of injury), while most reported verbally (58.9%) to coworkers/managers or documented in the patient’s chart (14.9%).

Conclusion While the prevalence and number of violent events was high, the reporting of events by workers into a formal system was low. Reporting systems developed specifically for capturing type II violent events are needed for purposes of informing and evaluating targeted workplace violence prevention strategies.

Session: 30. Lymphoma and leukemia

377 OCCUPATION AND RISK OF LYMPHOID AND MYELOID LEUKEMIA IN THE EUROPEAN PROSPECTIVE INVESTIGATION INTO CANCER AND NUTRITION (EPIC)

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Objectives Established risk factors of leukemia do not explain the majority of leukemia cases. Previous studies have suggested the importance of occupation and related exposures in leukemogenesis. We evaluated possible associations between job title and selected hazardous agents and leukemia in the European Prospective Investigation into Cancer and Nutrition.

Methods The mean follow-up time for 241,465 subjects was 11.20 years (SD: 2.42 years). During the follow-up period, 477 cases of myeloid and lymphoid leukemia occurred. Data on 52 occupations considered a priori to be at high risk for developing cancer were collected through standardized questionnaires. Occupational exposures were estimated by linking the reported occupations to a Job exposure matrix. Cox proportional hazard models were used to explore the association between occupation and related exposures and risk of leukemia.

Results Risk of lymphoid leukemia significantly increased for working in chemical laboratories (HR = 8.35, 95% CI: 1.58–44.24), while the risk of myeloid leukemia increased for working in the shoes or other leather goods industry (HR = 2.54, 95% CI: 1.28–5.06). Exposure specific analyses showed a non-significant increased risk of myeloid leukemias for exposure to benzene (HR = 1.15, 95% CI: 0.75–1.40; HR = 1.60, 95% CI = 0.95–2.69) for the low and high exposure categories respectively. This association was present both for acute and chronic myeloid leukemia at high exposure levels. However, numbers were too small to reach statistical significance.

Conclusion Our findings suggest a possible role of occupational exposures in development of both lymphoid and myeloid leukemia. Exposure to benzene seemed to be associated with both acute and chronic myeloid leukemia.

379 OCCUPATIONAL EXPOSURE TO TRICHLOROETHYLENE AND RISK OF NON-HODGKIN LYMPHOMA AND ITS MAJOR SUBTYPES: A POOLED INTERLYMPH ANALYSIS

P C Cocco, 1Veimeulen, 2Flore, 3Nonne, 4Campagna, 5Purdue, 6Blair, 7Moreau, 8orsi, 9Becker, 10De Sanjosé, 11Hange, 12Holly, 13Romano, 14Seniori Costantini, 15borelli, 16Zheng, 17Kricker, 18Massey University, Wellington, New Zealand; 19Fred Hutchinson Cancer Research Center, Seattle, United States of America; 20IPHT, Lyon, France; 21University of Cagliari, Cagliari, Italy; 22University of Melbourne, Melbourne, Australia; 23National Cancer Institute, Washington, United States of America; 24IARC, Lyon, France; 25University of Chicago, Chicago, United States of America; 26Dem, Villejuif, France; 27Catalan Institute of Oncology, Barcelona, Spain; 28NCI, Washington, United States of America; 29University of California, San Francisco, United States of America; 30University of York, York, United Kingdom; 31Center for Study and Prevention of Cancer, Florence, Italy; 32BC Cancer Research Center, Vancouver, Canada; 33Yale school of Public Health, New Haven, United States of America; 34University of Sydney, Sydney, Australia

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Objectives A range of occupations have been associated inconsistently with an elevated NHL risk. In this large, pooled study, we investigate the relationship between occupation and NHL and NHL subtypes.

Methods This pooled study of 10 NHL case-control studies participating in the InterLymph consortium, included 10,046 cases uniformly classified by subtype and 12,025 controls. Occupational histories were classified according to the ISCO 1968 classification, and occupations previously associated with increases in hematologic cancer risk were grouped into 26 a priori high risk occupational groups. Odds ratios, adjusting for centre, age and sex were determined for the a priori groups as well as all ISCO occupational codes including a minimum of 10 cases. Analyses were repeated by sex and for the subtypes diffuse large B-cell lymphoma (DLBCL; n = 3,061), follicular lymphoma (FL; n = 2,140), chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL; n = 1,014) and T-cell lymphoma (n = 632).

