original study), tumor stage, comorbid conditions, presence of positive margins, seminal vesicle involvement or perineural invasion at RP, age at recurrence, year of recurrence, time to recurrence, and intensity of follow-up, Caucasian men were more likely than African-American men to receive SRT in this study population (OR 1.5; 95% CI 0.7-3.1). However, this difference did not reach statistical significance. The factors that did predict for receipt of SRT were the absence of comorbid conditions (OR 2.1; 95% CI 1.1-4.2), recurrence prior to 1994 (OR 2.8; 95% CI 1.4-5.6), and local (rather than biochemical) recurrence (OR 6.9; 95% CI 2.6-18.6). **Conclusions:** Although the difference in receipt of SRT between Caucasian and African-American men was not statistically significant, the point estimate suggests that Caucasian men were about 50% more likely to receive it. It is possible that this is a real difference, and that a study with a larger sample size would show that.

Keywords: Racial Differences; Prostate Cancer Therapy
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PS1-62:

Evaluation of the National Coalition for Cancer Survivorship (NCCS) - Cancer Survival Toolbox®: A Mixed Methods Approach

Bridget Gaglio[1]; Borsika Rabin[2]; Pamela Goetz[3]; Jo Ann Shoup[2]; Carmen Martin[2]; Michelle Henton[2]; Kathleen Mazor[4]; Richard Street, Jr[5]

[1]Kaiser Permanente Mid-Atlantic; [2]Kaiser Permanente Colorado; [3]National Coalition for Cancer Survivorship; [4]Fallon Community Health Plan / Reliant Medical Group; [5]Texas A&M University

Background/Aims: In 1998, the NCCS released the Cancer Survival Toolbox® (Toolbox), a free, self-learning audio program that can help people develop skills to better meet and understand the challenges of their cancer. The objectives of the current study were to increase the dissemination potential for the Toolbox by learning from individuals who had been diagnosed with cancer about their experiences and preferences related to health information and with the Toolbox specifically. **Methods:** Newly diagnosed cancer patients (N = 42) from Kaiser Permanente Colorado were sent a copy of the Toolbox. Participants were asked to complete a questionnaire at one and three months, post-receipt of the Toolbox, asking how they used the Toolbox, timing of receiving the Toolbox in relation to their diagnosis, and actual usage. A sub-set of individuals who completed the questionnaire participated in interviews at one and three months to further explore experiences related to receiving, using, and understanding the Toolbox. Usability testing was conducted at three months, comparing usage of the original Toolbox and alternative modalities. **Results:** Overall, participants felt the Toolbox was a useful and comprehensive resource. Almost half of the study participants thought the Toolbox provided more useful information compared to other health information sources they found. Many specifically stated they liked the personal stories told on the CDs and that hearing about someone else's experience was very helpful. Participants emphasized wanting to receive the Toolbox at the time of diagnosis. At the three month assessment, participants stated that they found the information in the Toolbox easy to understand and were able to apply the information provided as they reported feeling more comfortable and confident in asking questions and expressing opinions about their care and treatment options. **Conclusions:** Study participants used numerous sources to find cancer-related information, including the Internet, cancer-related organizations, members of healthcare team, family, and friends. Given that people are different in terms of interests, learning style, and comfort using technology, it is important to have cancer-related health information in a multitude of formats and modalities to meet the patients' preferences and needs.

Keywords: Mixed Methods Research; Health Information; Evaluation
doi:10.3121/cmr.2013.1176.ps1-62

Cardiovascular Disease

A3-1:

Outcomes of a Randomized Trial of Home Blood Pressure Telemonitoring with Pharmacist Case Management

Karen Margolis[1]; Stephen Asche[1]; Anna Bergdall[1]; Nicole Trower[1]; Jaime Sekenski[1]; Rachel Pritchard[1]; Patrick O'Connor[1]; JoAnn Sperl-Hillen[1]; Michael Maciosek[1]

