

P224 HOW DO THE TIMINGS OF REACTIONS DURING SPECIFIC INHALATION CHALLENGE RELATE TO REAL WORLD EXPOSURES IN OCCUPATIONAL ASTHMA?

VC Moore, PS Burge, AS Robertson, GI Walters. *Birmingham Heartlands Hospital, Birmingham, UK*

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Timings of asthmatic reactions following specific inhalation challenge (SIC) have been defined as immediate, late, dual and prolonged immediate. How they translate into usual workplaces exposure is unknown. We postulated that those with an immediate component would start to react within one hour of regular occupational exposure and start to recover within one hour of leaving work, whereas those with a late reaction would have delayed starting and recovery. Those with dual or prolonged immediate reactions would show early deterioration and delayed recovery. We have compared the timings of reactions in 48 consecutive workers who had positive SIC and had kept serial PEF records at home and with real-world work exposures. These were analysed by the ABC plot from the Oasys analytical program which combines all measurements done on different work days into 2-hourly blocks and produces plots similar to that seen with SIC, with days away from work as the control exposure. Four experts independently scored the ABC plots to identify workplace deterioration starting at the first timepoint after the start of work, or ≥ 2 hours later (delayed deterioration), and starting to recover at the first timepoint after leaving work, or ≥ 2 hours later (delayed recovery). Records with disagreements were resolved in a joint meeting when all records available for an individual worker were compared. The relationship between SIC and real-world exposures is shown in the table. The relationship between laboratory and workplace reactions was only modest, complete concordance in 44%. Exposures may vary from day to day at work, or that the first reading at work was made before significant exposure has occurred; workers are instructed to make the last reading before work immediate before entering the workplace which should mitigate this. For those with immediate reactions alone during SIC, more showed deterioration in the first workplace reading than showed early recovery after leaving work.

Abstract P224 Table 1 Comparison of timing of asthmatic reactions in the challenge chamber and in real world exposures at work

Laboratory challenge reaction	Start of deterioration		Start of recovery	
	Immediate	Delayed	Immediate	Delayed
Immediate (n=19)	13	6	9	10
Late (n=10)	4	6	4	6
Dual or prolonged immediate (n=20)	10	10	8	12

P225 PERSONAL PERCEPTION AND IMPACT OF WORK AGGRAVATED ASTHMA

¹LM Bradshaw, ¹J Sumner, ²J Delic, ¹D Fishwick. ¹Centre for Workplace Health, Buxton, UK; ²Health and Safety Executive, Bootle, UK

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Workers with asthma frequently complain asthma symptoms are worse at work. Work aggravated asthma (WAA) is asthma made worse by but not caused by workplace exposures. Work practices and exposures can affect asthmatics with mild, moderate or severe asthma.

The aim of this study was to explore the personal perception and impact of WAA. A purposive sampling strategy was used to recruit subjects into this study. The sample was selected from a group of participants in a WAA cross sectional postal questionnaire study. For enrichment qualitative data was also used from the postal questionnaire. All subjects had self-reported WAA and were stratified according to asthma severity. Data were analysed using thematic analysis.

Eighty five subjects provided qualitative data from the postal questionnaire, 6 subjects were interviewed with an in depth face to face interview and one subject an in depth telephone interview. No further interviews were conducted when data saturation point was met. Five main themes concerning the workers perception of WAA were identified. These were; the working environment, lack of understanding about asthma, mental health, social impact and financial impact. Workers believed that a variety of triggers within the workplace caused them to have asthma symptoms. High levels of stress impacted on quality of life and job satisfaction. Some workers were willing to leave the workplace or change career because of the emotional impact feeling stressed at work had on their lives. WAA had an impact on social and family life with individuals giving up socialising when they had asthma symptoms. Feelings of guilt for relying on a partner, children and family to care for them were common. The financial burden of buying inhalers, attending appointments and in some cases reducing working hours or changing to less well paid roles had an impact. There was a perception that employers and colleagues had a lack of understanding of asthma, in particular the variable nature of the disease.

Asthma education programmes in workplaces could help employers and workers understand how to deal with a colleague with asthma and alleviate the stress those workers with WAA experience.

P226 WHAT IS THE LIKELIHOOD OF A DIAGNOSIS OF OCCUPATIONAL LUNG DISEASE WHEN REFERRED TO A SPECIALIST TERTIARY CLINIC?

JL Hoyle, K Balance. *North Manchester General Hospital, Manchester, UK*

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Background The ratio of patients attending specialist occupational lung disease services who are confirmed to have an occupational lung disease is unknown.

Aim To determine the likelihood of occupational asthma or work related lung disease as a new referral in a specialist tertiary clinic.

Methods Patients seen in a tertiary clinic Jan 2016 to Dec 2016 were identified and case notes examined retrospectively for final diagnosis.

Results 481 patient attendances were identified of which 102 were new referrals. 41 of 102 (40%) were referred as possible work related interstitial lung disease or asbestos related lung disease. 13/41 (31.7%) were diagnosed asbestosis, 10 (24%) diffuse pleural thickening, 5 (12%) pleural plaques, 6 (14.6%) Usual Interstitial Pneumonia (UIP) with asbestos exposure, 3