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,

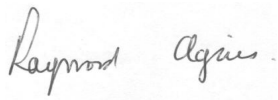
I am pleased to inform you that since I last wrote to you we have received the formal contract offer from HSE for further funding of the SWORD and EPIDERM schemes. This should ensure that we have adequate resources for data collection until the end of this year, with a provision for reporting and analysis until the end of next year. While this is not as secure and as comprehensive a funding situation as we would wish in the long term, it does provide us with medium term security and continuity. We remain grateful to you for your contribution to the THOR programme. In a scientific and medical sense your contribution is more valuable than the funding. In February we held a 2 day workshop with HSE to explore longer term research projects, especially in the current highly challenging environment.

Dr Yue (Anli) Zhou started working with us as an Academic Clinical Fellow (Specialist Registrar) in 2014. She has been undertaking research on work related mental ill-health (WRMIH), partly using THOR data. She has submitted a couple of papers for peer reviewed publication and we shall share summaries of the findings (especially about WRMIH in doctors) later this year. Anli has also worked with me to further improve the EELAB free CPD resource accredited by the Faculties of Occupational Medicine (London and Ireland) and which some of you use as our 'thank you' for contributing to THOR.

You may know Louise Hussey who joined us in 2001 as a project assistant, and rose through the ranks to become the THOR-GP Manager. Her motivation and scientific outlook drove her to successfully undertake a part-time PhD working on the THOR-GP data. In mid-March Louise left us to take up a Research Fellow post in another department at the University. We are most grateful for Louise's loyal service to THOR and wish her well in her new job. She will continue working to complete some interesting THOR papers which we plan to share with you in due course.

Thank you again for supporting THOR.

Best wishes,



Raymond Agius
Professor of Occupational and Environmental Medicine

QUARTERLY REPORT MARCH 2017

This THOR combined quarterly report (including THOR-GP) summarises all the cases reported in the quarter October to December 2016. It includes a special feature on Brexit and UK occupational health.

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 are pleased to hear from you.

CASE REPORTS: October to December 2016

Over 1000 physicians currently participate in THOR / THOR-GP (as of March 2017). 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 377 actual, 1697 (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 under further development)

Table 1 Actual and estimated cases by major category and diagnostic group, Oct to Dec 2016

