C-B1-02:

Strategies Used by Physicians to Treat Hypertension

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Background and Aims: There is high variation in the way hypertension is managed by primary care physicians (PCP's). The aim of this study was to evaluate correlations between the frequency of different treatment strategies and overall achievement of blood pressure goals. **Methods:** We reviewed 280,423 encounters with 127 HealthPartners PCP's totaling 57,101 patients with hypertension. Encounters occurred from 1/2/07 to 5/29//09. For each encounter, data included blood pressure, blood pressure drugs in the classes ACE, ARB, Diuretic, Beta Blocker, Alpha Blocker and Calcium Channel Blocker, and the presence of the co-morbid conditions of diabetes, chronic kidney disease (CKD) and heart disease. The dependent variable was the proportion of a physician's encounters with blood pressure at goal. Independent variables included start of a new BP medication, increased dose of a pre-existing BP medication, visit interval (time to next encounter), and comorbid conditions. Patients were considered at goal if both the diastolic and systolic blood pressure met the recommended criteria. **Results:** Of the encounters, 31% were not at goal. Of these patient with encounters not at goal, 15.5% were started on a new class of BP medication and a higher use of this strategy correlated with a higher overall proportion of encounters at BP goal (r=.51; p<0.0001). At 14.9% of the encounters there was an upward adjustment of the dosage of a medication and a use of this strategy also correlated with overall proportion of patient encounters with BP at goal (r=.43; p<0.0001). The average encounter interval was significant (r=.21; p=0.0215) only for patients with stage 2 hypertension. The comorbid conditions of diabetes (r=.38; p<0.0001) and kidney disease (r=.21; p=0.0171 were both related to less success at achieving BP goals. **Conclusions:** Physicians who were more likely to start new classes of medications or upwardly titrate BP drugs at encounters had a higher proportion of their patient encounters at recommended blood pressure goals. Shorter visit interval was also beneficial in patients with stage 2 hypertension (greater than 20/10 over goal). Not surprisingly, physicians had more difficulty achieving blood pressure goals in patients with diabetes and kidney disease.

Keywords: Hypertension, Blood pressure study, Treatment strategies

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C-B1-03:

The Association of Optimal Lifestyle Adherence with Emotional Health Indicators Among Active Employees

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Background and Aims: Adherence to an optimal lifestyle defined as adequate physical activity (=150 minutes per week), no use of tobacco, moderate alcohol use (=1 drink/d for women or =2 drinks/d for men), and eating five servings of fruits and vegetables per day has been associated with as much as 14 years of increased longevity and improved functional health status. Unfortunately, adherence to these four behaviors is relatively low in the United States. Furthermore, it is unclear the extent to which adherence to these health behaviors among working adults is associated with emotional health indicators such as self-reported stress, depression, depression risk, overall emotional health, and self-perceived general health. Improved understanding of this impact may hold significant potential for population health improvement strategies implemented via the worksite. The purpose of this investigation was to define the association of varying levels of self-reported optimal lifestyle with self-reported emotional health risks. **Methods:** All data were self-reported and collected as part of a health assessment process implemented through employer-sponsored programs during the year 2007. The number of subjects (N total=28,897) reporting from zero to 4 behaviors were 77; 1,294; 8,162; 15,085; and, 4,279 respectively. Emotional health variables included self-reported stress concerns, depression, depression risk based on personal history of depression, emotional health concerns, and self-perceived general health status. **Results:** The ratio of the percentage of the population with a positive response if no optimal lifestyles are practiced/ the percentage of the population with a positive response if 4 optimal lifestyles are practiced is 3.8 for stress concerns, 1.9 for depression, 14.2 for high risk for depression, 5.3 for emotional health concerns and 5.6 for self-perceived poor general health status. **Conclusions:** Adherence to an optimal lifestyle is associated with lower rates of self-reported stress, depression, and poor perceived health status. The relationship is most likely bi-directional. If it is, enhanced focus and attention to population-based strategies that improve adherence to these four behaviors may positively affect a variety of emotional health outcomes, and addressing issues of emotional health may help individuals adhere to healthy lifestyles.

Keywords: Optimal Lifestyle, Emotional health, Healthy lifestyle

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PS2-24:

Improving Breast Cancer Surgery Quality Through a Collaborative Surgical Database

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Background and Aims: Breast cancer surgery is the most common cancer operation in the United States. While well established clinical trials performed more than 20 years ago have clearly established the equivalency of partial mastectomy and mastectomy regarding the endpoint of overall survival for breast cancer, controversies in the surgical management of breast cancer remain. Few guidelines exist regarding performance metrics and quality outcomes specific to breast cancer surgery. In order to identify more meaningful breast cancer surgery quality measures, the Vermont Breast Cancer Surgery Outcomes (VBCSO) database was initiated at the University of Vermont in 2003 and has been maintained continuously and successfully tracked outcomes of initial surgical treatment for over 1000 incident breast cancers. The database was specifically designed to assess measures of quality for a low risk cancer surgery that might impact patient treatment decisions, requirements for additional surgery, and perhaps ultimately cancer recurrence. We have recently been funded to expand this database to three CRN sites to evaluate surgical outcomes from a larger number of surgeons, hospitals and geographic regions. **Methods:** We will create a database of all women diagnosed with a primary breast cancer undergoing breast cancer surgery between 2003-2008 at three CRN sites (Kaiser Permanente Colorado, Group Health Cooperative, and Marshfield Clinic) using the Virtual Data Warehouse and medical record review. This database will be combined with the existing VBCSO database to evaluate potential measures of surgical quality. **Results:** To demonstrate the value of establishing this multicenter database, and the potential impact it could have on the quality of surgical treatment provided to breast cancer patients, the data will be analyzed initially to identify sources of (1) variation in mastectomy rate, (2) variation in initial partial mastectomy positive margin rates, and (3) variation in re-excision rates following initial partial mastectomy. **Conclusion:** An electronic clinical network that has detailed data on breast cancer diagnoses, surgical procedures, and surgical outcomes will allow for several comparative effectiveness research hypotheses to be tested. The development of data protocols and data capture tools as part of this proposal will facilitate participation by a larger network of hospitals in the future.

Keywords: Breast cancer surgery, Breast cancer database, Quality measure outcomes

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