

Poster Presentation

Cancer

0432 PARENTAL EXPOSURE TO PAINTS AND RISK OF CHILDHOOD CANCER

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Objective Even though childhood cancer is a rare disease, it is one of the main causes of death among children in the Western world. Not much is known about the causes of childhood cancers but parental occupational exposures have been suggested by a number of epidemiological studies, including exposure to paints.

Methods and materials All childhood cancer cases (0–15 years) in Denmark from 1968–2012 (n=5,711) were retrieved from the Danish Cancer Registry and population controls (1:100) were randomly selected and matched by age and sex. Maternal and paternal occupational history was retrieved by the Supplementary Pension Fund. Potential confounders were retrieved through the Medical Birth Registry. Register linkages were conducted using the unique identification number assigned to all Danish residents.

Results Preliminary results for cancer of all sites show an OR of 0.89 (95% CI: 0.71–1.01) and 0.86 (95% CI: 0.73–1.01) for maternal and paternal exposure to paint, respectively, after controlling for potential confounders, including SES, maternal smoking, birth order, previous miscarriage, malformation and parental age. Increased but insignificant ORs were found for acute lymphatic leukaemia, non-Hodgkin lymphoma, ependymoma, astrocytoma, Burkitt lymphoma, central nervous system cancers, Ewing sarcoma, melanoma and hepatoblastoma for maternal exposure and acute myeloid leukaemia, glioma, melanoma, neuroblastoma and hepatoblastoma for paternal exposure.

Conclusion Preliminary results have shown little and insignificant effect of parental paint exposure in relation to childhood cancer risk.

Poster Presentation

Disease Surveillance

0433 TOWARDS AN IDEAL NATIONAL WORK-RELATED ILL HEALTH SURVEILLANCE SYSTEM IN GREAT BRITAIN

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Population-based occupational health surveillance includes work-related ill health surveillance and workplace health risk exposure surveillance. It is an important intelligence gathering system at the national level, which supports the planning, monitoring and evaluation of measures to prevent work-related ill health. The

intelligence is essential for targeted intervention, prioritisation, tracking progress and evaluation of impact.

To make best use of resources for intelligence gathering, the approaches used should be regularly assessed and monitored to ensure they remain fit-for-purpose, cost-effective and forward looking. In the context of the strategic approach for research planning and prioritisation in the Health and Safety Executive (HSE), a series of workshops were developed.

One of the HSE internal workshops was organised in January 2017. Some, 26 (90%) of the 29 invited stakeholders have participated to develop a common vision for a population-based work-related ill health surveillance system that will continue to meet HSE's intelligence needs now and in the future;

Following detailed assessments of the gaps in the current system, a wide range of innovative approaches were explored. Some practical first steps to improve the system were recommended with an emphasis on more systematic and strategic data collection. The key characteristics of an ideal system were also identified, including new features on case investigation and detecting new/emerging work-related ill health risks to inform timely preventative actions. The outputs of the workshop are presented. They have informed HSE priorities in the continued development of the system to support its mission to prevent work-related ill health.

Oral Presentation

Dusts and Fibres

0434 A META-ANALYSIS OF OCCUPATIONAL SILICA EXPOSURE AND RISK OF AUTOIMMUNE RHEUMATIC DISEASES: DOES STUDY QUALITY MATTER?

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Objectives Increased risks of rheumatoid arthritis, small vessel vasculitis, systemic lupus erythematosus, and systemic sclerosis have been observed following crystalline silica exposure. Our aims are to estimate pooled risk estimates and assess the impact of study quality.

Methods We followed the PRISMA criteria, identified 1162 articles, and included 21 studies that we classified according to eight quality parameters (high vs. low). We estimated pooled overall and disease specific odds ratios (ORs) with random effects meta-regressions.

Results We observed an increased overall OR of 2.3 (1.7–3.1, 21 studies) and for rheumatoid arthritis (OR 1.7, 95% CI 0.8–3.41, 6 studies), small vessel vasculitis (OR 2.4, 95% CI 1.2–4.7, 6 studies), systemic lupus erythematosus (OR 2.8, 95% CI 0.5–14.7, 3 studies), and systemic sclerosis (OR) 2.9, 1.7–4.9, 6 studies). The following high-quality characteristics