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	14	14	*6*	1	1	*2*	1	*50*
	ascribed to sensitisation	*14*	*14*	-	-	-	-	-	-
	ascribed to irritation/RADS	-	-	-	-	-	-	-	-
	Unspecified	-	-	-	-	-	-	-	-
	Inhalation accidents	3	25	*10*	1	1	*2*	0	*0*
	Allergic alveolitis	1	1	*<1*	0	0	*0*	0	*0*
	Bronchitis/emphysema	2	13	*5*	1	12	*24*	0	*0*
	Infectious disease	0	0	*0*	1	12	*24*	0	*0*
	Non-malignant pleural disease	29	84	*35*	1	12	*24*	0	*0*
	predominantly plaques	*27*	*71*	-	-	-	-	-	-
	predominantly diffuse	*1*	*1*	-	-	-	-	-	-
	Unspecified/other	*4*	*15*	-	-	-	-	-	-
	Mesothelioma	8	41	*17*	0	0	*0*	0	*0*
	Lung cancer	0	0	*0*	0	0	*0*	0	*0*
	Pneumoconiosis	23	45	*19*	0	0	*0*	0	*0*
	Other	14	36	*15*	1	12	*24*	1	*50*
	Total diagnoses	94	**259**		**6**	**50**		**2**	
	Total cases	**88**	**242**	***100***	**6**	**50**	***100***	**2**	***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	81	279	*73*	6	39	*100*	2	*100*
	Allergic	*35*	*90*	-	-	-	-	-	-
	Irritant	*26*	*114*	-	-	-	-	-	-
	Allergic and irritant	*20*	*75*	-	-	-	-	-	-
	Unspecified	0	24	-	-	-	-	-	-
	Contact urticaria	5	27	*7*	0	0	*0*	0	*0*
	Folliculitis/acne	0	0	*0*	0	0	*0*	0	*0*
	Infective	0	0	*0*	0	0	*0*	0	*0*
	Mechanical	2	2	*1*	0	0	*0*	0	*0*
	Nail	0	0	*0*	0	0	*0*	0	*0*
	Neoplasia	11	55	*14*	0	0	*0*	0	*0*
	Other	5	60	*16*	0	0	*0*	0	*0*
	Total diagnoses	**104**	**423**		**6**	**39**		**2**	
	Total cases	**97**	**383**	***100***	**6**	**39**	***100***	**2**	***100***
MUSCULOSKELETAL	Hand/wrist/arm	**No case reports from clinical specialists**			23	155	*46*	3	*18*
	Elbow				5	16	*5*	2	*12*
	Shoulder				6	28	*8*	2	*12*
	Neck/thoracic spine				6	72	*21*	0	*0*
	Lumbar spine/trunk				8	63	*19*	6	*35*
	Hip/knee				1	12	*4*	1	*6*
	Ankle/foot				0	0	*0*	2	*12*
	Other				1	1	*<1*	1	*6*
	Total diagnoses				**50**	**347**		**17**	
	Total cases				**49**	**335**	***100***	**17**	***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**			50	281	*57*	6	*46*
	Post-traumatic stress disorder				0	0	*0*	0	*0*
	Other work-related stress				40	271	*55*	9	*69*
	Alcohol or drug abuse				0	0	*0*	0	*0*
	Psychotic episode				0	0	*0*	0	*0*
	Other				3	14	*3*	0	*0*
	Total diagnoses				**93**	**566**		**15**	
	Total cases				**83**	**490**	***100***	**13**	***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

In addition to the main diagnostic categories described in Table 1, OPs and GPs can report 'other' diagnoses of work-related ill-health (WRIH). OPs reported 11 'other' cases this quarter: noise induced hearing loss (3 cases); lead poisoning (3); allergic sensitisation (1); eye injury (1); hepatitis C (1); heart attack (co-diagnosis of anxiety (1)); stroke (co-diagnosis of anxiety and stress (1)). GPs reported 3 'other' cases of WRIH this quarter: 1 case of hearing loss; 1 case of a bite and 1 case of multiple sclerosis (exacerbated by co-diagnosis of anxiety).

QUARTERLY FEATURE

The result of the June 23rd referendum vote to leave the European Union (EU), (better known as Brexit) has led to political, economic and social instability for the UK. This will continue once Article 50 is invoked at the end of this month, triggering a 2 year period in which the UK will withdraw from the EU. Questions are starting to be asked in terms of whether Brexit will be good or bad for the future of occupational health - in an online article published in August 2016[1] , a number of key issues were set out. There are concerns that as UK health and safety regulation is so tightly bound to EU directives, standards and frameworks, that Brexit will result in a 'watering down' of the law which will be detrimental to the UK working population. Conversely, others felt that in some areas of health and safety regulation there was too much bureaucracy and adherence to directives that may not be that effective or are perceived as regulatory burdens. In addition, if the economy takes a downward turn, there are concerns that businesses might not want to spend on health and well-being in the workplace.

In the light of the current preoccupation with all things Brexit, we thought that our reporters might be interested in an example of one of the ways in which we can analyse the data you report to us via the THOR schemes in terms of evaluating directives that have come from EU legislation, and how these benefit the working population involved.

In a paper published in 2012 in the journal "Occupational and Environmental Medicine[2]", our team (Stocks et al) used cases of work-related skin disease reported by consultant dermatologists to EPIDERM to map changes in the incidence of allergic contact dermatitis (ACD) attributed to chromate in cement. This enabled an evaluation of the effectiveness of the EU Directive 2003/53/EC which restricted the marketing and use of cement containing >2 ppm of chromate in the UK. The time before the EU directive became law in the UK (2002–2004) was taken as the reference time period and compared with the time period after the implementation of the directive (2005–2009). Figure 1 shows the estimated annual change in incidence relative to 2005 of chromate attributed ACD in workers exposed to cement and all other ACD.

