

THOR

The Health and Occupation Research network

(Incorporating specialists' and THOR-GP reports)

<http://www.medicine.manchester.ac.uk/oeh/research/thor>

Dear colleague,

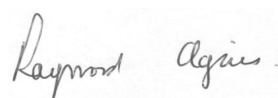
When one accesses the website of the HSE and searches for 'THOR' it is heartening to see the hundreds of pages of valuable statistics generated by THOR. Moreover the quantity is matched by quality - for a number of years the data outputs of THOR have been accorded the designation of 'National Statistics' by the UK Statistics Authority. The hundreds of THOR related publications in the peer-reviewed literature also attest the validity and utility of this research. All of this is only possible with your invaluable and continuing contribution which is much appreciated.

On our part we continue to strive to help fulfil your needs through THOR. From 2002 to 2014 we received and responded to over six hundred THOR data queries. The largest category of queries (just over one third) was from THOR reporting physicians such as you. General Practitioners in THOR-GP are offered free access to our online Continuing Professional Development (CPD) resource. This is entitled 'Electronic, Experiential, Learning, Audit and Benchmarking' (EELAB). EELAB has been accredited for CPD purposes by the Royal College of General Practitioners for three consecutive years. Together with pilot groups of occupational physicians we are developing a version of EELAB for occupational physicians, and plan to develop versions for chest physicians and dermatologists too. Thus we hope to further support participating THOR physicians' CPD by supplementing their reporting with interactive resources as well as the opportunity for reflective self learning.

The UK Health and Safety Executive currently funds THOR-GP, SWORD and EPIDERM and we are in the last year of our current THOR funding cycle. OPRA is currently funded from charitable or other sources. We have of course sought further support from HSE, and await the outcome of our bids for future funding and will continue to keep you informed.

Meantime I hope that you will enjoy a well deserved break this summer.

Best wishes



Raymond Agius
Professor of Occupational and Environmental Medicine

2014 ANNUAL REPORT

This combined THOR and THOR-GP annual report covers cases received in the most recent year for which we have a full set of data, namely, January to December 2014. Additional information relating to the period January to March 2015 (i.e. information that you would have received in your 'usual' quarterly report) is provided in Appendix 1. A list of recent publications is provided in Appendix 2.

If you have any comments or suggestions on the type or presentation of information that you would like to see included in future 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.

LEVEL OF PARTICIPATION

Over 1100 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 1711 actual cases, (7310 estimated cases) were reported during 2014, 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, consultants in communicable disease control (CCDCs), occupational physicians (OPs) and general practitioners (GPs)) are shown in Table 1 (NB. only actual cases are provided for THOR-GP and SIDAW; methods for calculating estimated totals based on GP reports are under development, and CCDCs report as core participants only).

Table 1 **Estimated diagnoses* by major category and diagnostic group – January to December 2014**

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	69	146	9	8	74	43	2	33
	<i>ascribed to sensitisation</i>	62	139	-	-	-	-	-	-
	<i>ascribed to irritation/RADS</i>	8	19	-	-	-	-	-	-
	<i>Unspecified</i>	-	-	-	-	-	-	-	-
	Inhalation accidents	1	1	<1	0	0	0	0	0
	Allergic alveolitis	3	14	1	0	0	0	0	0
	Bronchitis/emphysema	6	17	1	1	12	7	1	17
	Infectious disease	3	36	2	1	1	1	0	0
	Non-malignant pleural disease	133	628	39	1	12	7	0	0
	<i>predominantly plaques</i>	96	503	-	-	-	-	-	-
	<i>predominantly diffuse</i>	34	100	-	-	-	-	-	-
	<i>Unspecified/other</i>	8	63	-	-	-	-	-	-
	Mesothelioma	50	369	23	0	0	0	0	0
	Lung cancer	19	96	6	0	0	0	0	0
	Pneumoconiosis	66	275	17	1	12	7	0	0
	Other	37	81	5	9	75	43	3	50
	Total diagnoses	387	1663		21	186		6	
	Total cases	359	1613	100	19	173	100	6	100

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
SKIN	Contact dermatitis	438	1142	76	42	196	61	15	88
	<i>Allergic</i>	158	400	-	-	-	-	-	-
	<i>Irritant</i>	179	487	-	-	-	-	-	-
	<i>Allergic and irritant</i>	96	250	-	-	-	-	-	-
	<i>Unspecified</i>	5	5	-	-	-	-	-	-
	Contact urticaria	11	33	2	3	25	8	1	6
	Folliculitis/acne	0	0	0	0	0	0	1	6
	Infective	0	0	0	3	14	4	1	6
	Mechanical	2	2	<1	2	24	8	0	0
	Nail	2	2	<1	0	0	0	0	0
	Neoplasia	61	325	22	3	36	11	0	0
	Other	1	12	1	3	25	8	0	0
	Total diagnoses	515	1516		56	320		18	
	Total cases	510	1500	100	56	320	100	17	100
MUSCULOSKELETAL	Hand/wrist/arm	No case reports from clinical specialists			87	439	36	20	24
	Elbow				9	20	2	6	7
	Shoulder				11	55	5	12	14
	Neck/thoracic spine				8	63	5	5	6
	Lumbar spine/trunk				37	345	29	24	29
	Hip/knee				17	171	14	16	19
	Ankle/foot				6	39	3	5	6
	Other				12	100	8	4	5
	Total diagnoses				187	1232		92	
	Total cases				182	1205	100	84	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			188	991	44	21	36
	Post-traumatic stress disorder				14	146	6	0	0
	Other work-related stress				209	1320	58	43	73
	Alcohol or drug abuse				1	12	1	2	3
	Psychotic episode				1	1	<1	0	0
	Other				6	28	1	2	3
	Total diagnoses				419	2498		70	
	Total cases				378	2270	100	59	100
INFECTIOUS DISEASE	Diarrhoeal disease	22	22	100	0	0	0	0	0
	Brucellosis	0	0	0	0	0	0	0	0
	Hepatitis	0	0	0	0	0	0	0	0
	Legionellosis	0	0	0	0	0	0	0	0
	Leptospirosis	0	0	0	1	12	100	0	0
	Ornithosis	0	0	0	0	0	0	0	0
	Pulmonary TB	0	0	0	0	0	0	0	0
	Q Fever	0	0	0	0	0	0	0	0
	Scabies	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0
	Total diagnoses	22	22		12	12		0	
	Total cases	22	22	100	12	12	100	0	0

