



# NEWSLETTER

*Royal College of Physicians of Ireland*

Volume 6, Issue 3

July 2008

## Malaysian Conference 23rd – 25th May 2008

Surely the highlight of the year! The international conference held in Kuala Lumpur in May, celebrating 14 years involvement by the Faculty in Malaysia, was a resounding success with over 100 delegates attending and a range of associated social events and a worksite visit to a palm oil plantation.



The conference was organised in conjunction with our partners, the Irish Society of Occupational Medicine who were represented by their President, Dr Dermot Halpin. The College was represented by Dr Michael Molloy, Vice President. The Irish Ambassador, His Excellency Mr Eugene Hutchinson, also supported the event by hosting a reception in the Irish Ambassador's residence.

The educational programme stretching over a day and a half was both interesting and diverse. The quality of the presentations was highly complimented by all delegates. The conference concluded with a presentation from Professor Bill Glass entitled "50 years of Occupational Health Practice". Following this, and a standing ovation from the audience, Bill was presented with a Framed Faculty scroll to mark the occasion and

celebrate a remarkable man who has had an exemplary career in occupational medicine. In the planning stages we had high hopes of being able to hold an occupational health conference that would be of high quality and attractive to delegates from the region and beyond – and I can confirm that these hopes were more than realised and our expectations exceeded. I pay tribute to Dr Krishnan and his colleagues in the Malaysian Committee for all their hard work which made the event such a success. Our own Faculty Administrator, Anne McMonagle, alongside Vicky Sivaratnam, played a key role in ensuring that the organisation of the conference and conferring ceremony was flawless. I would also like to thank Dato Dr Singham and Datuk Dr Jeyaindran for their help with the clinical examinations held in Hospital Kuala Lumpur in the week leading up to the conference. Congratulations again to the organisers, speakers, sponsors, and delegates for ensuring this event was a marvellous success.



**Datuk Dr S Subramaniam Sathasivam, the Honourable Minister of Human Resources, Government of Malaysia, receiving an Honorary Fellowship from the Dean**

The three men at the forefront of the foundation of the Faculty in 1976 (Dr Jack Eustace, Dr James Smiley and Dr Leo McElearney) could not have foreseen that the Faculty would have a presence in

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FACULTY OF OCCUPATIONAL MEDICINE NEWSLETTER  
Royal College of Physicians of Ireland

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Malaysia in 2008 – hosting examinations and holding a major international conference – or maybe, they would not have been so surprised, given their own innovation and vision. They would certainly have been, as we were, very proud.

I know they would also have approved of the involvement of the Irish Society of Occupational Medicine, given the important role the Society has played over many years in developing occupational medicine in Ireland – I personally thank Dr Dermot Halpin and his colleagues for their support and co-operation in the organisation of the conference and in the broader role of advocating for the health and wellbeing of the working age population in Ireland.

As for our Malaysian experience, we can look back with pride on 14 years of co-operation in the field of postgraduate studies, examinations in Occupational Medicine and now the hosting of international conferences! The Faculty has been privileged to be part of this successful partnership with our colleagues in Malaysia.

The initiative developed from the groundwork of the Deans of that time, Dr David Courtney and Dr Christopher Dick, and the key contacts in Malaysia, who included Datuk Dr Krishnan, Prof Rampal, Prof Glass and Dr O'Holohan. We have also enjoyed the support of the Irish Ambassador in Kuala Lumpur during that time and we are most grateful for that.

Throughout this period, many doctors from the region, well over 180, have become members of the Faculty, representing the largest single grouping outside Ireland. The Malaysian Committee of the Faculty plays a key role in maintaining and developing the practice and science of occupational medicine in Malaysia and beyond.

We are of course always looking to see how we can improve things for our members both at home and abroad and there is no doubt that the innovations in postgraduate education being introduced in the College will, I am sure, enhance both the communication and the developmental experience for those affiliated to our Faculty.