[1] http://www.personneltoday.com/hr/will-brexit-good-bad-uk-occupational-health-safety/

[2] Stocks SJ, McNamee R, Turner S, et al Has European Union legislation to reduce exposure to chromate in cement been effective in reducing the incidence of allergic contact dermatitis attributed to chromate in the UK? Occup Environ Med 2012;69:150-152.

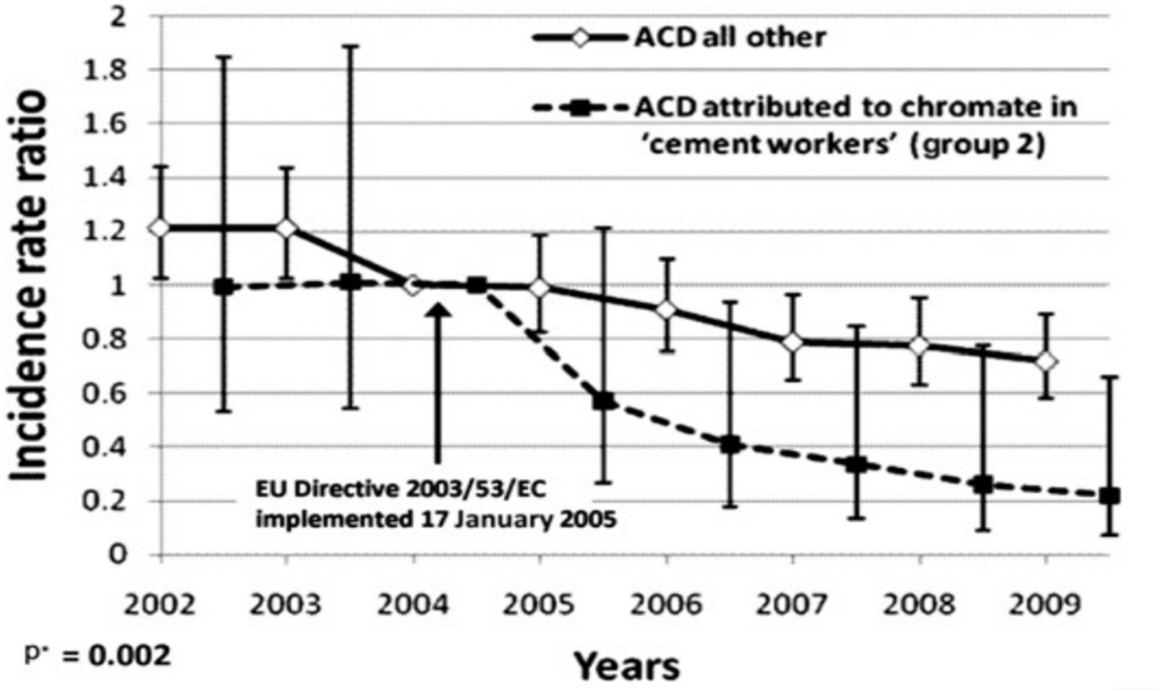


Figure 1 estimated annual change in incidence relative to 2005 of chromate attributed ACD in workers exposed to cement and all other ACD

In summary, the analysis showed there was a significant decline in the incidence of both ACD attributed to chromate (incidence rate ratio 0.48, 95% CI 0.36 to 0.64) and ACD not-attributed chromate (0.76, 95% CI 0.69 to 0.85) between the time period preceding the EU legislation (2002–2004) and the post-legislation period (2005–2009). Moreover this decline was even more marked in workers potentially exposed to cement (incidence rate ratio 0.37, p=0.001). We concluded that the timing of this significant decline in the UK incidence of chromate attributed ACD, and the greater decline in workers potentially exposed to cement, strongly suggests that the EU Directive2003/53/EC was successful in reducing exposure to chromate in cement in the UK.

