Abstracts

The following are selected abstracts of papers presented at the Annual Scientific Meeting held in Plymouth, UK in June. For further details please contact the authors directly.

A1 Evidence Based Practice — mirage or reality for occupational health
T. Carter

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The use of the techniques of evidence based medicine to test and improve practice is becoming the norm in many specialities and its methods are playing a major part in determining resource allocation in the NHS.

How good is the evidence underlying current occupational health practice? Can the methods developed elsewhere be used to improve our practice? How can busy practitioners benefit from evidence based approaches? Can we afford to ignore evidence based approaches if we wish to be seen as acceptable providers of occupational health advice?

These and other questions will be addressed using examples of evidence based methods and their application to health problems in occupational health and health care planning.

The scope for developing a better evidence base for occupational health will be reviewed.

A2 Effective Sickness Absence Management
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Objective To review the topic of sickness absence as a socio-economic phenomenon, utilising a model of individual sickness absence behaviour which follows the transition from the healthy individual to one who assumes the sick role. The factors are considered which influence this transition and the return to health or other outcome following sickness absence. An integrated team approach to managing sickness absence is developed, involving health professionals, line managers and the human resources function.

Methods The current literature was reviewed considering information on the cost and economic importance of sickness absence, its measurement, key variables and causes. The review builds on the experience of measurement and control of sickness absence developed in the UK Post Office during the last three decades. A model of individual sickness absence behaviour developed in The Netherlands was reviewed and used to consider the interaction of factors influencing sickness absence. A discussion of the means of reducing and controlling sickness absence in the light of this knowledge developed a framework for sickness absence policies.

Outputs
- Key features of a sickness absence policy
- Key questions to be addressed in managing an individual case
- A model of individual sickness absence

A3 An audit of General Practitioner Letters related to Sickness Absence
A. J. Emslie

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Referrals to the occupational health department related to sickness absence constitute a significant part of the workload of the department. Where employees are distant from the department geographically, and therefore cannot be seen in person by the occupational physician, it has become custom and practice to answer questions on fitness for work by review of information obtained via a medical report written by the employee's own doctor. This study was carried out to audit this activity. One hundred and fifteen reports from general practitioners were reviewed by the author (Dr Alasdair Emslie) to determine if they met the aspirations as described. The study population was predominantly bus drivers (83%).

The audit showed that managers took on average 37.6 days to refer cases of long term sickness absence to the occupational health department. Reports from general practitioners took an average of 20.9 days between request and receipt.

The reports were adequate in giving advice regarding the nature of the illness causing the absence from work, its treatment, and providing details of specialist advice where this had been sought.

The employment implications of the illnesses were inadequately addressed by most reports, with particular reference to estimating the date of return to work by the employee and the likely ability to render regular and satisfactory performance and attendance at work in the future together with future restrictions on employment and fitness to hold a class 2 vocational licence (Passenger Carrying Vehicle Licence).

In 21% of cases, serious safety critical problems were defined by the author which had been missed or overlooked by the treating general practitioner. This thesis
confirms that the current practice of requesting reports from general practitioners in pursuance of advice regarding fitness for work is substantially flawed.

Recommendations following this audit are as follows:

- Retention of the format of requesting detailed information for general practitioners regarding the nature of the residual condition accounting for the absence of the employee together with treatment details and results of any specialist investigations.
- A request that general practitioners submitting such a report will also record aspects of the functional ability or disability of the employee in relation to their sickness according to a specifically designed template of function which will accompany the report (Appendix 6).
- This will enable occupational physicians to review the information given in the new format more accurately and advise employers of the fitness to return to work or not of absent employees.

A further audit on this new tool is recommended to compare its efficacy to that of the current format of questions asked of treating general practitioners.

A4 Respiratory Symptoms and Lung Function in Two Aluminium Pre-bake Smelters
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Background There have been reports of 'potroom asthma' and increased respiratory symptoms associated with work in aluminium smelters.

Aims To investigate the prevalence of respiratory symptoms and lung function at two Australian aluminium pre-bake smelters.

Methods Workers were invited to participate in a cross-sectional survey comprising respiratory symptom questionnaire, skin prick tests, and lung function testing. Workers with different exposure histories were compared to estimate the effect of work on respiratory morbidity.

Results There were 1529 male participants (89.6% participation). After adjusting for age and smoking, most work related respiratory symptoms were reported significantly more often by the ingot mill, anode, and potroom workers in one smelter. In the other smelter ingot mill workers were more likely to report work related wheeze and potroom workers work related rhinitis. After adjusting for age, height, and smoking there were no significant differences between groups in FEV1 or FVC.

Conclusions Work related respiratory symptoms occurred among a broad range of workers varying exposures. The lack of differences in lung function suggests either that effects on respiratory morbidity were relatively minor or may indicate some selection bias in recruitment.

A5 Review of deaths among Peninsular Malaysian Fishermen 1990–1994
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The National Registration Department, Malaysia has a computerised data base consisting of data from death certificates issued in Malaysia. This data base was accessed to compile information on death of Peninsular Malaysian fishermen from 1990 to 1994 inclusive. The search process extracted all relevant death certificates with the word 'fishermen' or equivalent and the data was validated by checking with hard copy records. A total number of 1649 death certificates were retrieved and the total number of fishermen by year and by states were provided by the Fishery Department. The mean age of death for the fishermen was 53.6 ± 16.9 (SD) years, ranged from 15 to 96 years. The majority of the deaths (99.6%) were in males, reflecting the predominance of males in the Malaysian fishing industry (99% males). Only 18.2% of the deaths were registered by a hospital, of which 7.2% could be coded according to the ICD-9 classification. The rest were certified by police and other authorised personnel. The three commonest causes of death were drowning, motor vehicle accidents and septicaemia. Over the 5 year period, mortality rate rose from 4.4 to 7.0 per 1,000. The highest increase was observed among the Indians (11.2 to 32.1 per 1,000) followed by Malays (5.2 to 9.9 per 1,000) and Chinese (3.2 to 4.6 per 1,000). The state of Perls recorded the lowest mortality rate of 2.2 per 1,000 fishermen while the state of Pulau Pinang had the highest rate of 13.5 per 1,000. There appeared to be no significant pattern in the number of deaths by month. Recommendations have been made to improve death registration, coding and validation of occupation.

