MANCHESTER 1824
The University of Manchester

THOR

The Health and Occupation Research network

(Incorporating specialists' and THOR-GP reports)

http://www.population-health.manchester.ac.uk/epidemiology/COEH/research/thor/
Or
http://www.coeh.man.ac.uk/thor

Dear colleague,

Thanks to your continuing contribution, the scientific output of THOR goes from strength to strength. So far this year alone we have published no less than 15 peer-reviewed papers based on THOR. Accessing the HSE website and searching for 'THOR' reveals hundreds of web pages based on THOR data.

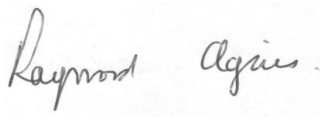
In spite of these successes, the thorny issue of further funding has recurred. Our success in the last full tendering exercise resulted in a contract that allowed for an extension of funding for a limited period without the need for retendering. By all metrics we have done well, resulting in our output being recognised as 'National Statistics'. We were pleased therefore that HSE was happy to extend our contract for three years without retendering.

Unfortunately HSE advised us that because of DWP financial constraints the funding currently on offer is significantly lower than that awarded previously and may not be sufficient to meet all our costs. Nevertheless we are working hard with our counterparts in HSE to at least patch a compromise that will continue funding for data collection in 2016.

You have a very important part to play in this. We ask you to continue to actively participate and report with the same zeal and commitment as ever. Thus we will continue to offer a high quality product that the HSE and others will be keen to support. Indeed some of the THOR research we have been publishing, such as on the 'fit-note', is relevant to the DWP agenda. Moreover some of you may be approached by us and invited to participate in THOR in a different way as our research agenda evolves to meet new challenges as well as to seek further funding.

My colleagues and I remain at your disposal for any THOR data queries you may have.

Best wishes



Raymond Agius
Professor of Occupational and Environmental Medicine

This THOR and THOR-GP combined quarterly report summarises all the cases reported this quarter (April to June 2015).

If you have any comments regarding the type of information you would like to see included (or not) in future reports, or suggestions as to how we could improve the reports then please contact THOR's Manager, Dr Melanie Carder at melanie.carder@manchester.ac.uk or phone 0161 275 5636. We look forward to hearing from you.

CASE REPORTS: April to June 2015

Over 1000 physicians currently participate in THOR / THOR-GP (as of June 2015). Physicians can report either on a core (reporting each month) or a sample (reporting for one randomly selected month each year) basis. A total of 366 actual, 1950 (estimated) cases were reported during this period, with estimated cases being those reported by sample reporters multiplied by 12 and added to the core cases.

The actual and estimated cases by major category and diagnostic group, for clinical specialists (chest physicians, dermatologists), occupational physicians (OPs) and general practitioners (GPs) are shown in Table 1 (NB. only actual cases are provided for THOR-GP; since methods for calculating estimated totals based on GP reports are being developed and evaluated.)

Table 1 Actual and estimated cases by major category and diagnostic group, April to June 2015

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	13	24	*6*	0	0	*0*	0	*0*
	ascribed to sensitisation	*12*	*23*	-	-	-	-	-	-
	ascribed to irritation/RADS	*1*	*1*	-	-	-	-	-	-
	Unspecified	-	-	-	-	-	-	-	-
	Inhalation accidents	1	1	*<1*	0	0	*0*	0	*0*
	Allergic alveolitis	1	1	*<1*	0	0	*0*	0	*0*
	Bronchitis/emphysema	0	0	*0*	0	0	*0*	1	*100*
	Infectious disease	0	0	*0*	0	0	*0*	0	*0*
	Non-malignant pleural disease	26	114	*29*	0	0	*0*	0	*0*
	predominantly plaques	*22*	*99*	-	-	-	-	-	-
	predominantly diffuse	*4*	*15*	-	-	-	-	-	-
	Unspecified/other	*1*	*1*	-	-	-	-	-	-
	Mesothelioma	17	160	*40*	0	0	*0*	0	*0*
	Lung cancer	3	25	*6*	0	0	*0*	0	*0*
	Pneumoconiosis	13	57	*14*	0	0	*0*	0	*0*
	Other	8	19	*5*	0	0	*0*	0	*0*
	Total diagnoses	**82**	**401**	**-**	**0**	**0**	***0***	**1**	**-**
	Total cases	**78**	**397**	***100***	**0**	**0**	***0***	**1**	***100***