So with our relationship with Malaysia in its 14th year, both the Faculty and the Royal College of

Physicians of Ireland look forward to many more years of going from strength to strength. We affirm our commitment to those principles that the founders of Faculty held so dearly - developing and maintaining high standards of training, competence and professional integrity in occupational medicine and promoting the science and practice of the specialty both at home and abroad. All of this to promote and maintain the health of all those at work and the working age population.

Where do we go to from here? Well, following on from the success of the conference, the possibility of holding an international conference every two years - rotating the venue between Malaysia, New Zealand and the United Arab Emirates - has been proposed. So watch this space!



Finally, I couldn't end this recollection without making reference to the conferring & conference dinner where those attending were serenaded in a memorable performance by Tom Jones of Malaysia! Following which, and to crown it all, Munster won the European Rugby Cup!!

**Dr Ken Addley**  
Dean

**Admission Ceremony**  
**Kuala Lumpur**  
**May 2008**

**Honorary Fellowship:-**

Dr Subramaniam KVS Sathasivam MRCPI

**Fellowship (ad eundem):-**

Dr. Saleh Al Mesaabi

Dr. Mark Newson-Smith

**Membership:-**

Lew Hong Chau  
M M Sree Ganesh  
Peh Kaik Boon  
Sugumar Samogam  
Sujatha Saravanan  
Syed zaffarullah Hussaini  
Teow King Fok  
Vikneswaran Tharumalingam (from 2007)  
Zarqa S Taimur

**Licentiate ship:-**

Chew Chee Keong  
Sim Sharon  
Vivekanandan Nallathambi



**21<sup>st</sup> Smiley Lecture**

The 21<sup>st</sup> Annual Smiley Lecture will be delivered by Professor Cary Cooper on Friday 21<sup>st</sup> November – don't miss it!

**DVD of the 20<sup>th</sup> Smiley Lecture**

A record of Professor Bob Goldberg's lecture, delivered in November 2007, is available in DVD format. A copy of the DVD can be obtained by writing to the Faculty Office. 1 CME point will be credited for completing a short MCQ paper which will be included.

Please indicate clearly the address for return and include a cheque or bank draft for €25 (payable to "Faculty of Occupational Medicine").

**Autumn Faculty Meeting in Dublin**

The 2008 Autumn Scientific Meeting will be held in the Royal College of Physicians of Ireland No.6 Kildare Street, on Friday 3rd October.

The title of this year's meeting is "***Mens Sana in Corpore Sano***" - Does 'Mind' Matter in Occupational Health Practice? Medically unexplained symptoms, somatisation and chronic fatigue are specific topics that will be included.

Registration forms will be available shortly on the website or from fom@rcpi.ie

**Fifteen-Year Trends In Occupational Asthma:  
Data From The  
Shield Surveillance Scheme**

Bailey et al provide a useful and illuminating picture of occupational asthma in the West Midlands in this review which considers the 1461 cases reported to the 'Shield' Surveillance Scheme for the period 1991-2005. The annual incidence was 42/million cases.

The findings confirm isocyanates as the commonest cause of occupational asthma and describe their use in spray painting, adhesives and foam manufacture. Metal working fluids as a cause of asthma are identified as a risk which emerged in 2003 and 2004 and the article usefully references the report of the outbreak. The circumstances in which both cobalt and chrome caused occupational asthma are covered in detail.

The report provides useful information on the falling incidence of asthma caused by gluteraldehyde and latex amongst health care workers and evidences asthma attributable to latex in users of powdered latex gloves in prisons and garages.

Nurses and other health care professionals and welders emerged as the occupational groupings with the highest rates. Serial peak flow measurements were conducted in 66% of cases and non specific challenge testing and specific IgE measurement in 55% and 48% respectively.

The review concludes with comparisons of the incidence in the West Midlands with those in France and Finland. Reasons for the relatively low numbers of cases caused by flour, pharmaceuticals and animals are put forward. The concluding sentence affirms the benefits of surveillance.

