

858

# JOB STRESS AND INCIDENCE OF CARDIOVASCULAR DISEASE AMONG OLDER WORKERS IN THE HEALTH AND RETIREMENT STUDY. \*J Li, J Grosch, and T Alterman (Constella Group, Durham, NC 27713)

Associations between job stress and risk of developing cardiovascular disease (CVD) among older workers using data from the US Health and Retirement Study (HRS) will be presented. HRS is an ongoing national panel study conducted biannually since 1992. Previous cross-sectional studies have shown associations between prevalence of CVD and job stress. However, these two variables have rarely been studied over time in a large national cohort such as that in HRS. Older workers ( $n = 6670$ ) ages 50–62 years at baseline were followed for up to 12 years. Job stress was measured by the question “my job involves a lot of stress”, coded on a 4-point Likert scale (1 = strongly agree, 4 = strongly disagree). Proportional hazard regression was used to model the effect of baseline job stress on hypertension (HTN) with adjustment for gender, race, ethnicity, education, diabetes, high cholesterol, smoking, body mass index, and family income; and on heart problems with additional adjustment for HTN. Age when conditions developed or censored was used as time-scale. Workers having conditions at baseline were excluded, leaving 4578 for analysis of HTN and 6126 for heart problems. With disagree and strongly disagree combined as the reference level, the estimated hazard ratio (HR) and 95% confidence interval (CI) of HTN is 1.32 (1.13–1.53) for strongly agree and 1.02 (0.90–1.15) for agree. For heart problems, HR and 95% CI is 1.30 (1.04–1.61) for strongly agree and 1.05 (0.91–1.21) for agree. Results show that a high level of job stress is predictive of CVD incidence in older workers, and has important implications for the prevention of CVD-related health problems in the workplace.

860-S

# PARKED VEHICLES KILL. \*T Hammond (Oregon Health & Science University, Portland, Oregon, 97239)

Oregon is one of 15 states with an occupational fatality assessment program sponsored by the National Institute for Occupational Safety and Health. The Oregon program has collected 3 years of data, 2003–05, involving 178 worker fatalities in 161 incidents. Surveillance involves coding each incident for industry, occupation, and event, while also building a file from law enforcement, medical examiner, and other investigation reports. Constructing a narrative of each incident provides details that may help identify areas of concern and root causes, which coding alone may not capture. An analysis of fatal transportation incidents illustrates the usefulness of narrative information in a surveillance program. Transportation events comprise 44% of all occupational fatal events (Chart 1), when defined as occurring during the “normal operation” of a vehicle. Counting any fatality that involves a vehicle raises the share of transportation-related events to 62% of the total. Tabulating this larger group of transportation-related fatalities according to setting and vehicle (Chart 2) raises into prominence a significant, neglected hazard posed by parked vehicles, usually involving the operator outside the vehicle (Chart 3). A hazard alert was produced and circulated in 2005 for this observed trend in fatalities, with the arresting title, “Parked Vehicles Kill” (Chart 4). The one-page flyer exhibits the national institute model for safety-education materials: combining narrative, recommendations, and artwork. Other exhibited materials include annual reports for Oregon occupational fatalities, 2003 and 2004, a hazard-alert manual for young workers, and original investigation reports that exemplify the national institute template for occupational fatality assessment.

859-S

# MORTALITY ASCERTAINMENT FOR WOMEN VETERANS: A COMPARISON OF VITAL STATUS SOURCES. \*L S Savas, D J del Junco, S P Coan and S W Vernon (University of Texas-Houston School of Public Health, Houston, TX 77030)

Background: To advance epidemiologic research on the unique occupational cohort of women veterans, this study assessed the completeness of mortality ascertainment using deterministic linkage methods. Methods: Using the National Registry of Women Veterans (NRWV), different strategies were used to assemble two master lists of women veteran decedents: (1) all Texas decedents 1979–2002, identified using death certificate data (as reported to the National Death Index, NDI), and (2) a national sample of decedents (ages  $\geq 52$  years in 2000), identified by a National Cancer Institute-funded intervention trial using multiple sources (e.g., Experian, next of kin, online genealogy death index, NDI, Metronet or Post Office). The two master lists were then cross-linked with data sources available through the VA: (1) Social Security Administration's Death Master File (SSA-DMF), (2) VA Beneficiary Identification and Records Locator Subsystem (BIRLS) Death File, and (3) VA Patient Treatment File (PTF). Database variations of completeness and quality were examined by demographic characteristics. Results: Compared with the 6,469 deaths identified by Texas death certificates, SSA-DMF, BIRLS and PTF sources identified 93.3%, 76.9%, and 5.0%, respectively. Of the 2,247 deaths from the national sample, SSA-DMF, BIRLS and PTF sources identified 95.9%, 58.2%, and 8.7%, respectively. The combination of BIRLS and SSA-DMF identified 97.1% for Texas and 99.4% for the national sample, suggesting nearly complete ascertainment from these two sources. This study highlights the potential effectiveness of electronic sources of death information for women veterans, helping advance research requiring vital status information.

861

# IS CARPAL TUNNEL SYNDROME AN OCCUPATIONAL HAZARD AMONG FEMALE NURSE ANESTHETISTS? \*J H Diaz (LSU Health Sciences Center, New Orleans, LA, 70112)

Repetitive stress injuries of the upper extremities, particularly carpal tunnel syndrome (CTS), now exceed back injuries as the most commonly reported occupational injuries in the US. Female nurse anesthetists (NAs) may face greater occupational risks for developing CTS than female operating room nurses (ORNs). To evaluate risks of CTS in NAs, a cross-sectional, case-control study was conducted among NAs and ORNs working together in the same operating room (OR) environment. 244 female OR workers were classified by job titles as case-NAs ( $n = 63$ ) or control ORNs ( $n = 181$ ). Pregnant and 20+% overweight OR workers were excluded from the study, conducted in 4 hospitals, 2 each in 2 different cities of the same state. The case definition of CTS was established by either prior surgical correction of CTS or a combination of 4 positive diagnostic findings, including gold standard nerve conduction studies. There were 10 cases of CTS among NAs and 10 cases among ORNs. The crude odds ratios (OR) for CTS in NAs were 3.23 for unilateral CTS, 3.58 for bilateral CTS, and 3.23 for left hand CTS. When adjusted for non-dominant left hand and/or bilateral CTS, the OR for CTS in NAs was 3.85. Finally, the Yates-corrected chi-square for CTS in NAs was 5.346 ( $P = 0.021$ ) and 5.075 ( $P = 0.024$ ) for non-dominant left hand and/or bilateral CTS. In addition to cardiologists and dentists, NAs may represent another high-risk occupation for CTS in healthcare workers. Further prospective studies in larger, well-matched populations are indicated.





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