A6 Respiratory ill health and food ingredient dust exposure
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Introduction Asthma in the baking industry has been recognised for many years. The term 'Baker's Asthma' has become synonymous with allergy to flour. The work contained in the paper challenges some of the conventional views of asthma in flour-using industries.

Aims The study aims to establish the prevalence of work-related symptoms and the risk of symptomatic sensitisation in various sectors of the flour-using industry.

Methods Two separate pieces of work are considered:

1. The findings of a group-wide health surveillance programme within RHM between 1993 and 1998.
2. Cross-sectional surveys, involving structured interviews and skin prick testing, of three specific exposure groups in flour milling, bread baking and cake baking.

Results Bread baking had higher risk of sensitisation than other industry sectors where flour is manufactured
or used, with an incidence of new cases of symptomatic sensitisation of 2020 per million employees per year. Eighty-eight percent of cases of symptomatic sensitisation of 2020 per million employees per year. The agent responsible in half of all cases was grain dust.

Across all flour-using sectors there was a relatively high prevalence of transient non-specific irritant symptoms (13–22%) which seemed to relate to short term high dust levels.

Discussion The findings raise the question as to whether asthma in bakers and other flour-exposed personnel may have two separate mechanisms. In the majority of those with symptoms it is probably a non-specific respiratory consequence of high total inhalable dust levels. In a small number of individuals it is the result of symptomatic allergy to ingredients, of which fungal amylase is the most potent.

A7 Occupational health services in the NHS — are we protecting patients and staff? J. Harrison,* J. Woodhouse† and A. Dowson‡

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Objective Assessment of progress with the implementation of Health Service Guidelines 'Occupational Health Services for NHS staff' [HSG(94)51].

Design A combined internal and external audit. The visiting nurse interviewed key managers in the Trusts, verified the existence of policies and training programmes and confirmed the security of occupational health records.

Setting 51 acute and community NHS Trusts in the Northern and Yorkshire region.

Main Outcome measures Scores for health and safety legislation, pre-employment assessments, control of infection, health surveillance, sickness absence, ill-health retirement, health promotion and occupational health records.

Results 36 Trusts participated (71%). The overall performance of the Trusts was variable. The highest score was 96% maximum score and the lowest score was 63% maximum score. There were significant deficiencies in performance in some Trusts in the areas of health and safety, pre-employment assessments, control of infection and health surveillance.

Conclusion The NHS is often failing to take reasonable measures to protect and promote the health of its employees. The lack of a pro-active risk-based assessment of the working environment may mean that the wellbeing of both staff and patients is being threatened unnecessarily.

A8 Environmental monitoring of nitrous oxide in operating theatres

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Static and personal sampling of nitrous oxide in operating theatres was carried out, to assess compliance with the COSHH Regulations.

Results showed that compliance was achievable in theatre areas. The highest peak level was in the anaesthetic room 493ppm (14–2000ppm), with the highest grand mean levels in the theatre 64ppm (1–467ppm). Personal sampling of the anaesthetist showed the highest levels were in the anaesthetic room 44ppm (0–126ppm). Levels were higher during paediatric and dental procedures.

Non theatre areas were also monitored. Inadequate ventilation and limited anaesthetic gas scavenging resulted in levels exceeding the limits over the time monitored. The highest peak level was in the delivery suite at 1500ppm, with the highest grand mean levels in the CT scanner at 787ppm.

The research highlighted the influence that working procedures have on the pollution from waste anaesthetic agents and, the need for greater awareness of anaesthetic agents.

A9 Changing patterns of occupational health practice in the NHS — challenges and opportunities for the future

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This paper analyses the diagnostic categories of cases referred to an NHS Occupational Health Service over a period of five years (1992–1998).

It describes how the Information and Technology (IT) system currently in use demonstrates a changing pattern of the types of cases referred. The percentage of musculoskeletal conditions has fallen while the percentage of psychiatric cases has increased. This has enabled both manpower and resource planning to meet the need for the delivery of a quality occupational health service.

The IT system has also enabled the development of performance indicators which has led to the Occupational Health Service being more accountable to customers.

The paper concludes with an audit, based on the OPRA reporting system of occupationally related diseases seen over a period of one year (1997–1998).

A10 Surveillance of occupational exposure to blood borne viruses in healthcare workers

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Surveillance of occupational exposure to blood borne viruses has been ongoing since 1984. In 1997 a more
active surveillance was set up with funding from the Health and Safety Executive.

Between July 1997 and June 1999 CDSC received 447 voluntary reports from approximately 200 hospitals in England, Wales and Northern Ireland, mainly through their occupational health departments. A majority (418 reports) were exposures to a single virus (163 to HIV, 198 to HCV, 57 to HBV). Percutaneous injuries accounted for 74% of the exposures.

Over 70% of those exposed to HTV (97 HCWs) were commenced on PEP. Thirty of them completed the course of all drugs prescribed. Gastrointestinal complaint was the most frequently reported side effect.

The enhanced surveillance system contributes to give valuable insights into BBV exposure in healthcare workers. CDSC will continue to liaise with colleagues in occupational health departments and their contribution is gratefully acknowledged.

REFERENCES