*W D Bailey et al. Occupational Medicine 2008; 58: 169-174*

### **Abstracts April 2008**

#### **Mesothelioma Mortality In Men: Trends During 1977–2001 And Projections For 2002–2016 In Spain**

A study to evaluate mesothelioma death trends in Spain and to predict the number of future cases of mesothelioma has been published. After descriptive analysis of mesothelioma mortality data, an age-period-cohort model was applied to estimate future mesothelioma deaths. From 1977 to 2001, 1928 men over 35 years of age died of mesothelioma in Spain. Projections indicate that 1321 men are expected to die from mesothelioma between 2007 and 2016. It is expected that mesothelioma deaths will increase at least until 2016. Available data do not allow prediction of the year when mortality will start to decrease.

*S Pitarque et al. Occupational and Environmental Medicine 2008;65:279-282*

#### **Organic Solvent Exposure And Hearing Loss In A Cohort Of Aluminium Workers**

Organic solvent exposure has been shown to cause hearing loss in animals and humans. Less is known about the risk of hearing loss due to solvent exposures typically found in US industry. The authors performed a retrospective cohort study to examine the relationship between solvent exposure and hearing loss in US aluminium industry workers. A cohort of 1319 workers aged 35 years or less at

inception was followed for 5 years. Linkage of employment, industrial hygiene and audiometric surveillance records allowed for estimation of noise and solvent exposures and hearing loss rates over the study period. Study subjects were classified as "solvent exposed" or not, on the basis of industrial hygiene records linked with individual job histories. High frequency hearing loss was modelled as both a continuous and a dichotomous outcome. Typical solvent exposures involved mixtures of xylene, toluene and/or methyl ethyl ketone (MEK). Recorded solvent exposure levels varied widely both within and between jobs. In a multivariate logistic model, risk factors for high frequency hearing loss included age (OR = 1.06,  $p = 0.004$ ), hunting or shooting (OR = 1.35,  $p = 0.049$ ), noisy hobbies (OR = 1.74,  $p = 0.01$ ), baseline hearing level (OR = 1.04,  $p < 0.001$ ) and solvent exposure (OR = 1.87,  $p = 0.004$ ). A multivariate linear regression analysis similarly found significant associations between high frequency hearing loss and age ( $p < 0.001$ ), hunting or shooting ( $p < 0.001$ ), noisy hobbies ( $p = 0.03$ ), solvent exposure ( $p < 0.001$ ) and baseline hearing ( $p = 0.03$ ). These results suggest that occupational exposure to organic solvent mixtures is a risk factor for high frequency hearing loss, although the data do not allow conclusions about dose-response relationships. Industries with solvent-exposed workers should include such workers in hearing conservation programs.

*P M Rabinowitz et al. Occupational and Environmental Medicine 2008;65:230-235*

#### **3-Hydroxybenzo[A]Pyrene In The Urine Of Workers With Occupational Exposure To Polycyclic Aromatic Hydrocarbons In Different Industries**

This German study was conducted to assess external and internal exposure of workers to polycyclic aromatic hydrocarbons (PAHs). In this context, the analytical and diagnostic reliability of 3-hydroxybenzo[a]pyrene (3OH-BaP) as a biomarker of internal exposure to PAHs was

