P49 ASSESSING THE TAKE-HOME EXPOSURE ROUTE: DERMAL CONTAMINATION OF WORKERS WITH LABORATORY ANIMAL ALLERGEN

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Objectives Children whose parents were occupationally exposed to laboratory animal allergen (LAA) had increased sensitisation rates, with significantly more positive skin prick tests to allergens from the hair of laboratory animals when compared to the children of non-occupationally exposed parents (Krakowiak *et al* 1999). The aims were to determine whether take-home exposure to LAA occurs via the dermal, clothing and surface contamination and to validate wipe sampling of hands and hard surfaces as a means of detecting contamination with LAA.

Methods This preliminary study involves laboratory recovery efficiency and field testing to determine suitable methods for dermal and surface sampling and subsequent analysis for LAA. The wipe samples were analysed for mouse urinary allergen (mus m1) with ELISA by the Health and Safety Laboratory (HSL), UK.

Results The average percentage recovery of LAA from a single wiping of spiked skin and hard surfaces was found to be >100%. All workplace exposure samples showed the presence of mus m1 contamination on the wipes (≥ 2.29 ng/wipe). Detailed results for take home exposure will be presented at the conference.

Conclusions The results of this pilot work contributed to validating the wipe technique tested in laboratory testing and utilised in the actual work. It is likely to be a useful tool in understanding take-home exposure to LAA, the risk of developing respiratory sensitisation and asthma. It may provide the means of educating and training workers in reducing dermal exposure contamination to identifying interventions to prevent such take-home contamination occurring in workplaces.