**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 categories described in Table 1, OPs and GPs report other diagnoses of work-related ill-health not classified within these major diagnostic groups.

In 2014 OPs reported 13 actual 'other' cases of work-related ill-health; 5 of these were reports with audiological conditions which comprised 3 cases of noise induced hearing loss (NIHL), 1 case of bilateral high tone deafness and 1 case of hearing loss and tinnitus. 2 with stress like conditions comprising 1 case of stress migraine and 1 case of chronic fatigue syndrome. 6 other cases of ill-health caused or aggravated by work were reported by OPs as the following: DVT and embolus; transient ischaemic attack; angina; irritable bowel syndrome and gastroenteritis; dry red eye; testicular cancer.

GPs reported 14 cases of 'other' work-related ill-health in 2014; 3 hearing disorders (unilateral tinnitus; unilateral hearing loss; hearing difficulty tinnitus); 7 injuries (electric shock; foreign body in eye; corneal abrasion; arc-welders' keratitis; 3 lacerations and 2 'other' cases reported as palpitations, right upper quadrant pain).

INCIDENCE RATES OF WORK-RELATED ILL-HEALTH

For SWORD and EPIDERM incidence rates per 100,000 employed per annum are calculated using data from the Labour Force Survey as the population denominator. For THOR-GP the methodology for calculating incidence rates is based on characterising the size and employment of the population registered with each participating GP's practice by linking the postcode of the practice to Census information. When comparing rates from the three schemes it is important to note that incidence rates calculated using THOR specialist data are much smaller than those based on THOR-GP cases, as SWORD and EPIDERM are based on cases referred for specialist investigation.

Due to a very 'patchy' denominator, it is generally not possible to provide incidence rates based on case reports from occupational physicians. However, based on estimated cases, the most frequently reported industries for cases of work-related ill-health reported by OPs to OPRA (2014) were health and social care (37%), public administration and defence (18%), education (8%), retail trade and manufacture of motor vehicles (both 3%) whilst frequently reported occupations were: nurses (10%), non-commissioned officers (9%) and care assistants (5%).

SWORD AND EPIDERM

Figures 1 and 2 show incidence rates for skin and respiratory disease per 100,000 persons employed per annum reported to EPIDERM and SWORD in 2014 by industry.

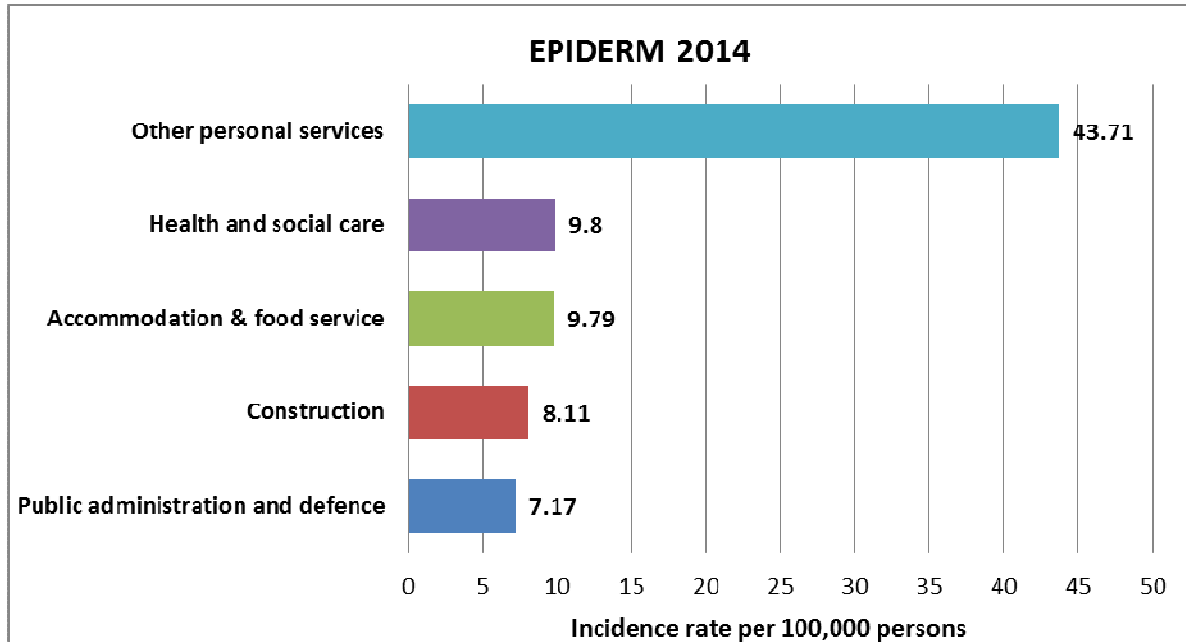


Figure 1 Incidence rates (per 100,000 persons employed per annum) for the most frequently reported industries for work-related skin disease reported to EPIDERM (2014)