## **Abstracts May 2008**

### **Fatigue And Health In A Seafaring Population**

established. Ambient and biological monitoring was carried out for 225 PAH-exposed employees of different industries. External exposure was determined by personal air sampling and analysis of 16 EPA-PAH. Internal exposure was examined by the urinary metabolites 3OH-BaP, 1-hydroxypyrene (OH-Pyr) and monohydroxylated phenanthrenes (OH-Phens). Benzo[a]pyrene (BaP) was detected at all workplaces. Concentrations in the breathing zone of the workers ranged from below the limit of detection up to 44.3 µg/m<sup>3</sup>. In biological monitoring, urinary 3OH-BaP was found in median concentrations of 0.8 ng/g creatinine (crea) and the 95th percentile of 6.7 ng/g crea. The results ranged from the limit of detection up to 19.5 ng/g crea. Only 1% of the analysed samples showed concentrations below the limit of detection (0.05 ng/l). Regarding median concentrations, workers in coking plants showed lower 3OH-BaP concentrations (0.5 ng/g crea) than those employed in the production of fireproof material in refractories (1.1 ng/g crea), converter infeed (1.2 ng/g crea) and graphite electrode production (1.3 ng/g crea). Strong correlations of 3OH-BaP with OH-Pyr and the sum of OH-Phens were found for the workplaces converter infeed, coking plants and graphite electrode production (rPearson ranging from 0.618 to 0.867, p<0.001). The poor correlation of BaP in the air and 3OH-BaP in urine is most probably caused by routes of uptake other than via air—for example, dermal uptake. 3OH-BaP as a metabolite of the carcinogenic BaP could be shown to be a diagnostically specific and sensitive biomarker for determining the internal exposure of workers in different industries. Using this method, the estimation of health risks for workers can be fundamentally improved, because the 3OH-BaP represents the group of carcinogenic PAHs. The procedure for analysing 3OH-BaP is complex, but it is robust and produces reliable results.

*J Angerer et al. Occupational and Environmental Medicine 2008;65:224-229*

Occupational fatigue is relatively common within the general population and has been linked to reduced performance, injury and longer term ill-health. Despite growing acknowledgement of this problem in the maritime sector, little research has been conducted into the risk factors, prevalence and consequences of seafarers' fatigue. A Cardiff study aimed to examine the prevalence of fatigue among seafarers, identify potential risk factors and assess possible links with poor performance and ill-health with a cross-sectional questionnaire survey of seafarers working in the offshore oil support, short-sea and deep-sea shipping industries. In all, 1855 questionnaires were completed giving an overall response rate of 20%. Fatigue symptoms were associated with a range of occupational and environmental factors, many unique to seafaring. Reporting a greater number of risk factors was associated with greater fatigue [e.g. OR = 2.53 (1.90–3.35) for those with three or four risk factors and OR = 9.54 (6.95–13.09) for those with five or more risk factors]. There was also a strong link between fatigue and poorer cognitive and health outcomes, with fatigue the most important of a number of risk factors, accounting for 10–14% of the variance.

Seafarers' fatigue could impact on safety within the industry and may be linked to longer term individual ill-health. The authors suggest that it can only be addressed by considering how multiple factors combine to contribute to fatigue.

*Emma J. K. et al. Occupational Medicine 2008  
58(3):198-204*

### **High Risk Occupations For Non-Hodgkin's Lymphoma In New Zealand: Case-Control Study**

Previous studies into occupational risk factors for non-Hodgkin's lymphoma (NHL) in New Zealand have indicated that farmers and meat workers are

at increased risk for these neoplasms. A new nationwide case-control study was conducted to assess whether previously observed associations persist and to identify other occupations that may contribute to the risk of NHL in the New Zealand population. A total of 291 incident cases of NHL (age 25–70 years) notified to the New Zealand Cancer Registry during 2003 and 2004, and 471 population controls, were interviewed face-to-face. The questionnaire collected demographic information and a full occupational history. The relative risk for NHL associated with ever being employed in particular occupations and industries was calculated by unconditional logistic regression adjusting for age, sex, smoking, ethnicity and socioeconomic status. Estimates were subsequently semi-Bayes adjusted to account for the large number of occupations and industries being considered. An elevated NHL risk was observed for field crop and vegetable growers (OR 2.74, 95% CI 1.04 to 7.25) and horticulture and fruit growing (OR 2.28, 95% CI 1.37 to 3.79), particularly for women (OR 3.44, 95% CI 0.62 to 18.9; OR 3.15, 95% CI 1.50 to 6.61). Sheep and dairy farming was not associated with an increased risk of NHL. Meat processors had an elevated risk (OR 1.97, 95% CI 0.97 to 3.97), as did heavy truck drivers (OR 1.98, 95% CI 0.92 to 4.24), workers employed in metal product manufacturing (OR 1.92, 95% CI 1.12 to 3.28) and cleaners (OR 2.11, 95% CI 1.21 to 3.65). After semi-Bayes adjustment the elevated risks for horticulture and fruit growing, metal product manufacturing and cleaners remained statistically significant, representing the most robust findings of this study. This study has confirmed that crop farmers and meat workers remain high risk occupations for NHL in New Zealand, and has identified several other occupations and industries of high NHL risk that merit further study.

