Background/Aims: Primary Care Providers (PCPs) are seeing more complex patients who were previously managed by specialists. PCPs may not have the time or expertise to fully elicit or evaluate all patient complaints, or apply the detailed evidence required to manage these conditions. We describe provider experience with eCVD, a web-based cardiovascular disease (CVD) management system for use in primary care. eCVD incorporated a shared-decision making (SDM) tool linked to a clinical decision support (CDS) tool that, together, were designed to promote the development of preference-sensitive and evidence-based care plans. **Methods:** Prior to a primary care encounter, patients completed a behavioral risk factor questionnaire to calculate their CVD risk. Patients at elevated risk used the eCVD system, which included an SDM tool that informed patients of their CVD risk, educated them on the types and benefits of risk factor-specific treatment options, and allowed them to select their preferred treatment options. Via an alert embedded in the electronic health record (EHR), the provider could access a CDS tool displaying both tailored, guideline-based recommendations and the patient's chosen treatment preferences. We tracked use of the CDS and conducted structured interviews with providers to understand their experience with eCVD. Interview domains included: logistics/workflow, mode of presentation, content, patient preferences, and improving efficiency/effectiveness. **Results:** The CDS alert was presented for 118 patients; only 21.2% were opened by providers. Initial review of interview data showed that providers did not open the CDS alert due to time constraints or because it was indistinguishable from other EHR alerts. Providers stated that they believe discussing a patient's preferences for care is important but difficult to do with complex patients because of the time needed to: 1) review all relevant data; 2) determine additional data needs (e.g., labs); 3) determine the appropriate clinical course of action; and 4) educate the patient. **Conclusions:** Models of technology adoption highlight the importance of usefulness and usability of a tool like eCVD. Our data suggest that, while the SDM/CDS content was useful, usability issues remain. Detailed thematic analysis of how the tool was accessed and the functionality it provided will be completed in December 2010.

Keywords: Shared decision-making, Clinical decision support, Health information technology

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PS2-33:

Patient Characteristics Associated with Medication Adherence

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Objective: To help understand medication adherence within HealthPartners, we developed a study to assess factors associated across eight different conditions. This presentation focuses on associated patient-related characteristics. **Methods:** We identified all members 18+ with a minimum of two prescription fills for >28 days' supply within 1 year between January 2007 and March 2009. Medications of interest (n=128) were identified for the treatment of one of the following eight diseases: depression, hypertension, hyper-cholesterolemia, diabetes, asthma/COPD, multiple sclerosis, cancer or osteoporosis. Diagnosis records were identified by ICD-9 code and merged with the prescription order records. We then examined differences across conditions by age, sex, race, co-morbidity and geo-code. Data were examined first with patients who had only one of the eight conditions and had only one medication (n=15,334). Analyses were then repeated on the population of patients who had any number of conditions and any number of medications (n=31,636 patients). Adherence was calculated by the Medication Possession Ratio. We used an 80% threshold. **Results:** Statistically significant differences were found. Males were generally more adherent than females, although the magnitude was small. Whites were more adherent than patients of other races and older patients were more adherent than those younger. Adherence was higher among patients living in areas having a higher proportion of residents with a high school education, lower poverty, and higher family income. Among patients with any number of conditions drug adherence increased with lower Charlson score, having fewer of the eight conditions we

considered, and being on fewer drugs for those conditions. Substantial variation was found in drug adherence by condition, with multiple sclerosis, hypertension, hyperlipidemia, osteoporosis, and cancer having a high percentage of patients considered adherent (75%+). Whereas adherence rates for depression, diabetes, and asthma/COPD were 62%, 51% and 33% respectively. **Conclusion and Implications:** We expected to find adherence to be higher as pharmacy is a covered benefit and access to medications available through multiple channels. Never-the-less, significant differences were found by sex, age, race, SES and across the multiple conditions studied. There remains great room for improvement specifically related to treatment for diabetes and asthma.

