IS THERE A DOUBLING OF CANCER RISK IN ANY SUBGROUP OF COMMERCIAL PAINTERS?

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Objectives We conducted a review of the epidemiological literature on cancer risk in commercial painters for the UK Industrial Injuries Advisory Council (IIAC), specifically to advise on whether any sub-groups of painters suffered from a doubling of cancer risk due to their occupation.

Methods We identified 11 relevant cohort studies, together with 21 case-control studies relating to lung cancer risks and 33 case-control studies relating to bladder cancer.

Results Taken at face value the case-control literature suggests that overall cancer risks in painters are elevated by some 40% for bladder cancer and by 25% for lung cancer. Chance and confounding by smoking could be excluded as explanations of these excesses. However, the exclusion of bias usually requires the demonstration in cohort studies of cancer risks varying, at least approximately with exposure, or a surrogate of exposure. Unfortunately, there are limited cohort studies which enable such analysis, but the overall cohort findings do also suggest that painters may well suffer from occupational cancer risks for lung cancer and bladder cancer.

Conclusions It was not possible to identify a group, either by type of painting or by duration of painting that suffers a doubling of cancer risk, which is the threshold of effect for consideration of compensation in the UK. Further work on the identification of the putative carcinogenic agents associated with painting would assist both the regulatory framework and the provision of compensation.