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
SKIN	Contact dermatitis	115	401	*99*	5	27	*68*	0	*0*
	Allergic	*47*	*223*	-	-	-	-	-	-
	Irritant	*40*	*95*	-	-	-	-	-	-
	Allergic and irritant	*26*	*81*	-	-	-	-	-	-
	Unspecified	5	38	-	-	-	-	-	-
	Contact urticaria	3	14	*3*	0	0	*0*	0	*0*
	Folliculitis/acne	0	0	*0*	0	0	*0*	0	*0*
	Infective	0	0	*0*	0	0	*0*	1	*50*
	Mechanical	0	0	*0*	1	12	*30*	0	*0*
	Nail	0	0	*0*	0	0	*0*	1	*50*
	Neoplasia	1	1	*<1*	0	0	*0*	0	*0*
	Other	1	12	*3*	1	1	*3*	0	*0*
	Total diagnoses	**120**	**428**	**-**	**7**	**40**	**-**	**2**	**-**
	Total cases	**117**	**403**	***100***	**7**	**40**	***100***	**2**	***100***
MUSCULOSKELETAL	Hand/wrist/arm	**No case reports from clinical specialists**			23	144	*31*	4	*29*
	Elbow				6	39	*8*	1	*7*
	Shoulder				5	49	*11*	1	*7*
	Neck/thoracic spine				2	24	*5*	2	*14*
	Lumbar spine/trunk				13	123	*27*	4	*29*
	Hip/knee				3	25	*5*	1	*7*
	Ankle/foot				4	37	*8*	2	*14*
	Other				4	37	*8*	0	*0*
	Total diagnoses				**60**	**478**	**-**	**15**	**-**
	Total cases				**57**	**464**	***100***	**14**	***100***

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
MENTAL ILL-HEALTH	Anxiety/depression	**No case reports from clinical specialists**			29	260	*47*	3	*38*
	Post-traumatic stress disorder				4	37	*7*	1	*13*
	Other work-related stress				40	238	*43*	5	*63*
	Alcohol or drug abuse				0	0	*0*	0	*0*
	Psychotic episode				0	0	*0*	0	*0*
	Other				2	24	*4*	0	*0*
	Total diagnoses				**75**	**559**	**-**	**9**	**-**
	Total cases				**74**	**558**	***100***	**8**	***100***

As more than one diagnosis may be reported the sum of percentages and total cases in each diagnostic category may be greater than 100%

Other cases

OPs and GPs also report cases outwith the diagnostic categories listed in the table above, these included:

GP reports – a case of recurrent mastitis in a dog groomer attributed to dog dander and hair, and a needle stick injury in a nurse

OP reports – Two cases of noise induced hearing loss (NIHL) in transport workers and a fitter who suffered an ear drum rupture due to an exploding air bag. Also reported was a case of nerve damage in a cleaner after a foot injury, a cook who suffered a vaginal prolapse attributed to lifting, and four cases in protective service occupations (head injury, non-freezing cold injury and an anaphylactic reaction)

CASE OF THE QUARTER

We are very grateful to Dr Nick Richards for providing this interesting and informative 'Case of the Quarter' on lead poisoning in the UK. Please let us know if you would like to contribute a case report such as this or any other quarterly feature. We are obviously very pleased to be able to include articles penned by THOR participants.

LEAD POISONING STILL OCCURS IN THE UK

In March 2015 we were made aware of an employee of a lead rolling mill who was complaining of low energy and fatigue. We had been carrying out health surveillance there for 11 years. Early in 2015 it was noted that their blood leads and Zinc Protoporphyrin (ZPP) levels were rising alarmingly again accompanied by a significant drop in their haemoglobin levels. The blood lead range was 29 – 46 ug/dl and their ZPP range was 2.6 – 10.2 ug/g Hb. They were given advice about the effects of lead and all issued with the HSE booklet 'Lead and You'[1]. The employee with the lowest levels was new, but also had a severe needle phobia and subsequently refused a further blood test.

In April 2015 a visit was made to the lead rolling mill where they produce a variety of common lead products from 30 tonnes of scrap lead and 1400 tonnes of processed lead each year. The lead is heated in two gas furnaces to 400 degrees centigrade and then poured and rolled into sheets, and cut into various lengths for the construction industry. The main problem was likely to be the high levels of lead dust in the workplace, lack of effective PPE and the poor hygiene of their mainly young workforce. A full report with photos of the process was also sent to HSE. By June 2015 most of the blood lead and ZPP levels were falling again. We were unable to take blood from the needle phobic employee. After investigating many other ways of testing for inorganic lead levels, HSE was contacted for advice.