Keywords: Medication adherence, Patient characteristics

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PS2-20:

The Development of Educational Materials to Assist Family and Friend Caregivers and Healthcare Providers in Caring For Persons with Incontinence and Dementia

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Background/Aims: Incontinence and associated skin damage can occur in Alzheimer's disease or dementia (AD), however few educational programs directly address these problems. Informational needs related to incontinence and skin care in dementia were assessed among informal (family/friend) caregivers and healthcare providers in order to develop educational materials.

Methods: Audiotaped focus groups or interviews were conducted with informal (family/friend) caregivers (goal n=56) and healthcare providers (goal n=10) to assess health literacy content (e.g., knowledge, skills), attitudes and preferences for format of materials. An informational and supportive intervention is currently being developed based on the results of this assessment, as well as review of current literature and recommendations by expert clinical consultants. **Results:** A total of 48 caregivers and 11 healthcare providers participated in focus groups/interviews. Preferred format of materials for both caregivers and providers involved informational brochures or a FAQ sheets; very few preferred electronic materials. Based on needs assessment results, topics have been prioritized for development of caregiver educational materials: (1) Relationship between incontinence and AD (e.g., prevalence, reasons why incontinence occurs in AD, incontinence as a health problem and not a behavioral problem), (2) Managing incontinence (e.g., handling undressing/dressing and toileting, diet/fluid restrictions), (3) Preventing Skin Issues (e.g., skin damage descriptions, guide to absorbent and skin care products, step-by-step instructions for skin care), (4) Talking to a healthcare provider (e.g., when to discuss topic, terms to use), (5) Caring for the caregiver (e.g., importance of self-care, preventing isolation, sharing experiences with other caregivers), and (6) Questions to ask when considering assisted living or long-term care (e.g., how to assess facility's management of incontinence and skin issues among persons with AD). These materials will be shared with healthcare provider subjects. Provider-specific educational materials will also include a short, intake survey that can be administered prior to appointment to prompt inquiry regarding incontinence, and a reference list of key articles related to incontinence and AD. **Conclusions:** Supportive and informational educational materials are being developed regarding incontinence and skin care to meet the needs of caregivers and healthcare providers of persons with AD. Final materials will be presented.

Keywords: Dementia, Incontinence, Information needs

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PS2-13:

Why Patients Fail to Complete Laboratory Monitoring Requests

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Background/Aims: Inadequate laboratory monitoring of high-risk medications is a medical error associated with preventable adverse drug events. Patient failure to complete ordered laboratory tests is not uncommon. We conducted in-depth interviews with patients who did not complete a recently ordered laboratory test to identify barriers to test completion. **Methods:** The target population was patients in a large multispecialty group practice who failed to complete an ordered laboratory test. We conducted semi-structured interviews with 18 patients who did not complete a monitoring test order related to 1 of 7 high-risk medications (angiotensin converting enzyme inhibitors (ACE) inhibitors, angiotensin II receptor blockers (ARBs), digoxin, phenytoin, statins, thyroid replacement hormone, or valproic acid) between July 2008 and October 2010. For comparison, we also interviewed 5 patients who completed all ordered laboratory tests. The interviews occurred in person when possible (n=17) as well as by phone (n=6). All interviews were recorded and transcribed and analyzed using a grounded theory approach. **Results:** The laboratory monitoring discussions included the following themes: physician communication about lab tests, patient comprehension of lab test purpose, patient attitude toward lab tests, and barriers to test completion. The most prominent barrier to test completion was forgetting. Patients often did not realize they had missed an ordered test. When patients did acknowledge missing an ordered test, they often noted that they did not encounter any barriers besides forgetting. Regarding potential interventions, patients reported that understanding the indication for the tests would not help reduce non-completion. Several patients understood the reason for the test, but still failed to complete it. While some thought it was important to understand the reason for the test, others trusted their physician and did not believe it was essential to understand. Some patients were using an online personal health portal system offered through the practice that included information about upcoming tests. **Conclusions:** Forgetting was the most prominent theme for non-completion of ordered test. Patients felt that providing timely (near desired test completion date) patient reminders, either by phone or by e-mail, would likely improve completion rates of laboratory monitoring for high-risk medications, while providing more information about the test indication would not.