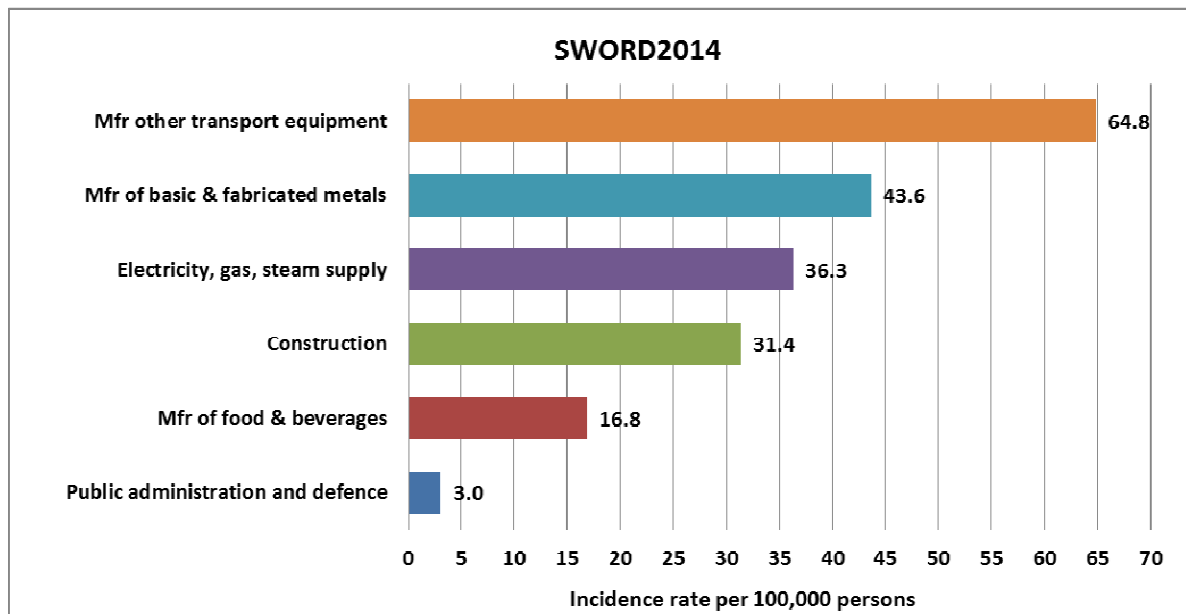


Figure 2 Incidence rates (per 100,000 persons employed per annum) for the most frequently reported industries for work-related respiratory disease reported to SWORD (2014)

Figures 3 and 4 show incidence rates for skin and respiratory disease per 100,000 persons employed per annum reported to EPIDERM and SWORD in 2014 by occupation.

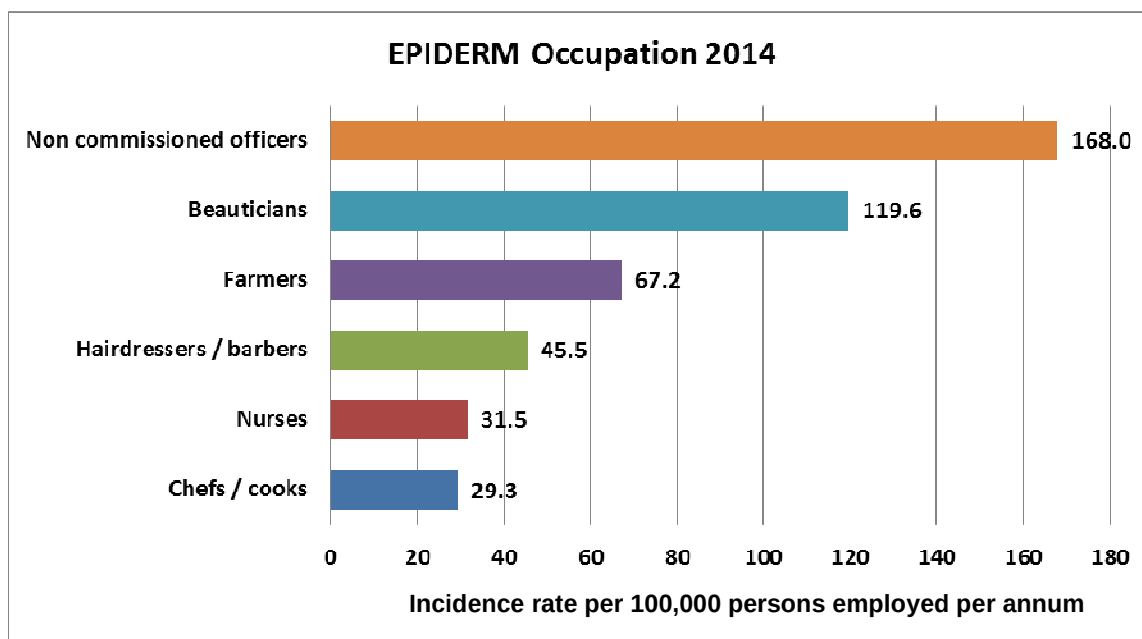


Figure 3 Incidence rates (per 100,000 persons employed per annum) for the most frequently reported occupations for work-related skin disease reported to EPIDERM (2014)

