trials mixed these types in different (and even unstated) proportions. Some (n = 12) required sinus rhythm for various durations at randomization, increasing the chance of success; 4 ignored early recurrences or allowed for recardioversion, while 16 counted every recurrence. In addition, methods used to detect recurrence varied from ECG confirmation at regularly scheduled visits to much more sensitive trans-telephonic monitoring (n = 11), which was employed in differing ways. Furthermore, efficacy endpoints were affected by biased termination of follow-up, as treatment withdrawal due to side effects leads to less detection of recurrence. Nevertheless, a published meta-analysis ignored these differences, citing similar recurrence rates in control groups and chi-squared tests that did not detect statistical heterogeneity. In our opinion, this does not adequately address heterogeneity in study designs, and the resulting estimates are unsuitable for economic modeling. CONCLUSION: Strict adherence to frequentist views can lead to inappropriate pooling of trial data and erroneous inputs for economic models. A Bayesian perspective provides a more correct view of the intractable study design differences.

**PCV69**

**BLOOD PRESSURE SUCCESS ZONE LONGITUDINAL STUDY OF SUCCESS (BPSZ-BLISS). AN OBSERVATIONAL, MULTI-CENTER STUDY OF THE IMPACT OF THE BPSZ EDUCATIONAL PROGRAM ON BLOOD PRESSURE CONTROL, PERSISTENCE, COMPLIANCE, AND TREATMENT SATISFACTION. DESIGN AND METHODS**

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**OBJECTIVES:** Educating hypertensive patients in blood pressure management can improve clinical outcomes. The BPSZ Program is a nationwide educational program which provides participants with tailored educational materials in addition to a complimentary trial of one of three different antihypertensive medications. The BPSZ-BLISS study is a naturalistic study to evaluate the effectiveness of the BPSZ program by utilizing a sub-set of the Program participants and measuring the following: blood pressure (BP) control, compliance, persistence and treatment satisfaction. **METHODS:** 20,000 MDs enrolled in the BPSZ Success Zone program were invited to participate in the study. Using an Interactive Voice Response System (IVRS), MDs report BP and other data at the enrollment visit and at every usual care visit up to 12 +/-2 months; subjects self-report BPs, persistence, compliance and treatment satisfaction at 3, 6 and 12 months post BPSZ enrollment. MDs and subjects are supported by call center representatives as needed. In addition to BPSZ program enrollment medication, MDs prescribe anti-hypertensive medications and schedule visits as per usual care. The General Electric Health care database will be used as an external referent to facilitate interpretation of study outcomes. RESULTS: After 12 months, 2,000 IRB approved MDs have enrolled over 10,000 subjects (48% male; mean age 56 years; 26% newly diagnosed; 97% of MDs, and 75% of subjects successfully entered IVRS enrollment data. Automated IVRS validations have successfully maintained cohort integrity and data quality (less than 5% error on key study variables). MD and patient enrollment will continue until April 2007; study completion is scheduled for mid 2008. **CONCLUSION:** MD and patient enrollment, and the acquisition of outcomes data in a nationwide health education program require innovative design and automated data management and quality control methodologies. Strengths and weaknesses of the BPSZ-BLISS study design can help inform similar health education program evaluation initiatives.

**CARDIOVASCULAR STUDIES—Patient-Reported Outcomes**

**MOBILE PHONE MESSAGE VERSUS POSTAL REMINDERS TO INCREASE TREATMENT ADHERENCE AFTER LIPID LOWERING THERAPY AMONG HYPERLIPIDEMIC PATIENTS IN PRIMARY CARE**

