questionnaire within 72 hours of hospital admission to obtain information regarding occurrence and timing of HF symptoms, care seeking behavior, and general knowledge of HF. Cognitive function in 3 sub-domains was assessed using standardized measures of memory, processing speed, and executive function. Cognitive impairment, defined using established norms, was calculated separately for each sub-domain. **Results:** One half of patients (51%, 141 of 277) had impaired processing speed, 42% (117 of 277) had impaired memory, and 65% (180 of 277) had impaired executive function. Approximately one third of patients (32%, 89 of 277) were impaired on only 1 domain, one third (34%, 95 of 277) were impaired in 2 of 3 domains and one fifth (19%, 53 of 277) were impaired on all 3 domains. Only 14% (40 of 277) had no evidence of CI. Patients with a high degree of CI (those impaired in multiple domains) were older, more likely to have less than a high school education, and were more likely to have a history of HF compared to patients with less CI (all p 's <0.01). Patients with a high degree of CI also had significantly lower overall knowledge of the signs, symptoms, and self-management activities associated with HF (p <0.05). **Conclusions:** These preliminary data suggest that most patients hospitalized for decompensated HF are cognitively impaired. Cognitively impaired patients with HF may have poorer knowledge of the signs and symptoms associated with an exacerbation of HF as well as poorer knowledge of self-management techniques which may lead to poorer care seeking practices and long-term outcomes.

Keywords: Cognitive impairment, Decompensated Heart Failure, Care for older adults

doi:10.3121/cmr.2010.943.c-b4-01

C-B4-02:

Determining Genetic Risk Factors for Post- Hospitalization development of Deep-Vein Thrombosis

Deanna Cross, PhD¹; Mark Craven, PhD²; Steven Yale, MD³

¹Marshfield Clinic Research Foundation; ²University of Wisconsin-Madison;

³Marshfield Clinic

Background: Venothromboembolism (VTE) including deep venous thrombosis (DVT) and pulmonary embolism (PE) are significant health care problems. A highly specific DVT risk stratification model requires a combination of genetic, environmental, clinical, laboratory and radiographic measurements. Genetic factors associated with DVT in post-hospitalized medical and surgical patients are incompletely understood. **Aim:** Using the Personalized Medicine Research Project (PMRP) population and a limited number of disease associated polymorphisms were used to determine whether these markers were associated with DVT in the post-hospitalization period. **Methods:** Marshfield Clinic patients who have experienced a DVT between 1999 and 2007 enrolled in the PMRP were genotyped for 52 disease associated polymorphisms (N=1124). From these individuals we identified 451 who experienced a DVT after post-hospitalization for a medical (N=164) or surgical (N=136) procedure or both (N=151). This cohort was compared to the PMRP population that had a recorded hospitalization without a post-hospitalization DVT during the same time period (N=1662). **Results:** Polymorphisms in APOB (rs1042031), PLA2 (rs2227564), HTR2A (rs6313) and the Vitamin D receptor haplotype (rs731236 and rs7975232) were associated with post hospitalization DVT. When the population that incurred a DVT was stratified by DVT category (post medical, post surgical or both), the PLA2 polymorphism was most strongly associated with individuals experiencing a DVT post-surgically. Vitamin D receptor haplotype was significantly associated with individuals experiencing both post medical and post surgical DVTs, and polymorphisms associated with cholesterol and lipid levels were most likely to be associated with post-medical DVTs. **Conclusions:** This hypothesis generating study demonstrates that there are many polymorphisms that are associated with DVT that have yet to be characterized. Categorization of associated DVT polymorphisms will involve careful interrogation of both the environmental conditions as well as genetic alleles of individuals. Genes such as PLA2, HTR2A, and Vitamin D are just now being investigated for thrombogenic effects and in future may lead to a better

understanding of indentifying the individuals at risk for a DVT post hospitalization.

Keywords: Deep Venous Thrombosis, Post medical deep venous thrombosis, Deep venous thrombosis post-hospitalization

doi:10.3121/cmr.2010.943.c-b4-02

C-B4-04:

Underuse of Aspirin in Women for Primary and Secondary Prevention of Cardiovascular Disease Events

Cathleen Rivera, MD, MS¹; Catherine McNeal, MD, PhD¹; Juhee Song, PhD¹; Joji Varghese, MD¹; Marcia Ory, PhD, MPH²

¹Scott and White; ²Texas A&M Health Science Center

Background and Aims: Cardiovascular disease (CVD) is the leading cause of death among women. Consistent with studies documenting that aspirin (ASA) use decreases the risk of CVD events in certain groups, the American Heart Association (AHA) published specific evidence based guidelines for ASA use in women. This paper evaluates the self-reported use of ASA among women and examined characteristics of those most likely to be adhering to clinical guidelines. **Methods:** Data from 127 healthcare centers across the U.S. using a commercial, web-based CVD risk assessment tool (HeartAware™) were analyzed. Volunteer respondents answered questions about their CVD risk factors, the presence or absence of coronary, cerebral, peripheral arterial disease, diabetes, and medication use including daily ASA. Individuals who, based on the AHA 2007 guidelines should be taking ASA (for primary and secondary prevention) were included in the analysis. Univariate and multivariate logistic regression analyses were performed to identify factors significantly associated with ASA intake. **Results:** Of the 21,199 women who should be on ASA based on guideline information, only 42% reported the use for primary prevention and 68% for secondary prevention. Multivariate regression analysis found that African Americans (OR = 0.61, 95% CI 0.53-0.70, p <0.0001) and Hispanics (OR = 0.67, 95% CI 0.53-0.83, p =0.0004) were less likely than Caucasians to be taking ASA. Other factors that contributed significantly (p <0.001) to ASA use were a relationship with a PCP or cardiologist, taking blood pressure medications, past history of smoking, a family history of heart disease, and a family history of high cholesterol. **Conclusions:** Findings from a large cross-sectional cohort revealed that 58% of women who should be taking ASA for primary prevention and 32% of women who should be taking ASA for secondary prevention of CVD events were not following national guidelines. Individuals from racial/ethnic minorities were less likely to be taking ASA compared with Caucasians suggesting targets for intervention. These findings emphasize the need for ASA education among clinicians to provide guidance for targeting educational efforts that can improve CVD outcomes in women.

Keywords: Cardiovascular disease in women, Aspirin use, Cardiovascular disease outcomes

doi:10.3121/cmr.2010.943.c-b4-04

PS1-02:

Factors Associated with Medication Adherence and Emergency Room Visits in the Brazos Valley

Matthew Smith, PhD, MPH¹; Marcia Ory, PhD, MPH¹; Angela Hochhalter, PhD^{1,2}; Alan Stevens, PhD^{1,2}; SangNam Ahn, PhD, MPSA¹

¹Texas A&M Health Science Center; ²Scott & White Healthcare

Background and Aims: Medication nonadherence has been linked to poor cardiovascular health outcomes and increased healthcare utilization and costs. While studies examine medication pill counts, less is known about intentional adjustments in medication use due to economic factors. The purpose of this study is to examine factors affecting economically-driven medication nonadherence and the role of cardiovascular risk factors and disease in explaining emergency room (ER) use. **Methods:** In 2006, survey instruments were mailed to a random sample of households in the seven county Brazos Valley region of Texas (n=1,935). Data were analyzed from a sample of 578 adults age 50 years and older. Study variables include: age