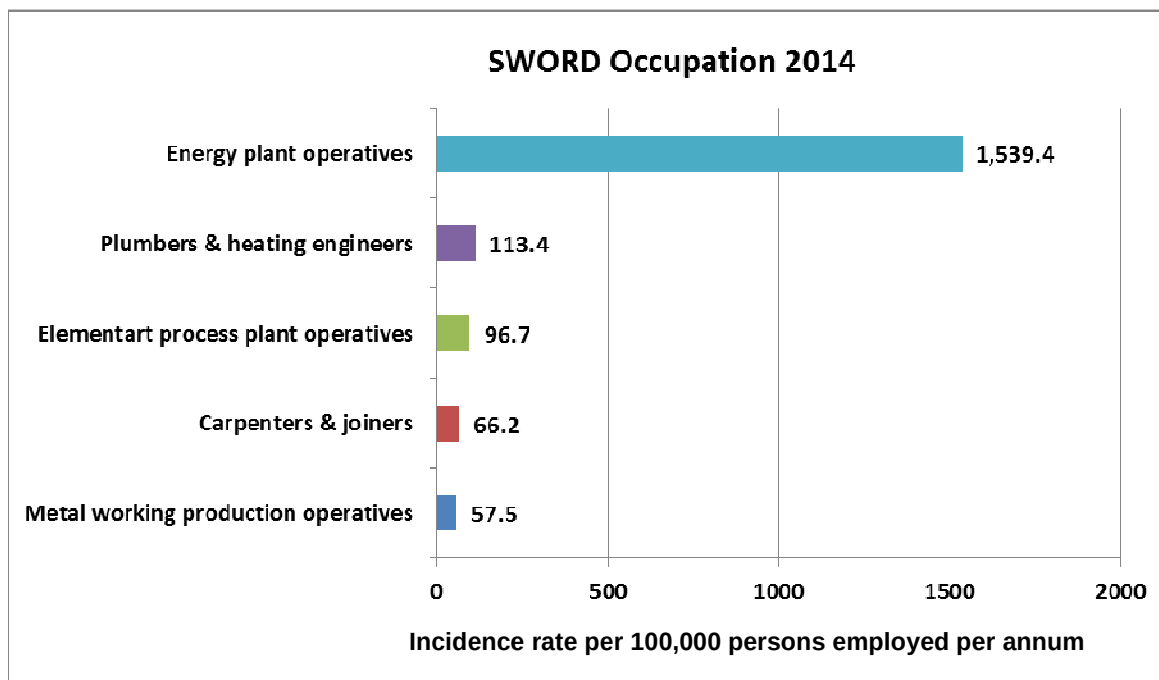


Figure 4 Incidence rates (per 100,000 persons employed per annum) for the most frequently reported occupations for work-related respiratory disease reported to SWORD (2014)

THOR-GP

Figures 5 and 6 show incidence rates per 100,000 persons employed per annum based on data reported to THOR-GP in 2014 by industrial sector and major occupational group. Each bar is broken up into sections to illustrate the diagnostic categories of the cases that make up these rates of incidence.

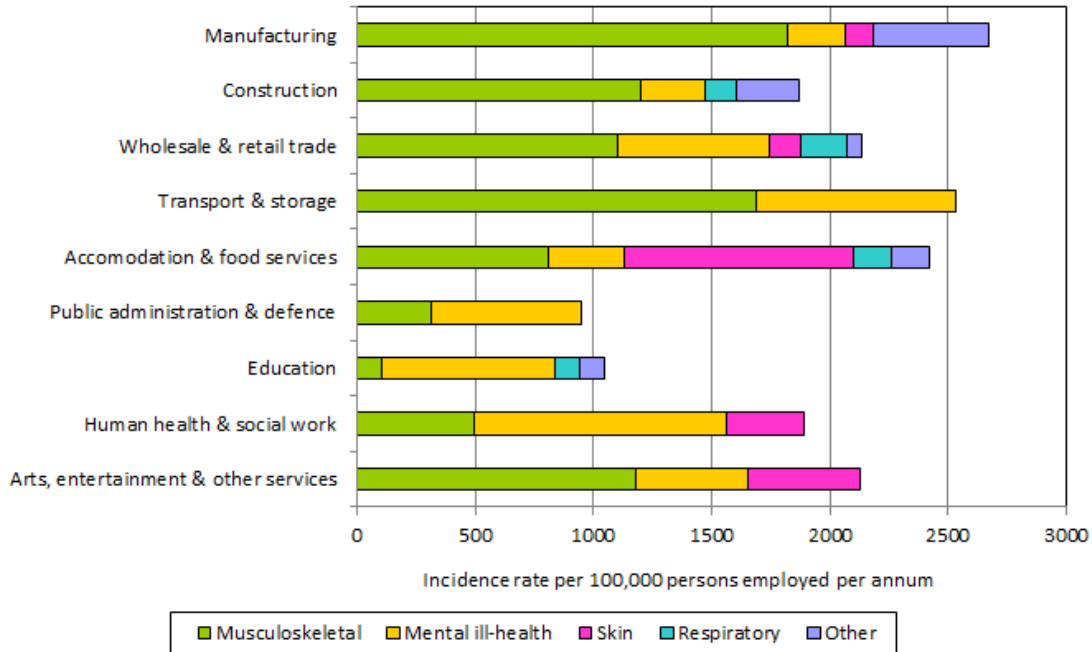


Figure 5 Incidence rates (per 100,000 persons employed per annum) of work-related ill-health for the most frequently reported industrial sectors reported to THOR-GP (2014)