*A 't Mannetje et al. Occupational and Environmental Medicine 2008;65:354-363*

### **Cold Haemagglutinin Disease Misdiagnosed As Hand-Arm Vibration Syndrome**

A patient with a diagnosis of hand-arm vibration syndrome was referred for a second opinion. He worked as a multi-skilled operative in the housing department of a local authority, a job not normally

associated with high levels of exposure to hand-transmitted vibration (>2.5 m/s<sup>2</sup> A(8)). He described blanching of his fingers and a blue discolouration of his extremities in cold weather. On examination, his fingertips, toes and pinnae were acrocyanotic, the fingers were patchily pale and sensation was subjectively impaired in all of the digits. Investigations revealed a haemolytic anaemia and haemagglutination. He was diagnosed with idiopathic cold haemagglutinin disease. Exposure to vibration may confound with exposure to cold in which case the differential diagnoses of cold haemagglutinin disease or cryoglobulinaemia should be excluded before diagnosing hand-arm vibration syndrome.

*C. J. M. Poole Occupational Medicine 2008  
58(3):219-221*

### **Abstracts June 2008**

#### **Managing Low Back Pain: Knowledge And Attitudes Of Hospital Managers**

Low back pain (LBP) is a major cause of work-related disability. Despite an increasing emphasis on the role of employers and workplace managers in reducing work disability, little research has been conducted in this area. A Dublin study aimed to identify hospital line managers' knowledge, attitudes and beliefs regarding LBP and its management; the difficulties encountered in managing the worker with LBP and the organizational needs in relation to managing LBP at work. A cross-sectional survey of line managers (n = 92) at an Irish University Hospital using a self-administered questionnaire was carried out. A 64% (n = 59) response rate was achieved. Contrary to current evidence, 54% (n = 32) of respondent managers reported that a staff member needs to be pain free prior to return to work (RTW). Managers reported difficulties in dealing with colleagues of workers with LBP and in knowing the work capacity of the worker with LBP. Managers demonstrated poor awareness of the importance of the manager-worker relationship in influencing RTW. Managers believed more information, easier access to health services, more ergonomic training and better staff resources were necessary supports in facilitating the management of workers with LBP.

The authors concluded that hospital line managers' knowledge of the evidence regarding their role in LBP management needs to be improved. Managers believed better information, improved staff resources and easier access to health and ergonomic services would facilitate their management of workers with LBP.

*C Cunningham et al. Occupational Medicine 2008  
58(4):282-288*

### **Exposures And Reported Symptoms Associated With Occupational Deployment To The Buncefield Fuel Depot Fire, England 2005**