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**OBJECTIVES:** To compare mobile phone messaging and postal reminders as means of increasing the attendance rate during the first 24 weeks of lipid-lowering therapy among hyperlipidemic patients in primary care. **METHODS:** The study was a randomized controlled trial of 918 patients from 19 family practice clinics conducted between February 2003 and June 2005. Patients were randomly assigned to receive mobile phone message reminders, postal reminders, and control strategies. To ascertain attendance rates, patients were regularly followed up 12 to 24 weeks after their treatment. Reminders were sent on average at 16 weeks. The primary measure was the attendance rate at 24 weeks. A secondary outcome was identifying the direct cost and benefits of each reminder type. **RESULTS:** Overall attendance rate was 74.1%. This differed between groups, with 76.1% attendance for the mobile phone messaging group, 73.5% for postal reminders, and 72.4% for the control group. According to a multivariate analysis, the mobile phone messaging group had a significantly higher attendance rate (OR 1.48, 95% CI: 1.01–2.16) than the control group, but the postal reminder group (OR 1.15, 95% CI: 0.79–1.69) did not. Moreover, for one additional visit, the marginal cost of mobile phone messaging (USD 3.1) was much lower than that of postal reminders (USD 47.0). **CONCLUSION:** Mobile phone messaging is a more cost-effective method to increase the attendance rate at 24 weeks after lipid lowering therapy among hyperlipidemic patients.

**THE IMPACT OF INTERACTIVE VOICE RECOGNITION TECHNOLOGY ON ADHERENCE TO STATIN THERAPY**

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**OBJECTIVES:** To evaluate the ability of interactive voice recognition (IVR) technology to improve statin adherence in a cohort of new start patients. **METHODS:** Plan members were identified based on the existence of a filled prescription for statin therapy between May 1, 2005 and December 1, 2005 and randomized to intervention or control group. Statin prescription claims were evaluated through June 25, 2006 when study analysis was completed. Subjects had to be 18 years or older, continuously enrolled in the health plan for 2 years, and new users of statin therapy. Members enrolled in any other plan-sponsored IVR initiative were excluded from this analysis. The intervention group received three automated phone calls; call one provided disease state education, call two was a refill reminder, and call three addressed the importance of physician follow up. The program provided customized interaction based on patient response, primary vs. secondary prevention, and refill behavior. Persistence
and mean possession ratios (MPR) and were calculated at a 3–6 month timeframe for all study participants and compared to usual care. RESULTS: During the 7-month enrollment period a total of 6833 members were randomized to the intervention group for call one, 3274 for call two, 772 for call three, and 4172 to usual care. Members reached for each intervention group were 3723 for call one, 1427 for call two, and 339 for call three. Targeted members demonstrated statistically significant higher rates of persistency compared to the control group (49.2% vs 44.70%). MPRs were also statistically significantly higher for members receiving telephonic intervention at 3–6 months (0.759 vs 0.738). These differences were seen regardless of age and gender. CONCLUSION: Compliance with statin therapy remains poor, however IVR technology can improve adherence to statins in new start patients. Additional studies are needed to evaluate the use of IVR technology in combination with other more traditional compliance methods.

**PCV72**

**CHARACTERIZATION OF HYPERTENSIVE PATIENTS WHO MIGHT BENEFIT FROM A COMBINATION OF TWO DRUGS IN ONE PILL FOR REDUCTION OF CARDIOVASCULAR RISK**