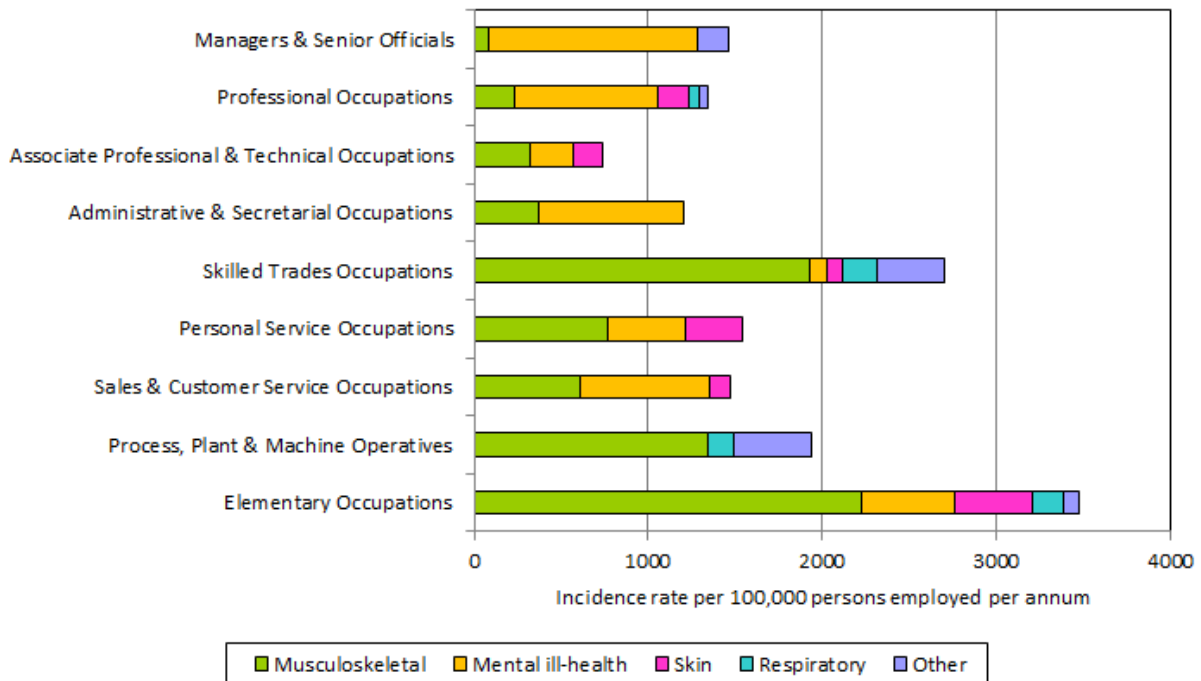


Figure 6 Incidence rates (per 100,000 persons employed per annum) of work-related ill-health by major occupational group reported to THOR-GP (2014)

SICKNESS ABSENCE

In total, GPs reported 2163 days of certified sickness absence associated with the work-related cases in 2014. The proportion of cases issued with sickness certification showed a marked variation between diagnostic categories with mental ill-health cases issued with sickness certification (79%) more frequently than other diagnoses (see Figure 7).

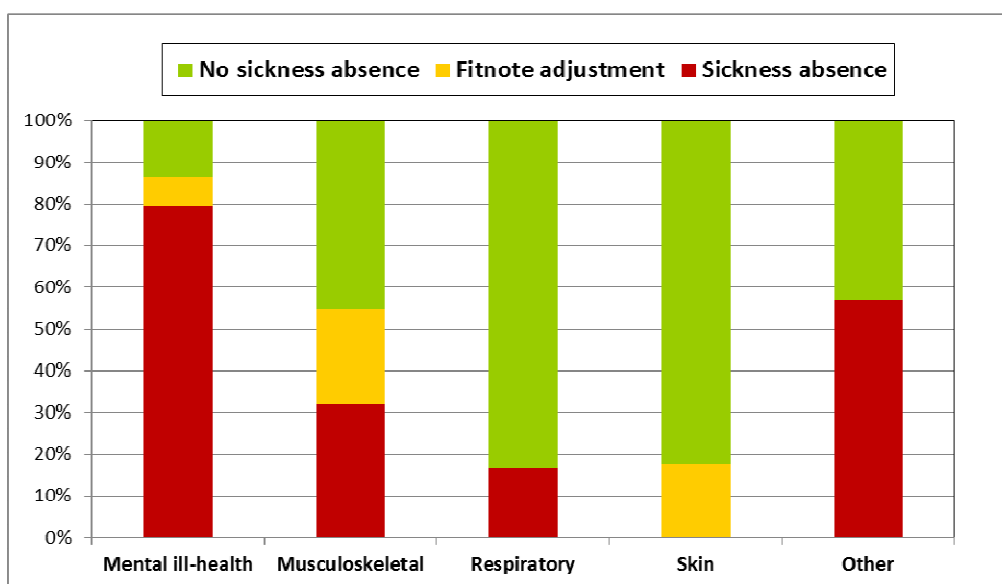


Figure 7 Proportion of cases with certified sickness absence by major diagnostic category (THOR-GP 2014)

Of the 177 cases reported to THOR-GP in 2014, just under half (83/177, 47%) were issued with sickness certification and 26 (15%) were recommended workplace 'fit note' adjustments, 10 of which were further referred to physiotherapy / occupational health physician / hospital consultant (e.g. dermatologist). Of those fit note adjustments, amended duties (e.g. avoiding heavy lifting, job rotation etc.) were recommended most frequently. On a number of fit notes issued, the GP recommended more than one adjustment for the patient, e.g. amended duties and work adaptation (Figure 8). Examples of other comments made on the fit notes certified include advice to a postman with plantar fasciitis to use alternative footwear.