The author had previously used to test dockyard workers by checking their haemoglobin using the pinprick method and also checked their urinary coproporphyrin. HSE insisted that all employees at risk of lead poisoning have a statutory duty to comply with medical surveillance under section 7 of the Health & Safety at Work Act 1974[2], as well as the Control of Lead at Work Regulations 2002[3]. The young employee was taken to a local NHS laboratory and we believe he had a pinprick test for just his blood lead, which had now risen to 33.12 ug/dl. This company will therefore be closely followed up, especially in the light of a recent publication on lead toxicity by in Occupational Medicine by D A Gidlow[4] about the potential effects of lead poisoning that can occur at levels below those currently allowed in UK legislation.

Dr N C G Richards - Consultant Occupational Physician - Telford Occupational Health Service

31 August 2015

References
1. Lead and You - working safely with lead. The Health & Safety Executive. http://www.hse.gov.uk/pubns/indg305.pdf
2. The Health & Safety at Work Act 1974. UK Government Legislation. The National Archives. http://www.legislation.gov.uk/ukpga/1974/37/contents
3. Control of lead at work regulations 2002. The Health & Safety Executive. http://www.hse.gov.uk/pubns/books/l132.htm
4. D A Gidlow. Lead Toxicity – an in-depth review. Occupational Medicine. 2015; 65: 348-356

BECK REPORT

We are most grateful to Dr Mark Wilkinson for this quarter's 'Beck Report', which provides a commentary for cases of work-related skin disease reported to THOR and THOR-GP this quarter.

Methylisothiazolinone (MI), and allied compounds seem to be such a persistent and common cause of problems and we're constantly talking about them.

EPIDERM has published on the topic recently[1] using data you've provided confirming the rise in occupational cases to this allergen particularly amongst, unsurprisingly, hairdressers and beauty workers who are exposed to cosmetics but also in healthcare workers and manufacturing workers in general. We couldn't confirm the rise in painters reported by others although this is surprising given that of the 111 cases reported to EPIDERM this quarter 12 were attributable in whole or in part to MI and paint was the source of exposure in 3. That >10% of reported occupational dermatitis is in part attributable to MI suggests that exposure should be addressed in an occupational setting as well as domestically.

The EU has yet to legislate to control exposure to MI in cosmetic products, the proposal being to ban its use from leave-on products and limit exposure to 15ppm in rinse-off items, such as shampoos. There is an even greater issue in an occupational context. Currently, MI does not have a harmonised classification under Classification Labelling and Packaging (CLP) regulations as an allergen and consequently labelling of MI on safety data sheets (SDS) isn't mandatory. The current proposal[2] published in July 2015 is recommending labelling above a level of 0.06% when 'H317 may cause an allergic skin reaction' will have to be added to the SDS. Regrettably 0.06% is above the level at which patients already sensitised will react so if not altered, avoidance in the workplace may still prove difficult. Even in rinse-off products such as soap, 0.005% (50ppm) is sufficient to cause dermatitis[3].

On a lighter note, I felt sorry for the swimming instructor and personal trainer who developed fungal nail and groin infection attributed to 30 years spent in and around swimming pools – time to retire perhaps?

References

1. Methylchloroisothiazolinone and methylisothiazolinone contact allergy: an occupational perspective. Urwin R, Warburton K, Carder M, et al. Contact Dermatitis 2015; 72: 381-6
2. Proposal for Harmonised Classification and Labelling. http://echa.europa.eu/documents/10162/0d4c2335-6009-4e65-9278-c7f10a3a2dad
3. Methylisothiazolinone in rinse-off products causes allergic contact dermatitis: a repeated open-application study. Yazar K, Lundov MD, Faurschou A, Matura M, Boman A, Johansen JD, Lidén C. Br J Dermatol. 2015; 173: 115-22

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THOR News

LANE LECTURE

For several years the Centre for Occupational and Environmental Health has organised an annual lecture in memory of the first Professor of Occupational Medicine of this University – Ronald Lane. The University has the distinction of having the oldest extant chair in Occupational Medicine dating back to 1945.

On Thursday 12th November 2015 we are holding our annual showcase event, the Lane Symposium, which will be held at The Chancellors Conference Centre**. This is a public lecture to which all are invited.** This year's Lane Lecture will be presented by Professor Keith Palmer, Professor of Occupational Medicine at the University of Southampton entitled 'Health risks and benefits of extended working life: is retirement good for you?'.
http://www.population-health.manchester.ac.uk/epidemiology/COEH/aboutus/lectures/

THOR CONTACTS

Many thanks for your continued support of THOR, please contact us (Table 2) if you have any queries or data requests.

Table 2 THOR Contact details

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