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**OBJECTIVES:** To assess whether new users of antihypertensive therapy could benefit from using a single-pill, fixed-dose combination drug compared with separate pills to improve their adherence to therapy. **METHODS:** Data from the Integrated Primary Care Information database in The Netherlands (NL) and 30 Italian (IT) general practitioners with automated medical records were used. Patients aged ≥30 y with mild-to-moderate hypertension and ≥3 cardiovascular risk factors or prior cardiovascular events who were experienced or new users of antihypertensives in June 2003–June 2004 (NL) or June 2004–June 2005 (IT) were selected. Patients were followed until October 2005 (NL) or February 2006 (IT) when they completed a questionnaire concerning adherence to their therapy. Treatment adherence (percentage of days covered [PDCi]) was also calculated from the prescription records. **RESULTS:** A total of 729/1473 (49.5%) (NL) and 1320/1602 (82.4%) (IT) completed the questionnaire. Of these, 101 (NL) and 47 (IT) patients were new users of antihypertensives. Reasons for not taking medications were side effects, ineffectiveness and forgetfulness, which scored highest in the NL. In Italy, forgetfulness and side effects were ranked highest. The median PDCi for antihypertensive drugs was 57% (NL) and 69% (IT), less than 40% (NL) and 42% (IT) had PDCi > 80%. Partial (PDCi 20–80%) and poor (PDCi < 20%) adherence occurred frequently in newly treated hypertensive patients. Approximately 35% (NL) and 70% (IT) of the respondents stated that they would be less or much less likely to miss a dose with a single-pill combination therapy. The likelihood to miss a dose with single-pill treatment was not associated with the prescription-derived PDC levels, but highly associated with self-reported level of adherence. **CONCLUSION:** Patients newly treated with antihypertensive drugs with additional cardiovascular risk factors may benefit from a single pill. Screening of those who may benefit should be based on self-reported adherence rather than PDC levels.

**PCV73**

**DEscribing drug use patterns using sequence analysis**

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**OBJECTIVES:** Describe characteristics of drug prescribing patterns of antihypertensive agents using sequence analysis. With frequent changes in drug classes, sequence analysis can help illustrate the number and length of different drugs prescribed for treatment. **METHODS:** Medstat’s MarketScan Database from 2003–2004 was used to identify a sample of newly diagnosed hypertensive patients with 6 months continuous follow-up administrative claims data. Drugs evaluated in each follow-up month were ACEi, ARB, BB, diuretic, combination AHY regimens, or none. For each patient, a sequence pattern is defined as an ordered list of drugs prescribed. Characteristics of patterns are described and visualizations were made using index plots and parallel-coordinates plots. **RESULTS:** Eighty-seven different sequences were identified among 387 patients studied. The three most frequent sequences observed were 6 continuous months on diuretic (16%), 6 months on ACE (14%), and 6 months on BB (12%). Nineteen percent of patients had no drug after the first month, 40% had at least one month on “no” drug, and the average duration on “no” drug was 1.4 (SE = 0.05) months. Patients used an average of 1.7 (SE = 0.1) different drugs. Thirty-eight percent of patients had some diuretic use and 15% had 6 months on diuretic. There were no significant age or gender differences in number and average length of drug episodes (a string of months on same drug), but females had more and longer episodes of “no” drug. Index plots with drug episodes characterized by different colors show changes among diuretics occur quicker and more frequently than among other drug classes. **CONCLUSION:** Sequence analysis is used in many scientific fields and is an unused tool that health economics can use for summarizing changes in antihypertensive and other medications.

**PCV74**

**Development and validation of the health-related quality of life (HRQL) component of the hybrid instrument—IMPACT (Impact of Pharmacist Activities and Care on treatment outcomes)**

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**OBJECTIVES:** The purpose of this study was to validate the health-related quality of life (HRQL) component of a hybrid instrument IMPACT (Impact of Pharmacist Activities and Care on Treatment outcomes) that is being developed to measure patient satisfaction with pharmacist services and HRQL when patients with multiple chronic conditions receive care in a pharmacist-run medication therapy management (MTM) clinic. **METHODS:** The HRQL component (developed following a systematic literature review and qualitative survey of patient and provider responses) had 24 items in five domains (physical, social, emotional functioning, diet and medication-related issues). The instrument was pretested on second year pharmacy students at our institution to determine its psychometric properties (reliability, construct validity and responsiveness). Student participants received the same baseline scenario (1) of a patient with diabetes, hypertension and dyslipidemia and were randomized to receive one of two endings (2A or 2B). Scenario 2A described patient status where a positive change in health status occurred due to pharmacist intervention and Scenario 2B when there was no change. Participants signed a consent form and completed web-based pre and post HRQL surveys. Reliability was tested using Cronbach’s alpha; responsiveness (sensitivity