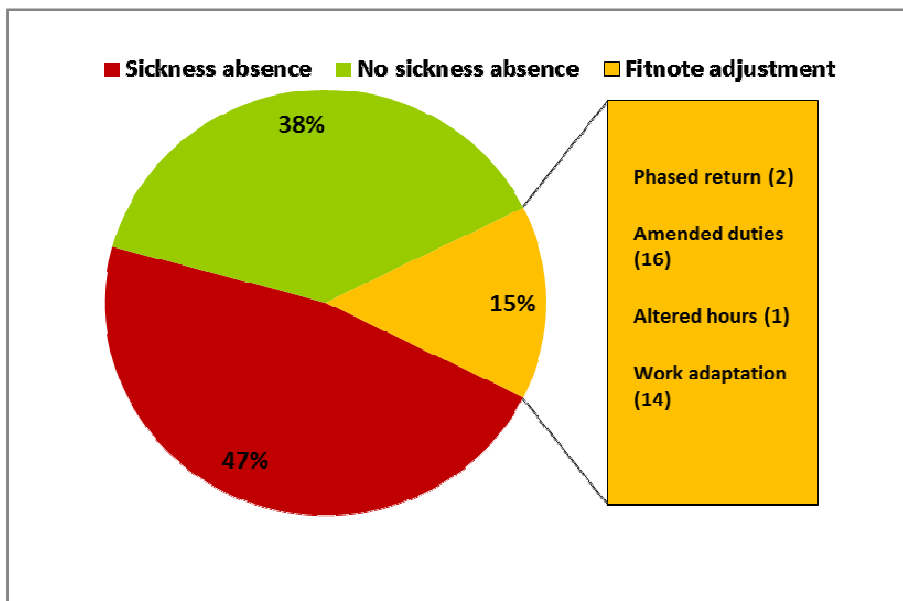


Figure 8 Proportion of THOR-GP cases by sickness absence certification category (THOR-GP 2014)

CASE STUDY

We would like to thank Dr Gill Harris for this interesting report describing work-related upper limb conditions attributed to the use of hand held tablet computers in health care professionals

This report describes 2 cases of work-related upper limb conditions in community health care professionals, directly attributable to inappropriate use of a hand held tablet. This device has a 7 inch screen, similar in size to the electronic book. There are many advantages to using this tablet device as an aid for nurses to add clinical information to patient records, which can then be accessed by other care professionals involved in the care of the patient, allowing a multi-disciplinary and collaborative approach to patient care. The tablet also provides quick access to an array of useful information at all times. However, on a precautionary note, these devices are not without risk, as poor posture and overuse can result in work-related neck and upper limb symptoms.

The first case is a 40 year old female district nurse who attended Occupational Health with a 3 month history of pain at the base of her left thumb. Six months prior, she had started using the device initially to supplement her paper notes. More recently the department had adopted a “paperless” mode of working i.e. all patient information was now captured electronically on the device, a task which could result in periods of up to one hour inputting data. She described symptoms of pain at the base of the thumb which occurred after holding the device for more than 5 minutes. She used the left hand to hold the tablet and the right hand to input data. The prolonged gripping action required, with the wrist and thumb in a flexed position, for periods of up to one hour, triggered symptoms and clinical signs consistent with De Quervain’s tendonitis.

The second case occurred in an extended scope community practitioner, responsible for the Occupational Therapy needs of patients. She was right handed and experienced symptoms of

pain over the extensor tendons of the right forearm, which occurred after repeated and prolonged periods of inputting data onto the device, usually between patient visits when seated in the driving seat in the car. She too had moved to a “paperless” mode of working in the months preceding development of symptoms.

The two cases illustrate that inappropriate use of certain devices can lead to different problems in both upper limbs, one as a result of prolonged gripping and the other as a result of repetitive data inputting in unsuitable ergonomic settings. Both cases were referred to the Health and Safety Executive as work-related upper limb conditions and risk assessments undertaken on the use of the particular device.

These cases emphasise the importance of the following:

1 Introduction of a robust policy to ensure management and employees are fully aware of the ergonomic risks associated with such devices. The focus should be on ensuring a risk assessment is completed for tasks where such devices are to be used. Implementation of a health and safety training programme for potential users, the aim being to raise awareness of the risk involved in inappropriate use of this device. Training should cover the adoption of optimal posture with emphasis on suitable locations for inputting data. Working practices should ensure the devices are used for short periods only and, where required for longer periods, employees should utilise aids to improve posture and help prevent ergonomic issues developing e.g. laptop tray, keyboard and car mount for use in the car. Employees should be encouraged to sit in the passenger seat when inputting data onto the device.

2 The optimal situation is one where data is quickly entered onto the device in short bursts maximising the use of tick box facilities. This reduces repetitive hand movements over long periods, which occur when inputting free text. In the event that the employee is required to use the device for longer periods of time, particularly if it is to be a substitute for paper notes, the Display Screen Equipment regulations are likely to apply.⁽¹⁾⁽²⁾

3 As tablets’ popularity continues to grow, blurring of the boundary between personal and work life is inevitable and managing the work/life balance is likely to become more challenging ⁽³⁾ It is now recognised that the use of tablets places employees at risk of developing musculoskeletal disorders. Several reports published have warned against the potential risks related to tablets since the launch of the iPad in 2010. ⁽⁴⁾These include bad posture ⁽⁵⁾, RSI ⁽⁶⁾ and neck discomfort. ⁽⁷⁾ Tablets encourage poor posture and a prolonged use could lead to neck, back, wrist and finger discomfort. Employers may now need to adjust their policies to address this shift and support their employees who work in multiple locations and manage multiple devices, providing appropriate risk assessments, training and awareness to minimize the risk of ergonomic overuse injuries ⁽⁸⁾ Ultimately the design of such devices is fundamentally flawed from an ergonomic perspective and a better understanding of all issues is now needed to drive the evolution of better technologies in the future.

1. HSE (2003) Work with Display Screen Equipment: Health and Safety (Display Screen Equipment) Regulations 1992 as Amended by the Health and Safety (Miscellaneous Amendments) Regulations 2002: Guidance on Regulations. HSE Publication L26. Sudbury, UK: HSE Books.