Results DLBCL risk was elevated for textile workers (OR: 1.19; 95%CI: 1.01–1.41); field crop and vegetable farm workers (1.50; 1.15–1.97); charworkers, cleaners and related workers (1.27; 1.03–1.58) and hairdressers (1.47; 1.08–2.00). FL risk was elevated for unspecified labourers (1.28; 1.06–1.53) and spray painters (2.67; 1.36–5.25). CLL/SLL risk was elevated for women’s hairdressers (2.69; 1.43–5.03); general farm workers (1.44; 1.13–1.84); pre-primary education teachers (2.00; 1.04–3.87) and printing pressmen (6.52; 2.79–15.2). T-cell lymphoma risk was elevated for textile workers (1.60; 1.18–2.17); wood workers (1.54; 1.04–2.27) and painters (1.80; 1.14–2.84). ORs differed significantly among subtypes for hairdressers, textile workers and printing pressmen.

Conclusions This pooled analysis supports a role for farming, textile, and hairdressing related exposures in the development of NHL. Occupations with potential exposure to solvents, metals, wood dust, infectious agents and mineral dust were also positively associated with NHL. For all four studied NHL subtypes occupational risk factors play a role, with notable differences in risk occupations across subtypes.
Objectives To test the association between occupational exposure to trichloroethylene (TCE) and risk of non-Hodgkin lymphoma (NHL), we conducted a pooled analysis of four international case-control studies.

Methods Studies were selected which included state-of-the-art retrospective assessment of occupational exposure to TCE and histological information on lymphoma subtype. Overall, the pooled study population included 3788 NHL cases and 4279 controls. Summary indicators of exposure were harmonised across studies. We conducted unconditional logistic regression analysis to test the association between the harmonised TCE exposure estimates and NHL and its major subtypes, adjusting by age, gender, and study.

Results Among the total study population, risk of follicular lymphoma, but not NHL overall or other subtypes, increased by probability (p = 0.02) and intensity level (p = 0.04) of TCE exposure. When the analysis was restricted to subjects most likely exposed to TCE, risk of NHL overall (p = 0.009), follicular lymphoma (p = 0.04), and chronic lymphocytic leukaemia (CLL) (p = 0.01) showed a linear increase by duration of exposure. No heterogeneity in NHL risk associated with high probability of exposure to TCE (all intensity levels combined) was detected.

Conclusion With due caution because of several limitations, our pooled analysis supports the hypothesis of an increased risk of NHL, and particularly of the follicular lymphoma and CLL subtypes, associated with occupational exposure to TCE.

Objectives Some industrial chemicals and pesticides might have endocrine disrupting effects. While some pesticides and solvents have been associated with an increased risk of lymphoma, whether this would be the result of their potential endocrine disrupting effect has not been investigated as yet. We explored the role of occupational exposure to endocrine disruptors in lymphoma aetiology.

Methods The Epilymph study is a multicenter case-control study carried out in six European countries from 1998 to 2004. We evaluated 2,457 controls and 2,013 lymphoma cases and its subtypes. Information on occupational history was collected through face-to-face interviews. We applied a job-exposure matrix (JEM) for endocrine disrupting chemicals to assess occupational exposures (Brouwers et al. 2009). We evaluated exposure to ten chemical groups: polycyclic aromatic hydrocarbons, polychlorinated organic compounds, pesticides, phthalates, solvents, bisphenol-A, alklyphenolic compounds, brominated flame retardants, metals and a miscellaneous group.

Results Prevalence of ever occupationally exposed among controls ranged from 1% (bisphenol-A) to 48% (solvents). Risks for non-Hodgkin lymphoma (NHL) and chronic lymphocytic leukaemia (CLL) were increased with cumulative exposure to endocrine disruptors among men (OR = 1.20 CI95%:1.04–1.38 and 1.28 CI95%:1.01–1.61, respectively). However, none of the individual chemical groups evaluated was associated with NHL or follicular lymphoma risk. For other subtypes such as CLL, multiple myeloma, Hodgkin lymphoma and T-cell neoplasms risks were increased with several exposures, including metals.