

concordance between these scores when both measures could be computed. **Results:** We identified 122,270 eligible patients. Of these, 59.7% (n=73,023) had sufficient data to calculate the lab-based risk score and 88.1% (102,795) clinic-based risk score. Neither score could be calculated for 14.5% (n=17,732). The most common reason for not being able to calculate was missing data on cholesterol. Using the laboratory-based score only, we found 12.9% of the population were at high risk (risk >20%), 24.5% moderate risk (10-20%), and 62.6% low risk (<10%). For those with both risk scores (n=71,280), the lab-based risk score was lower than the clinic-based score for 84.3% of patients (60,060/71,280). The lab-based score was 3.1% lower on average, but the two risk scores were within $\pm 5\%$ for 77.0% of patients (54,874/71,280). The risk scores differed by more than 10% for only 8.7% of patients (n=6236), and in most cases (6098 of 6236), the clinic-based score was higher. **Conclusion:** Electronic data can be used to classify CVD risk for most adults age 30-74. Risk scores based on BMI tend to estimate risk as higher than scores based on laboratory data. However, the risk scores do not differ by more than 5% for most patients.

Keywords: Electronic health records, Cardiovascular disease, Prevention
doi:10.3121/cmr.2011.1020.c-a4-02

C-B4-03:

Promoting Adherence to Improve Effectiveness of Cardiovascular Disease Therapies (PATIENT): Implementing a Medication Adherence Intervention Using Health Information Technology

William Vollmer, PhD¹; Andrew Williams, PhD²; Suma Vupputuri, PhD³; Cynthia Rand, PhD⁴; David Smith, PhD⁵; Adrienne Feldstein, MD⁵; Diane Ditmer, PharmD⁵; Jeffrey Tom, MD, MPH²; Reesa Laws, BS⁵; Jennifer Schneider, MPH⁵; Amy Waterbury, MPH⁵; Ashli Owen-Smith, PhD³; Cyndee Yonehara, BS²

¹Kaiser Permanente; ²Kaiser Permanente, HI; ³Kaiser Permanente, SE; ⁴Johns Hopkins University; ⁵Kaiser Permanente, NW

Background/Aims: The frequent failure of patients with diabetes and cardiovascular disease to adhere to long-term medications remains one of the greatest challenges for chronic-disease management. Simple interventions designed to make small but significant improvements to adherence at the population-level may offer cost-effective and easily-disseminated options for enhancing adherence. We describe the design and implementation of a pragmatic clinical trial, PATIENT, designed to improve adherence to selected medications with known efficacy for preventing cardiovascular disease morbidity and mortality. **Methods:** We will recruit adults aged 40-80 with diabetes or cardiovascular disease, for whom the use of ACEI/ARBs and statins are recommended therapy for secondary prevention. The 3 arms of the study include 1) usual care; 2) an Interactive Voice Recognition (IVR) intervention, integrated with an electronic medical record (EMR), to educate patients about their medications and assist them in refilling their prescriptions and 3) an Enhanced IVR (IVR+) intervention with EMR-based feedback to primary care providers, mailed educational material to patients, and personalized and tailored mailed reminders to patients who fail to fill prescriptions. The Practical Robust Implementation and Sustainability Model (PRISM) will serve as the guiding framework for evaluating these interventions. The study will take place within the Northwest, Hawaii, and Southeast regions of Kaiser Permanente and will be an illustration of how to conduct a large pragmatic trial in collaboration with care delivery systems. **Results:** As part of the first phase of this 3-year study, key stakeholders and advisors have been actively engaged, including individuals in health IT, care management, pharmacy, and health care providers. Input is being obtained through ongoing meetings with local advisory boards and a series of patient focus groups and in-depth, individual interviews with patients, providers, and health plan managers. The presentation will describe the finalized design of the intervention and highlight the findings from the ongoing developmental work. **Conclusions:** The PATIENT study interventions, if successful, could have significant public health applications as flexible and generalizable components of managed care and pharmacy benefits programs. Understanding

systems-level and patient-level barriers to, and facilitators of, successful implementation is therefore critical to widespread implementation and development of these interventions.

Keywords: Cardiovascular, IVR, Implementation
doi:10.3121/cmr.2011.1020.c-b4-03

PS2-42:

Outcomes of Cardiovascular Events in Two Systems of Care

John Zeber, PhD, MHA¹; Debbie Godwin, BS¹; Laurel Copeland, PhD, MPH¹; Bhushan Mahajan, MS¹; Catherine McNeal, MD¹

¹Scott & White Healthcare

Objectives: Understanding the prevalence and outcomes of cardiovascular disease across different health systems will enable organizations to effectively use clinical datasets to monitor and improve the care delivered to their patients. Framed within the context of comparative effectiveness research, this study utilized comprehensive administrative datasets to describe outcomes of hospital readmission, Emergency Department (ED) use, and mortality following a cardiovascular event (myocardial infarct, congestive heart failure, angina, stroke). We examined patients within the same geographic region (central Texas) at Scott & White Healthcare (SWHP) and the Veterans Health Administration (VA). **Methods:** Patients with a recorded cardiovascular event in 2009 were identified by ICD9 codes from the Virtual Data Warehouse (VDW) for SWHP patients and VA databases for veterans. Subsequent hospital readmission for any reason, 30-day mortality (all cause), and ED use were defined by dates of care, treatment location, and death data maintained by both systems. Covariates included age, gender, poverty status (non-payment for SWHP, high priority veterans), prior-year history of cardiac event, and Charlson comorbidity score. **Results:** Excluding 7 pediatric cases, 1,156 SWHP patients met inclusion criteria versus 406 VA cardiovascular event patients. Veterans were predominantly male (96%), aged 68.6 years (+/-11.2), of whom 14% died as inpatients. SWHP patients averaged 71.9 years (+/-14.6), with slightly over half being female. In addition to gender, VA patients also experienced greater overall comorbidity scores. Unadjusted models indicated that mortality and readmission rates were lower for SWHP patients relative to veterans; documented ED use was minimal in both systems. Ongoing analyses will examine specific gender and other patient characteristic differences by event type and clinical outcome. **Conclusions:** In the same geographic region, these comparative analyses were enabled by Scott & White's participation in the VDW coupled with access to VA national administrative databases. While the two populations have well-recognized demographic and clinical differences (e.g., SWHP pediatric patients with their unique pathology, VA military service conditions), the similar richness of diagnosis codes, treatment dates, and healthcare-related outcomes will permit sophisticated adjusted analyses. Findings highlight VDW research benefits and the potential for dual system analysis, increasing priorities for these large health organizations.

Keywords: Cardiovascular events, Comparative research, Veterans
doi:10.3121/cmr.2011.1020.ps2-42

PS2-14:

Self-Reported Use of Home Blood Pressure Monitoring Does Not Predict Improved Hypertension Control

Beverly Green, MD, MPH¹; Melissa Anderson, MPH¹; Sheryl Catz, PhD¹; James Ralston, MD, MPH¹

¹Group Health Research Institute

Background/Aims: Randomized controlled trials provide evidence that home blood pressure monitoring (HBPM) leads to small but significant decreases in blood pressure (BP) in patients with hypertension (HTN). Less is known about use of HBPM in the general population with HTN and its effect on BP control. **Methods:** From May 2006 to December 2007 we attempted to contact all patients with a diagnosis of HTN from 10 primary care clinics in Western Washington (Group Health) to determine their eligibility and willingness to participate in a the Electronic Communications