2. HSE (2006) Working with VDUs. Health and Safety Executive.

3. Hill, E.J., Ferris, M., and Martinson, V. (2003), ‘Does It Matter Where You Work? A Comparison of How Three Work Venues (Traditional Office, Virtual Office, and Home Office) Influence Aspects of Work and Personal/Family Life’, Journal of Vocational Behavior, 63(2), 220-241.

4. Katarzyna Marta. *An ergonomic evaluation of the potential impact of touch-screen tablets on office workers*. A Project report submitted in part fulfilment of the requirements for the degree of Master of Science (Human-Computer Interaction with Ergonomics) in the Faculty of Brain Sciences, University College London, 2012.
5. Jafri, S. (2012) *5 Reasons the iPad may be Bad for Ergonomics*. <http://www.suite101.com/content/5-reasons-the-ipad-may-be-bad-for-ergonomics-a222510> (retrieved 8/06/2013)
6. McCauley, D. (2011) *iPad Neck - ergonomics experts warn of tablet injury*. Retrieved July 11, 2012 from Herald Sun: <http://www.heraldsun.com.au/technology/tablets/switching-from-a-computer-to-ipad-could-be-a-pain-in-the-neck-ergonomics-experts-warn/story-fn5qlb5w-1226113141390>
7. Tessler, F. (2012) *The hidden danger of touchscreens*. Retrieved July 11, 2012 from InfoWorld: <http://www.infoworld.com/t/laptops/the-hidden-danger-touchscreens-181774>
8. Vartiainen, M., & Hyrkkänen, U. (2010) "Changing requirements and mental workload factors in mobile multi-locational work", *New Technology, Work and Employment* 25(2).

BECK REPORT

We are most grateful to Dr Mark Wilkinson for providing the Beck Report, which provides a commentary for cases of work-related skin disease reported to THOR and THOR-GP throughout January to March 2015. Please note that the information used by Dr Wilkinson incorporates case reporting to EPIDERM, OPRA and THOR-GP, so the "numbers" cited here may differ to those within the table in Appendix One.

Cases of allergy to MI & MCI continue unabated. This quarter there was also a case of allergy to octylisothiazolinone present in cutting fluid in a metal machinist. Studies suggest that this and benzisothiazolinone do not cross react with MI but where co sensitisation occurs it is a result of independent sensitisation and co exposure¹.

On the topic of cross reactions, I was interested to see a hairdresser allergic to a number of glucosides: coco glucoside, decyl glucoside, lauryl glucoside, cetearyl glucoside and capryl/caprylyl glucoside; suggesting that they do cross react. Glucosides are less irritant non-ionic surfactants used in cosmetics including baby shampoo and products for sensitive skin. Many 'natural' personal care companies use them because they are plant-derived and biodegradable. Glucosides have also been of interest as an undeclared contaminant in the sunscreen bis-benzotriazolyl tetramethylbutylphenol (Tinosorb® M)ⁱ².

I was interested to notice that 13 (10.6%) of the cases attributed cobalt as a contributory factor this quarter. The occupations involved were varied from: construction; steel industry; surveyor; teacher; farmer; builder; nurse - laundry trolley; cashier; soldier; teacher; operating theatre manager; sports science; TV aerial erector. The source of exposure in most of these was not always apparent and in many likely to be transitory such as from coins and other metal objects. A previous EPIDERM study identified the commonest occupations as hairdressers/barbers, builders/building contractors, retail cash/checkout operators, machine operatives and domestic cleaners for cobalt-related occupational contact dermatitis³.

Most bizarre case of the quarter goes to the chef who developed burns after standing on the hob to clean a deep fat fryer! Obviously didn't read the guidance on fire walking: to keep moving but that you're more likely to be burnt when running through embers since running pushes one's feet deeper into the embers causing the top of the feet to be burnt. Foreign objects in the coals, especially metal, also result in burns since it has a higher thermal conductivity in comparison to embers.

(i) Geier J, Lessmann H, Schnuch A, Uter W. Concomitant reactivity to methylisothiazolinone, benzisothiazolinone, and octylisothiazolinone. International Network of Departments of Dermatology data, 2009-2013. *Contact Dermatitis*. 2015;72:337-9

(ii) Liuti F, Borrego L. Contact dermatitis caused by Tinosorb® M: the importance of patch testing with pure methylene bis-benzotriazolyl tetramethylbutylphenol. *Contact Dermatitis*. 2015 May 11. doi: 10.1111/cod.12417. [Epub ahead of print]

(iii) Athavale P, Shum KW, Chen Y, Agius R, Cherry N, Gawkrödger DJ. Occupational dermatitis related to chromium and cobalt: experience of dermatologists (EPIDERM) and occupational physicians (OPRA) in the U.K. over an 11-year period (1993-2004). *Br J Dermatol*. 2007; 157: 518-22.

THOR CONTACTS

Many thanks for your continued support to THOR. Please feel free to contact us (Table 2) if you have any queries or require duplicate reporting cards / details about electronic reporting.