[1]HealthPartners

Background/Aims: Patients with high blood pressure (BP) visit a physician on average 4 times per year though fewer than half achieve BP control. Practical, effective, and sustainable models are needed to improve BP management. Hyperlink is a clinic-randomized trial testing an intervention that combines home BP telemonitoring with pharmacist case management in patients with uncontrolled hypertension. **Methods:** We enrolled 450 patients with uncontrolled BP from 16 primary care clinics. Eight clinics (222 patients) were randomized to usual care and 8 clinics (228 patients) to intervention. Intervention patients received home telemonitors that transmit BP data to a secure database. Pharmacists consult with patients by phone and adjust antihypertensive therapy based on home BP data. The intervention lasts 12 months with follow-up to 18 months to observe durability. The primary outcome is BP control at 6 and 12 months, defined as BP ≤140/90 mm Hg (or ≤130/80 mm Hg in patients with chronic kidney disease or diabetes). Data on demographics, medication use and adherence, and satisfaction with care were also gathered. Here we report 6-month BP outcomes. General and generalized linear mixed models are used to accommodate the cluster-randomization. **Results:** Enrollees were 45% female, 82% white, and 12% black, with mean age of 61 years. Mean BP at baseline was 148/85 mm Hg in both treatment groups. Of the 403 attending the 6-month visit (197 usual care, 206 intervention), 45.2% in usual care and 71.8% in intervention achieved BP control (P <0.0001). In usual care, mean systolic BP decreased by 10.8 mm Hg and diastolic decreased by 3.4 mm Hg. In intervention, mean systolic BP decreased by 21.5 mm Hg and diastolic decreased by 9.4 mm Hg. The difference in change between groups was 10.7 mm Hg systolic (P <0.0001) and 6.0 mm Hg diastolic (P = 0.002). Secondary outcomes, including changes in self-reported satisfaction with care, treatment intensification, and medication adherence, will also be reported. **Conclusions:** Home telemonitoring with pharmacist case management was effective at reducing BP for hypertensive patients over 6 months. This intervention may be cost-effective for managing hypertensive patients with uncontrolled BP, especially if results are sustained during the maintenance and post-intervention phases of follow-up.

Keywords: Hypertension; Team-Based Care; Telemonitoring
doi:10.3121/cmr.2013.1176.a3-1

A3-2:

The Signs and Symptoms of Heart Failure are Frequently Documented to Wax and Wane in the Years Prior to a Clinical Diagnosis of Heart Failure: Data from 4,644 Patients Followed in Primary Care

Steven Steinhubl[1]; Jimeng Sun[2]; Rajakrishnan Vijayakrishnan[1]; Roy Byrd[2]; Zahra Daar[1]; David Gotz[2]; Shahram Ebadollahi[2]; Walter Stewart[3]

[1]Geisinger Health System; [2]IBM; [3]Sutter Health

Background/Aims: The diagnosis of heart failure (HF) is frequently delayed until patients are symptomatic enough to require hospitalization. Earlier identification of these patients would allow for the aggressive initiation of preventive strategies, potentially resulting in a decrease in hospitalizations and improved outcomes. **Methods:** Patient Electronic Health Record (EHR) data from 39 community practice clinics within the Geisinger Clinic were used. Among primary care patients, 4,644 incident cases of HF were identified between 2001 and 2010 with their diagnosis date determined by specific operational criteria. A validated natural language processing application was applied to primary care encounter progress notes to identify affirmations and denials of Framingham signs and symptoms for heart failure. **Results:** During a mean duration of 3.4 years of observation preceding the HF diagnosis date, positive affirmations of HF signs/symptoms were frequently documented. The median duration of time between first

documentation of a positive sign/symptom and the date of clinical diagnosis was over 2 years for several, and greater than one year for most signs/symptoms. Surprisingly, the majority of signs/symptoms were documented to come and go (affirmation followed later by a negation) multiple times. In particular, ankle edema, rales, dyspnea on exertion and hepatomegaly were all documented to come and go a median of 5 or more separate times before clinical diagnosis. **Conclusions:** These results suggest that the waxing and waning course of HF signs and symptoms in the years prior to a clinical diagnosis of HF may pose challenges to the earlier diagnosis of HF in a primary care setting. The clinical application of automated tools to identify HF signs and symptoms within the EHR could substantially improve the early identification and treatment of these patients.

