventions. However, reports have variable quality.