How Do the Best Physicians Get Diabetes Patients to Glycemic Goals

William A. Rush, PhD, *HealthPartners Research Foundation*; JoAnn M. Sperl-Hillen, MD, *HealthPartners Research Foundation*; Patrick J. O'Connor, MD, MPH, *HealthPartners Research Foundation*; Paul E. Johnson, PhD, *Carlson School of Management, University of Minnesota*; Jerry H. Amundson, BS, *HealthPartners Research Foundation*; Heidi L. Ekstrom, MA, *HealthPartners Research Foundation*; George R. Biltz, MD, *Kinesiology Department, University of Minnesota*

Background: There is considerable variation in the ability of physicians to bring diabetic patients under glycemic control. The purpose of this study was to examine medication prescribing patterns relative to glucose control of the clinically most successful doctors in the management of diabetes patients. **Methods:** The data investigated came from data collected from the electronic medical record (EMR) of HealthPartners Medical Group (HPMG) between 3/1/2005 and 2/28/2006. The study looked at 80 primary care physicians treating diabetes patients in 20 clinics around the twin cities area. Physicians were ranked on the number of diabetes patients at the combined goals of having an A1c <7%, a low density lipoprotein (LDL) <100 mg/dl, blood pressure <130 mm, a nonsmoker and taking a daily aspirin. The top 25% (n=20) of these physicians were classified as 'optimal physicians' and compared with the remaining 75% of physicians (n=60). Medication adjustments were examined at each primary care encounter relative to the last known A1c level. **Results:** There was no difference in the optimal physician distribution between the physicians having a specialty of family medicine (47%) relative to those with a specialty of internal medicine (P=0.1299). The numbers of diabetic patients treated (mean 100) was also not a factor associated with optimal physician status (P=0.9361). Optimal physicians managed more patients to their glucose goals (23.1% vs. 18.9%; P=0.0290). When we looked at the average A1c level where physicians continued to titrate the dose of oral glucose control medications for patients above goal, there was a significantly (P=0.0120) lower mean threshold for titration for the optimal versus the other physicians (7.8% vs. 8.4%). **Conclusions:** While all physicians are focused on managing diabetes patients who are above their glucose goal, the optimal physicians are willing to continue making medication adjustments to a point closer to the glucose goal than other physicians. This does not appear to be related to experience gained through having more diabetes patients in their patient panel, but may indicate that optimal physicians are more comfortable or perhaps knowledgeable about continually titrating medications when patients are near the glucose goal. Perhaps if other physicians could be given further training and support tools such as what may be embedded within an EMR, they could also achieve similar results.

Abstract PS2-17

Identifying Characteristics Associated With Abnormal Blood Glucose Readings Among African Americans

Darcy Saffar, MPH, *Henry Ford Health System/Institute on Multicultural Health*; Kimberly Dawn Wisdom, MD, MS, *Institute on Multicultural Health, Henry Ford Health System*; Denise White Perkins, MD, PhD, *Institute on Multicultural Health, Henry Ford Health System*; Sharon Milberger, ScD, *Institute on Multicultural Health, Henry Ford Health System*; Alissa Kapke, MS, *Institute on Multicultural Health, Henry Ford Health System*; Veronica Williams, MPH, *Institute on Multicultural Health, Henry Ford Health System*

Background: The Centers for Disease Control recently recommended that community-based screening for diabetes be discontinued due to their low yield of incident cases and challenges in the follow-up for abnormal cases. Moreover, community-based screenings for diabetes are not considered efficacious even in high-risk populations. The purpose of this study is to evaluate the characteristics associated with random abnormal blood glucose readings among African Americans in order to determine the potential value of a more targeted approach to community-based screenings. **Methods:** Data were collected from participants of an ongoing community-based screening study at screening events hosted by a large urban health care system. Data collected included gender, race, age, self-reported height and weight, health history, blood pressure (BP), and random blood glucose. Individual parameters were analyzed in a univariate logistic regression model; parameters with

P<0.20 were then considered in a multivariable logistic regression model. The final model was selected using the backward selection method and retained parameters with P<0.05. **Results:** Between October 1999 and September 2002, there were a total of 5485 participants. Of these, 89% were African American, 61% were female, and the mean age was 49.8 (SD=15.88). Eighty-eight percent (4832) had never been previously diagnosed with diabetes and among these, 274 (5.7%) had an abnormal blood glucose reading. Results indicated that age, BP, and body mass index (BMI) were significantly associated with abnormal glucose readings (all P-values <0.001). Among participants who had never been diagnosed with diabetes, those who were 50 years or older were 1.7 times more likely to have an abnormal glucose reading compared to participants <50 years (OR: 1.74; 95% CI: 1.33, 2.27). Participants with abnormal BP screenings were 1.4 times more likely to have an abnormal glucose reading (OR: 1.44; 95% CI: 1.09, 1.90). In addition, increasing BMI was associated with abnormal glucose readings. More specifically, for every 1-unit increase in BMI, the odds of having an abnormal glucose reading increased 4.7% (OR: 1.047; 95% CI: 1.028, 1.066). **Conclusions:** Age, abnormal BP, and BMI are all associated with random abnormal blood glucose readings among those with no previous diagnosis with diabetes. These findings suggest that more research is needed in order to determine the value of a more targeted approach to community-based screenings for diabetes.

Abstract PS2-18

Patient-Provider Communication About Prescription Drug Costs Among Medicare Part D Beneficiaries

Vicki Fung, PhD, *Kaiser Permanente - Division of Research*; Mary Price, MA, *Kaiser Permanente - Division of Research*; John Hsu, MD, MBA, MSCE, *Kaiser Permanente - Division of Research*

Background: Many Medicare beneficiaries face substantial out-of-pocket prescription drug costs under Part D. Providers may be able to help patients make clinically appropriate choices when they have concerns about drug costs. We examined patient-provider cost discussions during the first year of Part D benefits. **Methods:** We conducted telephone surveys in early 2007 in a stratified random sample of Part D beneficiaries of a large integrated delivery system (n=1040, response rate=74.9%). Patients reported whether they talked with a doctor, engaged in any cost coping behavior (e.g., switched to a cheaper medication, split pills with their doctor's advice), reduced adherence (e.g., stopped refilling a prescription) or experienced financial burden (e.g., went without another necessity) because of their drug costs in 2006. We used multivariate logistic regression to examine characteristics associated with talking with a doctor about costs and the association between discussions and cost responses. All analyses were weighted for differences in sampling proportions. **Results:** Overall, 15.6% reported discussing drug costs with a doctor: 11.7% of patients who did not reach the coverage gap ('doughnut hole'), and 32.6% of those who did. Among patients who talked with their doctor, 80.0% initiated the discussion and 62.6% felt their provider was helpful. In conjunction with these discussions, patients most frequently reported that their doctor switched a prescription to a less expensive version (46.1%), talked to them about which medications should definitely not be skipped (32.0%), and asked whether they could afford the medication before prescribing (26.5%). After adjustment for individuals' drug costs and other characteristics, patients who talked with their doctor about drug costs were more likely to report each of the three types of cost responses compared with those who did not: cost coping behavior (OR=5.42, 3.05-9.61), reduced adherence (OR=2.96, 1.62-5.43), and financial burden (OR=3.01, 1.27-7.13). **Conclusions:** In this study population, fewer than 1-in-6 patients discussed drug costs with their doctor, but the majority of those who did found their doctor helpful. Patients most frequently reported that their doctor switched them to a cheaper medication or advised them on the clinical necessity of their medications. There appears to be a strong association between patients talking with their doctor about costs and reporting behavioral responses to drug costs.