Table 2 THOR Contact details

SCHEME	email	phone
EPIDERM	Christina.O'Connor@manchester.ac.uk	0161 275 7103
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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 louise.hussey@manchester.ac.uk	0161 275 5531 0161 275 8492
DATA REQUESTS	melanie.carder@manchester.ac.uk	0161 275 5636
GENERAL ENQUIRIES	Annemarie.money@manchester.ac.uk	0161 275 8491

Appendix 1 Quarterly report – January-March 2015

Table A1. Estimated diagnoses by major category and group – January to March 2015

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	18	29	10	0	0	0	0	0
	<i>ascribed to sensitisation</i>	17	28	-	-	-	-	-	-
	<i>ascribed to irritation/RADS</i>	1	1	-	-	-	-	-	-
	<i>Unspecified</i>	-	-	-	-	-	-	-	-
	Inhalation accidents	3	14	5	0	0	0	0	0
	Allergic alveolitis	6	6	2	0	0	0	0	0
	Bronchitis/emphysema	4	15	5	1	12	32	0	0
	Infectious disease	0	0	0	0	0	0	1	50
	Non-malignant pleural disease	35	145	50	0	0	0	0	0
	<i>predominantly plaques</i>	26	136	-	-	-	-	-	-
	<i>predominantly diffuse</i>	7	7	-	-	-	-	-	-
	<i>Unspecified/other</i>	3	14	-	-	-	-	-	-
	Mesothelioma	10	65	22	0	0	0	0	0
	Lung cancer	1	1	<1	0	0	0	0	0
	Pneumoconiosis	16	16	6	0	0	0	0	0
	Other	10	10	3	3	25	68	1	50
	Total diagnoses	103	301	-	4	37	-	2	-
	Total cases	94	292	100	4	37	100	2	100

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
SKIN	Contact dermatitis	106	260	64	6	61	84	0	0
	<i>Allergic</i>	36	69	-	-	-	-	-	-
	<i>Irritant</i>	36	124	-	-	-	-	-	-
	<i>Allergic and irritant</i>	33	66	-	-	-	-	-	-
	<i>Unspecified</i>	1	1	-	-	-	-	-	-
	Contact urticaria	4	4	1	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	1	1	<1	0	0	0	0	0
	Nail	0	0	0	0	0	0	0	0
	Neoplasia	15	147	36	0	0	0	0	0
	Other	1	1	<1	1	12	16	1	100
	Total diagnoses	127	413	-	7	73	-	1	-
	Total cases	123	409	100	7	73	100	1	100
MUSCULOSKELETAL	Hand/wrist/arm	No case reports from clinical specialists			20	141	27	8	26
	Elbow				2	2	<1	2	7
	Shoulder				6	50	10	2	7
	Neck/thoracic spine				1	12	2	2	7
	Lumbar spine/trunk				18	194	37	10	32
	Hip/knee				8	63	12	3	10
	Ankle/foot				4	48	9	4	13
	Other				2	24	5	2	7
	Total diagnoses				61	534	-	33	-
	Total cases				60	522	100	31	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			37	257	36	7	37
	Post-traumatic stress disorder				1	12	2	0	0
	Other work-related stress				58	531	73	13	68
	Alcohol or drug abuse				0	0	0	0	0
	Psychotic episode				0	0	0	0	0
	Other				3	14	2	1	5
	Total diagnoses				99	814	-	21	-
	Total cases				87	725	100	19	100

Other cases reported were as follows:

Occupational physicians – 5 cases of lead poisoning in ‘lead workers’

General practitioners – Sore eyes attributed to air conditioning in a health care worker, varicose veins due to prolonged standing in a dentist, atrial fibrillation in a driver and Lyme disease in a forester.

APPENDIX 2 RECENT THOR PUBLICATIONS

The following are recently published, or forthcoming, papers based on THOR work:

Agius R and Hussey L. *Certified sickness absence: does the fit note work?* Invited commentary, *Occup Environ Med* 2015 Feb 24. pii: oemed-2014-102685. doi: 10.1136/oemed-2014-102685. [Epub ahead of print]

Hussey L, Money A, Gittins M, Agius R. *Has the fit note reduced general practice sickness certification rates?* *Occupational Medicine* 2015;doi: 10.1093/occmed/kqu207

Money A, Hann M, Turner S, Hussey L and Agius R. *The influence of prior training on GPs' attitudes to sickness absence certification post-fit note.* Primary Health Care Research and Development.

DOI: <http://dx.doi.org/10.1017/S1463423614000577>

Stocks SJ, McNamee R, Turner S, Carder M, Agius RM. *The impact of national level interventions to improve hygiene on the incidence of irritant contact dermatitis in healthcare workers: changes in incidence from 1996-2012 and interrupted times series analysis.* *Br J Dermatol.* 2015 Feb 5. doi: 10.1111/bjd.13719. [Epub ahead of print]

Stock SJ et al. *Trends in incidence of occupational asthma, contact dermatitis, noise-induced hearing loss, carpal tunnel syndrome and upper limb musculoskeletal disorders in European countries from 2000 to 2012* *Occup Environ Med* doi:10.1136/oemed-2014-102534

Warburton KL, Urwin R, Carder M, Turner S, Agius R, Wilkinson SM. *UK rates of occupational skin disease attributed to rubber accelerators, 1996-2012.* *Contact Dermatitis.* 2015 Feb 25. doi: 10.1111/cod.12356. [Epub ahead of print]

Urwin R, Warburton K, Carder M, Turner S, Agius R, Wilkinson SM. *Methylchloroisothiazolinone & methylisothiazolinone contact allergy: an occupational perspective.* *Contact Dermatitis.* 2015 Jun;72(6):381-6. doi: 10.1111/cod.12379. Epub 2015 Mar 25.

Jabbour R, Turner, S, Hussey, L & Agius, R. *Workplace injury data reported by occupational physicians and general practitioners.* *Occup Med (Lond).* 2015 Jun;65(4):296-302. doi: 10.1093/occmed/kqv014. Epub 2015 Apr 16.

Carder M et al. *A review of occupational disease surveillance systems in Modernet countries.* *Occupational Medicine*, in press

Money, A, Carder, M, Hussey, L and Agius, R *The utility of information collected by occupational disease surveillance systems*, *Occupational Medicine*, in press
