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Sex Differences in Work-Related Injury Rates Among Electric Utility Workers. M. Kelsh* and J. Sahl (EcoAnalysis Inc., Ojai, CA 93023).

Few epidemiologic studies have examined sex differences in work-related injury rates. The authors examined injury trends by the type of injury, severity of injury, and how the injury occurred among a cohort of 9,582 female and 26,898 male electric utility workers for the years 1980-1992. Sex-specific unadjusted injury rates were consistently higher for male workers. However, the rate ratios comparing female to male workers were consistently above 1.0 after adjusting for age, job experience and occupation. Mantel-Haenszel summary rate ratios and 95% confidence intervals were 1.49 (1.44-1.54) for all types of injuries, 1.3 (1.2-1.4) for head and neck injuries, 1.5 (1.4-1.6) for upper extremity injuries, 1.20 (1.08-1.25) for back injuries, and 2.1 (2.0-2.3) for lower extremity injuries. Severity rate ratios were also elevated suggesting that female workers have higher rates for lost time due to injuries than male workers. The rate ratios did not vary by injury severity suggesting that potential reporting bias was unlikely. Differences between male and female workers in training (formal or informal), physical capacity, task assignments, and other factors may explain these injury trends.

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Respiratory symptoms and peak expiratory flow rate in a group of paper workers. M.H. Shamssain,* S. McEwan, and R.A. Clark (Department of Respiratory Medicine 8 and Scottish Heart and Arterial Disease Risk Prevention, University of Dundee, Scotland, UK).

We studied 423 paper workers from a paper mill in Scotland. Mean (S.D) of age in males and females were 42.2 (12.0) and 39.9 (12.7) y, respectively. Exposure was measured in number of years of employment in the industry. Mean (S.D) of exposure in males and females were 9.0 (5.5) and 8.3 (4.0) y. Respiratory symptoms and peak expiratory flow rate (PEFR) were recorded. The prevalence (%) of SOB more than 2 months, SOB at work, cough more than 4 weeks, and stuffy nose most days were 7.9%, 3.7%, 4.2% and 12.9%, respectively. The prevalence of respiratory symptoms increased with exposure up to 10 y. Mean (S.D) of PEFR and % pred PEFR in male smokers were 563.3 (65.9) l/min and 91.5 (10.0)% while in female smokers they were 418.0 (83.2) l/min and 87.3 (15.3)%, respectively. There was no relationship between exposure and PEFR. Within this duration of employment, the exposed workers had increased prevalence of respiratory symptoms, particularly in the upper respiratory tract and there was no deficit in PEFR due to exposure in this paper mill.

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Respiratory Disease Risk Within Industry and Occupation in the National Health Interview Survey. S. Game, K.M. Bang,* and R.M. Castellan (National Institute for Occupational Safety and Health (NIOSH), Morgantown, WV 26505).

This analysis evaluated self-reported lung cancer, asthma, chronic bronchitis, emphysema, and dust diseases of the lung by industry and occupation. Data was obtained from the 1988 National Health Interview Survey. The analysis was based on 42,487 respondents who reported working at sometime during their life. Prevalence rate ratios (PRR) were computed overall, by sex, race and smoking status for each condition. Overall, by industry, lung cancer PRR was highest within agriculture/forestry/fishing (PRR=3.5, 95% CI=1.1,8.2); and dust disease PRRs were highest in mining (PRR=23.3, CI=13.6,37.3) and construction (PRR=2.6, CI=1.4,4.4). By occupation, lung cancer PRRs were elevated in farming/forestry/fishing (PRR=3.5,CI=1.1,8.2) and laborers/equipment cleaners (PRR=3.6,CI=1.3,8.0); and dust disease PRRs were elevated in precision production (PRR=5.7, CI=4.2,7.7) and machine operators (PRR=2.3, CI=1.4,3.6). Some results of this analysis are consistent with known occupational hazards; others highlight industries and occupations for which further investigation of respiratory hazards may be warranted.

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The epidemiology of induction of labor. E.R. Luther,* C.V. Ananth, and D.A. Savitz (Dalhousie University, Nova Scotia, Canada, B3H 4N1; University of North Carolina, Chapel Hill, NC 27599).

The generally reported association of labor induction with increased risks of intervention and other complications of labor and delivery may be attributed to selection bias. Any increased risks associated with the elective induction of labor in an otherwise uncomplicated pregnancy should be minimal and require full discussion between caregiver and patient. Detailed clinical information from 1988-91 in a population with 50,000 births permitted a comparison of interventions, birth outcomes, and morbidities (mother and infant) between similar cohorts of women who did (n=289) or did not (n=19, 119) undergo elective inductions of labor. Unadjusted analysis revealed an increased requirement for analgesia in induced mothers (relative risk (RR)=1.30), due mainly to increased utilization of narcotics and entonox, although not due to epidural analgesia. Also, mothers underwent more episiotomies (RR=1.24) and experienced more postpartum hemorrhage (RR=1.59) in the induced group. Babies of induced mothers had increased hyperbilirubinemia (RR=1.38) and phototherapy (RR=2.25). The requirement for obstetric intervention or operative delivery was not increased in the induced group. Collation of an extensive list of intrapartum and postpartum complications showed no increased risks to mothers, infants and mother-infant pairs. Risks associated with elective induction appear to be minimal, although important, and require full disclosure to the patient prior to the decision to induce.

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Respiratory Disease Risk Within Industry and Occupation in the National Health Interview Survey. S. Game, K.M. Bang,* and R.M. Castellan (National Institute for Occupational Safety and Health (NIOSH), Morgantown, WV 26505).

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SESSIONS

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control

Memorandum

Date November 18, 1994

From Statistician (Health)
Surveillance Section, EpIB

Subject Reprint of Publication

To Director, DRDS
Through: Chief, EpIB [signature] 11/21/94
Chief, Surveillance Section EpIB [signature] 11/21/94

Attached is a reprint of an article or publication which has recently appeared in the scientific literature. The DRDS clearance is #94-079A. It is provided for your review and retention.

REFERENCE:

Game S, Bang K, and Castellan R. Respiratory Disease Risk Within Industry and Occupation in the National Health Interview Survey. Supplement to: American Journal of Epidemiology Vol. 139, No. 11, p S61, 1994.

[signature]

Steve Game

Attachment

cc:
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