Night work and breast cancer in a cohort of female health care employees in Stockholm, Sweden

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Introduction If night work is associated with female breast cancer is controversial and of paramount importance. The IARC has classified night shift work as probably carcinogenic to humans, but epidemiological evidence was limited due to problems in the quality of exposure assessments. This study aimed to investigate the risk of breast cancer in a cohort with detailed and registry-based data on night work.

Material and Methods The cohort comprised 25,585 women (nurses and nursing assistants) employed one year or more between 2008 and 2016 in the health care sector in Stockholm. Information on work schedules was obtained from employment records. Breast cancer cases were identified from the national cancer registry and information on childbirths was obtained from the national medical birth registry. Hazard ratios were estimated by a discrete time proportional hazards model, adjusting for age, country of birth, profession, and childbirth.

Results The adjusted hazard ratio of post-menopausal breast cancer in association with ever vs. never working nights was 1.31 (95% CI 0.91–1.85). Eight or more years of night work was associated with an increased risk of postmenopausal breast cancer, HR = 4.33 (95% CI 1.45–10.57), but based on five cases only. There was no trend in risk with number of years of night work or total number of night shifts. No elevated risks were found for premenopausal breast cancer.

Conclusions This study indicated an elevated risk of postmenopausal breast cancer in women after eight years or more of night work and gives some support for a causal association. This finding was based on few cases and should be interpreted with caution. The study is limited by a short period of follow-up, a low number of high-exposed cases, and a lack of information on night work before 2008.

Occupational asbestos exposure and gastrointestinal cancers: systematic review and meta-analyses

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Introduction To summarize the epidemiological evidence on occupational asbestos exposure and the risk of esophageal, stomach and colorectal cancer.

Methods The search strategy was developed by investigators with occupational hygiene, exposure assessment, cancer epidemiology, and systematic review expertise; and applied to MEDLINE, Web of Science, Embase, CINAHL and Scopus databases with no limits on publication year, country/region or date.