An explosion at the Buncefield fuel depot outside London occurred on 11 December 2005. A retrospective cohort study of airborne exposures and health status for workers deployed was conducted. Deployed individuals were identified through their occupational health departments and sent a self-completion questionnaire asking about health symptoms during the burn and post-burn phases. The prevalence of health symptoms in workers was compared to symptoms in local residents not under the smoke plume. Of 1949 eligible individuals, 815 returned questionnaires (response rate 44%). Respiratory protection was used by 39%. Symptoms were reported by 41% of individuals during the burn phase compared with 26% in the post-burn phase. In a final multivariable model, reporting of any symptoms was associated with deployment inside the inner fire cordon during the burn phase (OR 2.07, 95% CI 1.24 to 3.47) and wearing a face mask (OR 2.33, 95% CI 1.67 to 3.26). Compared with the general public, eye irritation (prevalence ratio (PR) 2.1, 95% CI 1.5 to 3.0), coughing (PR 1.3, 95% CI 1.0 to 1.8) and headaches (PR 1.7, 95% CI 1.2 to 2.5) were more common in workers deployed during the burn phase but not the post-burn phase. Increased reporting of symptoms close to the fire during the burn phase was consistent with increased exposure to products of combustion, although no major acute illness was reported. That only a minority of individuals used face masks, which were not protective for symptoms, raises questions about the availability of adequate respiratory protection for such incidents.

*O Morgan et al. Occupational and Environmental  
Medicine 2008;65:404-411*

### **Arterial Structure And Function And Environmental Exposure To Cadmium**

Few studies have addressed the effect of cadmium toxicity on arterial properties. A Belgian study has investigated the possible association of 24 h urinary cadmium excretion (an index of lifetime exposure) with measures of arterial function in a randomly selected population sample (n = 557) from two rural areas with low and high environmental exposure to cadmium. 24 h urinary cadmium excretion was significantly higher in the high compared with the low exposure group (p<0.001). Even though systolic (p = 0.42), diastolic (p = 0.14) and mean arterial pressure (p = 0.68) did not differ between the high and low exposure groups, aortic pulse wave velocity (p = 0.008), brachial pulse pressure (p = 0.026) and femoral pulse pressure (p = 0.008) were significantly lower in the high exposure group. Additionally, femoral distensibility (p<0.001) and compliance (p = 0.001) were significantly higher with high exposure. Across quartiles of 24 h urinary cadmium excretion (adjusted for sex and age), brachial (p for trend = 0.015) and femoral (p for trend = 0.018) pulse pressure significantly decreased and femoral distensibility (p for trend = 0.008) and compliance (p for trend = 0.007) significantly increased with higher cadmium excretion. After full adjustment, the partial regression coefficients confirmed these associations. Pulse wave velocity ( $\beta = -0.79 \pm 0.27$ ; p = 0.004) and carotid ( $\beta = -4.20 \pm 1.51$ ; p = 0.006), brachial ( $\beta = -5.43 \pm 1.41$ ; p = 0.001) and femoral ( $\beta = -4.72 \pm 1.74$ ; p = 0.007) pulse pressures correlated negatively, whereas femoral compliance ( $\beta = 0.11 \pm 0.05$ ; p = 0.016) and distensibility ( $\beta = 1.70 \pm 0.70$ ; p = 0.014) correlated positively with cadmium excretion.

Increased cadmium body burden is associated with lower aortic pulse wave velocity, lower pulse pressure throughout the arterial system, and higher femoral distensibility.

*R Schutte et al. Occupational and Environmental  
Medicine 2008;65:412-419*

## **FACULTY DATES FOR YOUR DIARY**

### **2008**

Autumn Scientific – Friday 3 October  
AGM, Smiley Lecture, Admission Ceremony  
and Annual Dinner - Friday 21 November

### **2009**

Spring Conference - Friday 24 April  
Autumn Scientific - Friday 2nd October  
AGM, Smiley Lecture, Admission Ceremony  
and Annual Dinner - Friday 20 November

### **2010**

Spring Conference - Friday 9 April  
Autumn Scientific - Friday 1 October  
AGM, Smiley Lecture, Admission Ceremony  
and Annual Dinner - Friday 19 November

Since January 2007, the newsletter has been produced in electronic format only.

If you have not already submitted your current e-mail address to the Faculty, kindly do so by e-mailing [fom@rcpi.ie](mailto:fom@rcpi.ie)

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