As IOSH[3] have pointed out, the UK needs to "continue to apply the successful risk-based health and safety system, which includes laws from EU directives, because it has been found to be fit for purpose by several independent reviews and is respected and imitated across the world". Much rests on the type of Brexit the UK government might negotiate, and its impact may well have effects in terms of workplace health and well-being.

[3] http://www.shponline.co.uk/brexit-health-and-safety-reacts/

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 UK this quarter.

Prominent amongst the cases reported this quarter were two of stress aggravating atopic eczema in a university student and exacerbating seborrheic eczema in a 71-year-old carer. This started me off thinking how much evidence there actually is to support stress as a causal factor for eczema even though it appears to be an accepted trigger by the population.

In the case of hand eczema, there was no association in a study of 773 patients with stress[1] or body weight although severity was strongly correlated with tobacco smoking. Male sex, age and wet work were also associated with severity.

A case controlled study in atopic eczema demonstrated an association of stress/anxiety with the symptom of itch[2] and argued that this might then induce a vicious cycle. Many skin diseases impact on an individual's mental state and it can be difficult to establish causality. Interestingly in a study of exam stress, atopics were worse off psychologically compared to controls, but there was no significant effect on the severity of their atopic disease[3]. A systematic review in 2006 identified 2 papers that provided some evidence that stress may be a relevant cause in aggravation of atopic eczema.[4]

A French study of stress and seborrheic eczema starts in the introduction by stating that although it is accepted that stress aggravates the condition, there are no studies to support this opinion. Their study of 82 patients concludes that seborrheic eczema is often preceded by a stressful event but acknowledges the lack of controls[5]. They also conclude that depression is more common amongst those with facial involvement and that anxiety is an aggravating factor.

The oddity this quarter was the sports masseur allergic to their Emu oil. As Emu oil consists predominantly of unsaturated fatty acids, I assume they were allergic to either added fragrance or methylisothiazolinone to which they were stated to be allergic. Extraction of the oil is a terminal event for the bird and I was surprised to find that Emu farming is going global from its native Australia to China, India and the US!

Dr Mark Wilkinson, Leeds General Infirmary

[1] Sørensen JA, Fisker MH, Agner T, et al. Associations between lifestyle factors and hand eczema severity: are tobacco smoking, obesity and stress significantly linked to eczema severity? Contact Dermatitis. 2016 Oct 6. doi: 10.1111/cod.12674.
[2] Oh SH, Bae BG, Park CO, et al. Association of stress with symptoms of atopic dermatitis. Acta Derm Venereol. 2010; 90: 582-8.
[3] Jernelöv S, Höglund CO, Axelsson J, et al. Effects of examination stress on psychological responses, sleep and allergic symptoms in atopic and non-atopic students. Int J Behav Med. 2009; 16: 305-10.
[4] Langan SM, Williams HC. What causes worsening of eczema? A systematic review. Br J Dermatol. 2006; 155: 504-14
[5] Misery L, Touboul S, Vinçot C, et al. Stress and seborrhoeic dermatitis. Ann Dermatol Venereol. 2007; 134: 833-7.

THOR STAFF NEWS

Dr Louise Hussey, THOR-GP Manager, will be leaving COEH this month to take up a Research Fellow post in another department at the University. We wish her well in her new role and thank her for all the hard work she has put into THOR over the 15+ years she has worked here.

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

SCHEME	email	Phone
EPIDERM	Christina.O'Connor@manchester.ac.uk	0161 275 7103
SWORD	Christina.O'Connor@manchester.ac.uk	0161 275 7103
OPRA	Susan.taylor@manchester.ac.uk	0161 275 5531
THOR-GP	Susan.taylor@manchester.ac.uk	0161 275 5531
DATA REQUESTS	Melanie.carder@manchester.ac.uk	0161 275 5636
GENERAL ENQUIRIES	Annemarie.money@manchester.ac.uk	0161 275 8491