Keywords: Laboratory monitoring, Qualitative research, High-risk medication

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C-B3-01:

Building Toward a Patient-Centered Culture: Insights and Tactics from Literature, Health System Stakeholders, and Patients

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Background: The degree to which medical care is patient-centered is frequently cited as a key attribute of healthcare quality. However, the precise definitions, skills and behaviors that underlie patient-centered care remain somewhat elusive. **Methods:** We used a pragmatic literature review, focus groups with patients, and interviews with key delivery system and health plan leaders as well as primary care teams to guide development of an operational definition of patient-centered care. We then sought specific opportunities to partner with the health system leadership and disseminate this work, in order to mobilize our entire organization to find ways to become more patient-centered. As part of the focus groups and interviews, we gathered feedback about a proposed definition of patient-centered care that could be adopted organization wide. **Results:** The literature review identified key attributes of patient-centered care at the system level, clinical level and interpersonal level. Both focus groups and interviews showed concordance in their views of what patient-centered care was--how it was defined, and how it was manifested by our doctors and our entire organization. We have utilized both evidence from the scientific literature and input from our members and practitioners to identify specific strategies and intervention opportunities for our health system. The field of patient-centered care research is fertile, however a clear taxonomy is needed to describe how patient-centeredness relates to related constructs such as activation, empowerment, doctor-patient communication, trust, and shared decision-making. Promising interventions exist, but few have been replicated.

Conclusions: Systems, and individuals within systems have opportunities to further develop and exemplify a patient-centered culture. Identifying specific attributes of delivery system design, communication, clinician training and optimal care transitions are among the areas that are ripe for improvement. Key issues that need to be addressed for successful cultural and system change and the highest priorities for research to support such change will be highlighted.

Keywords: Patient-centered care, Quality improvement, Culture

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PS2-21:

Explanation to Understanding: Practices of the Highest Performing Physicians by Patient Survey

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Background: The MD-Patient Communication Study aims were the best practice communication behaviors of physicians during outpatient clinic visits; and to collect physician perspectives of communication behaviors. Researchers have consistently found the top predictors of overall patient satisfaction are quality of the physician-patient relationship and contributing communications. There is limited understanding however, of the range of specific behaviors in the interaction associated with positive and negative patient perceptions and reactions. **Methods:** In phase 1, we conducted a naturalistic, observational study of fifty-five, Permanente Primary Care physician-patient visits using videotape recordings, and incorporating patient and physician reactions to the tape. The physicians, who practiced in Los Angeles and Honolulu, spanned the three strata of high, medium, and low historical patient satisfaction scores. In phase 2, a standardized six-question set was posed, in semi-structured, 60-minute interviews, to 77 of the highest-performing physicians on this patient survey, including: 20 of the highest performers (top 5%) from the LA and Honolulu groups; and 42 and 15, respectively, of the highest performing physicians in Portland and Oakland. These interviews were audio taped with permission, transcribed and coded for patterns. **Results:** Explanation to achieve understanding was the most commonly cited activity in answer to a 'physicians' role in their patients' healing,' and in what constitutes a "therapeutic moment in the visit." Pattern dimensions include: context – trust, relationship; communication – connection, dialogue; content – visual explanation; role – patient ownership; and support – reassurance, encouragement. Representative verbatims: "It's how the information is interpreted and packaged, and what's emphasized, and how it's customized to the individual;" "I spend a fair amount of time explaining physiology in their terms so they understand why we're doing what we're doing, or what's happening and what to expect;" "If you don't have a relationship with your patient, then you don't have a really effective treatment protocol." **Conclusions:** With national health care reform's new Prevention Codes calling for "Discussion," and patients' dependence on explanation to understand and follow through with treatment recommendations, describing how high performing physicians create high patient satisfaction, is of great importance.

Keywords: Explanation, Understanding, Relationship

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Diabetes, Obesity, and Physical Activity

PS2-27:

Near-Normalization of Glucose and Microvascular Diabetes Complications: Data from ACCORD and ADVANCE

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Purpose: To compare results of clinical trials that assessed the impact of near-normalization of glucose on microvascular complications in type 2 diabetes. **Methods:** ACCORD (N=10,234) and ADVANCE (N=11,140) tested the hypothesis that near-normalization of glucose reduces microvascular complications in adults with established type 2 diabetes. Difference in