P184 SHEEP DIPPING, RELATED TREATMENTS AND "DIPPERS' FLU"

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Objectives Study of acute health effects in farmers following treatment of sheep for ectoparasites.

Methods Prospective cohort study of UK sheep farmers in 2005-6. Data collected before treatment included medical history, a detailed symptom questionnaire, serum butyrylcholinesterase and urine organophosphate & synthetic pyrethroid metabolites. After treatment urine metabolites, serology for infectious agents, clinical haematology & biochemistry were collected.

Results 8747 subjects were randomly selected. 781 (8.9%) participated before treatment (56%, 21% & 22% from Wales, NW & SE England respectively). 156 were studied after treatment. These response rates are unlikely to be bettered in this population. Farmers treated a mean number of 500 sheep over 1½ days. 28% dipped with organophosphates, others used synthetic pyrethroids cyromazine and avermectins. Following treatment farmers exhibited rises in the metabolites of licensed pesticides, but mean levels were similar to those found in non-occupationally exposed populations. There were no significant changes in butyrylcholinesterase activity. There was very low symptom prevalence before and after treatment and little relationship between symptoms and pesticide metabolites. General health status before treatment was the principal factor associated with symptoms at all stages of the study. Farmers reported symptoms commonly found in the general population and these suggested neither pesticide toxicity nor a distinct syndrome. Serology, biochemistry & haematology did not indicate significant pathological effects.

Conclusions In recent decades a putative syndrome "dippers' flu" has been the subject of intense speculation unsupported by evidence. In this study a distinct syndrome was not found. This was unlikely to have been masked by biases and confounders.