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LYMPHOMA RISK AND OCCUPATIONAL EXPOSURE TO PESTICIDES: RESULTS OF THE EPILYMPH STUDY

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Objectives Several agricultural pesticides have shown a carcinogenic potential in experimental animals.

Methods In 1998–2003, 2337 incident lymphoma cases and 2434 controls participated in the EPILYMPH case-control study in six European countries. A detailed occupational history was collected in cases and controls. Specific questions for farm workers included type of crop, farm size, pests being treated, type and schedule of pesticide use. We conducted a preliminary analysis of risk of lymphoma and its major subtypes associated with occupational exposure to groups of pesticides. The OR and its 95% CI was calculated with unconditional logistic regression for all lymphomas, and its major subtypes, adjusting by age, gender, and education.

Results Lymphoma risk did not increase among those exposed to inorganic (OR = 1.3, 95% CI 0.9 to 1.7) or organic pesticides (OR = 1.1, 95% CI 0.9 to 1.4). Risk of CLL was significantly increased among those exposed to pesticides (OR = 1.5 95% CI 1.0 to 2.2), and particularly to organophosphates (OR = 2.2, 95% CI 1.1 to 4.4). No other significant associations were observed.

Conclusions Our results confirm previous reports of an increase in risk of specific lymphoma subtypes associated with exposure to specific agrochemicals.