Keywords: Heart Failure; Natural Language Processing; Early Diagnosis
doi:10.3121/cmr.2013.1176.a3-2

ECI-2:

Atrial Fibrillation and Outcomes in Heart Failure with Preserved Versus Reduced Left Ventricular Ejection Fraction

David McManus[1]; Grace Hsu[2]; Sue Hee Sung[2]; Jane Saczynski[1]; David Smith[3]; David Magid[4]; Jerry Gurwitz[1]; Robert Goldberg[5]; Alan Go[2]

[1]Fallon Community Health Plan / Reliant Medical Group; [2]Kaiser Permanente Northern California; [3]Kaiser Permanente Northwest; [4]Kaiser Permanente Colorado; [5]University of Massachusetts Medical School

Background/Aims: Atrial fibrillation (AF) and heart failure (HF) are two of the most common cardiovascular conditions nationally and AF frequently complicates HF. We examined how AF impacts adverse outcomes in HF with preserved left ventricular ejection fraction (HF-PEF) vs. reduced ejection fraction (HF-REF) within a large, contemporary cohort. **Methods:** We identified all adults diagnosed with HF-PEF or HF-REF based on hospital discharge and ambulatory visit diagnoses and relevant imaging results between 2005-2008 from four health plans in the Cardiovascular Research Network. Data on demographic features, diagnoses, procedures, outpatient pharmacy use, and laboratory results were ascertained from health plan databases. Hospitalizations for HF, stroke, and any other reason were identified from hospital discharge and billing claims databases. Deaths were ascertained from health plan and state death files. **Results:** Among 23,644 patients with HF, 11,429 (48.3%) had documented AF (9,081 pre-existing, 2,348 incident). Compared with patients who did not have AF, patients with AF had higher adjusted rates of ischemic stroke (hazard ratio [HR] 2.47 for incident AF; HR 1.57 for pre-existing AF), hospitalization for HF (HR 2.00 for incident AF; HR 1.22 for pre-existing AF), all-cause hospitalization (HR 1.45 for incident AF; HR 1.15 for pre-existing AF), and death (incident AF HR 1.67; pre-existing AF HR 1.13). The associations of AF with these outcomes were similar for HF-PEF and HF-REF, with the exception of ischemic stroke. **Conclusions:** AF is a potent risk factor for adverse outcomes in patients with HF-PEF or HF-REF. Effective interventions are needed to improve the prognosis of these high-risk patients.

Keywords: Atrial Fibrillation; Heart Failure; Systolic Function
doi:10.3121/cmr.2013.1176.eci-2

PS1-33:

Clinical Factors Associated with Angina Occurrence, Physical Limitation, and Diminished Quality of Life after Hospitalization for an Acute Coronary Syndrome: Preliminary Data from TRACE-CORE

David McManus[1]; Jane Saczynski[1]; Robert Goldberg[1]; Jerry Gurwitz[1]; David Parish[2]; Catarina Kiefe[1]

[1]University of Massachusetts Medical School; [2]Mercer University School of Medicine

Background/Aims: Contemporary risk profiling and treatment of patients hospitalized with an acute coronary syndrome (ACS) focuses primarily on reducing in-hospital morbidity and improving survival. Despite an increasing focus on improving the transition quality to the outpatient setting of patients hospitalized with ACS, little is known about the factors associated with persistent symptoms and reduced disease-specific quality of life after an ACS hospitalization. **Methods:** A total of 826 adults admitted with an ACS at 6 medical centers in central Massachusetts and Georgia were interviewed during hospitalization and 1-month (1M) after discharge as part of an ongoing study within the Transitions, Risk, and Actions in Acute Coronary Events: Center for Outcomes Research and Education (TRACE-CORE). Medical record abstraction is underway to characterize participants' baseline demographic, clinical, laboratory, and procedural characteristics (n = 86 to date with full data expected in winter, 2013). Participants completed the Seattle Angina Questionnaire (SAQ) 1M after discharge, which includes questions regarding frequency of angina, physical limitation, and disease-specific quality of life (QoL). In the present study, the presence of angina, physical limitation, and QoL at 1M were examined in relation to key clinical characteristics and in-hospital treatment using regression models. **Results:** The mean age of the participants was 63 years, 38% (33 of 86) were women, and 91% (76 of 86) were non-Hispanic white. At 1M after discharge, 59% (51 of 86) reported angina. History of hypertension, heart failure, smoking, lower hemoglobin levels, intra-aortic balloon pump placement, and coronary artery bypass surgery were independently associated with greater physical limitation at 1M after discharge (all *P*'s <0.05). Higher admission respiratory rates were associated with angina occurrence and diminished quality of life at 1M after hospital discharge ($P = 0.05$). **Conclusions:** Several patient and treatment-level factors during ACS admission were related to CHD-specific functional status, angina, and QoL 1M after hospital discharge. These factors may help identify patients at higher risk for poor outcomes after an ACS. Studies are needed to determine if targeted interventions improve post-discharge functional status and quality of life in patients with an ACS.

Keywords: Acute Coronary Syndrome; Angina; Quality of Life
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PS1-34:

Clinical Factors Associated with Cognitive Function in Patients Hospitalized for Acute Coronary Syndromes: Preliminary Findings from TRACE-CORE

Jane Saczynski[1]; David McManus[1]; Jerry Gurwitz[1]; Robert Goldberg[1]; Catarina Kiefe[1]

[1]Fallon Community Health Plan / Reliant Medical Group

Background/Aims: Cognitive impairment (CI) among hospitalized patients is associated with lack of functional recovery, rehospitalization, and death, but limited data exist on cognitive function in patients hospitalized for acute coronary syndromes (ACS). We examine in-hospital clinical and treatment factors associated with cognitive function among patients with an ACS. **Methods:** Adults (n = 1730 to date) in central MA, Atlanta, GA, and Macon, GA, without dementia or delirium, were interviewed during hospitalization for an ACS as part of an ongoing study within the Transitions, Risk, and Actions in Coronary Events: Center for Outcomes Research and Education (TRACE-CORE). Cognitive function was assessed by the Telephone Interview of Cognitive Status (TICS; range = 0-41; impaired = 31 or less). Medical record review (n = 111 to date with full data expected in winter, 2013) was used to abstract baseline characteristics, in-hospital treatment, and in-hospital outcomes. Linear regression analysis examined patient demographics, medical history, key laboratory and treatment characteristics in relation to in-hospital cognitive status. **Results:** Participants were 63% (70 of 111) male, 90% (100 of 111) non-Hispanic white and aged 63.3±12.3 years. The average TICS score was 32.7 ±3 and 23% (26 of 111) were cognitively impaired. In general, patients with CI were only mildly impaired (mean TICS = 28.7). Older age, a history of coronary heart disease and higher maximum troponin I levels during hospitalization for an ACS were associated with significantly lower in-hospital cognitive function (all *P*'s <0.05). There was a trend for lower cognitive function among patients who had undergone CABG ($P = 0.09$). Discharge to a nursing facility was also associated with significantly poorer in-hospital cognitive function ($P < 0.001$). **Conclusions:** Medical history and in-hospital clinical factors are associated with cognitive status during hospitalization for ACS. Screening for CI, which is common among patients hospitalized for ACS, would identify patients who may require tailored transitional care or closer post-discharge monitoring. Future work in this study will examine which clinical characteristics are associated with transient (in-hospital only) as compared with longer-term cognitive dysfunction.

Keywords: Acute Coronary Syndromes; Cognition; Epidemiology
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