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,

Please find attached our latest quarterly report to keep you informed on our progress and activity in THOR. As always, we work to meet the needs and demands pertaining to our activity – and these relate both to yourselves as the community of reporters, as well as the funders.

The welcome news that both Faculties of Occupational Medicine (Ireland and London) have, in principle, accepted to give CPD accreditation for our 'EELAB' resource linked to THOR participation which means that very soon we shall open this up to OPRA reporters in the UK and Republic of Ireland.

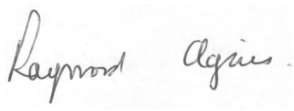
Negotiations are in progress with HSE regarding funding of THOR data collection in 2017, and we shall keep you posted as matters are confirmed.

As you might recollect, HSE ceased its commitment to financially support Surveillance of Infectious Diseases at Work (SIDAW) at the end of 2008, and we have been 'carrying' data collection for SIDAW since then. Over the last five years or so we have seen a big drop in the numbers reported, most likely due to changes within Public Health England and therefore, after consultation, we have ended active data collection for SIDAW. Approximately 17,500 cases had been reported to SIDAW since data collection commenced in 1996, giving rise to several peer reviewed articles. Information on infectious diseases is still collected by Public Health England through NOIDs (Notifications of Infectious Diseases). Although physicians reporting to NOIDs are not specifically asked to record whether the case was work-related or not, they are asked to record the occupation. Thus, there may be scope in the future for adapting this data source to identify work-related infectious disease more accurately. Of course occupational and work-related infectious diseases can still be notified to the other THOR schemes i.e. by chest physicians (SWORD), dermatologists (EPIDERM), occupational physicians (OPRA) and GPs (THOR-GP). In excess of 4,000 infectious cases have been reported to these schemes since their inception.

I am pleased to share the good news that a paper written by Dr Jill Stocks (in collaboration with others in THOR and abroad), was selected as one of two winners of the ‘Best Paper in Epidemiology in Occupational Health’ Award by EPICOH - the Scientific Committee on Epidemiology in Occupational Health of the International Commission on Occupational Health. The paper is the first reference in Mark Wilkinson's Beck Report below.

Your input to THOR continues to be valued by us and by the medical and scientific community, as well as by policymakers in our field. Please contact us as and when we can help you.

Best wishes



Raymond Agius
Professor of Occupational and Environmental Medicine

QUARTERLY REPORT MARCH 2016

This THOR and THOR-GP combined quarterly report summarises all the cases reported in the quarter October to December 2015. It includes a special feature on workplace injury.

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 2015

Over 1000 physicians currently participate in THOR / THOR-GP (as of March 2016). 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 362 actual, 1913 (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 2015

CATEGORY	DIAGNOSTIC GROUP	CLINICAL SPECIALISTS			OCCUPATIONAL PHYSICIANS			GENERAL PRACTITIONERS	
		Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	Estimated diagnoses	%	Actual diagnoses	%
RESPIRATORY DISEASE	Asthma	17	17	*4*	2	24	*33*	2	*100*
	ascribed to sensitisation	*15*	*15*	-	-	-	-	-	-
	ascribed to irritation/RADS	*2*	*2*	-	-	-	-	-	-
	Unspecified	*0*	*0*	-	-	-	-	-	-
	Inhalation accidents	0	0	*0*	0	0	*0*	0	*0*
	Allergic alveolitis	1	1	*<1*	0	0	*0*	0	*0*
	Bronchitis/emphysema	1	1	*<1*	0	0	*0*	0	*0*
	Infectious disease	0	0	*0*	0	0	*0*	0	*0*
	Non-malignant pleural disease	32	153	*36*	0	0	*0*	0	*0*
	predominantly plaques	*23*	*122*	-	-	-	-	-	-
	predominantly diffuse	*7*	*7*	-	-	-	-	-	-
	Unspecified/other	*4*	*26*	-	-	-	-	-	-
	Mesothelioma	15	92	*22*	0	0	*0*	0	*0*
	Lung cancer	4	37	*9*	0	0	*0*	0	*0*
	Pneumoconiosis	17	83	*19*	0	0	*0*	0	*0*
	Other	16	49	*11*	4	48	*67*	0	*0*
	Total diagnoses	**103**	**433**	**-**	**6**	**72**	**-**	**2**	**-**
	Total cases	**98**	**428**	***100***	**6**	**72**	***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	98	428	*67*	6	50	*100*	0	*0*
	Allergic	*29*	*29*	-	-	-	-	-	-
	Irritant	*46*	*46*	-	-	-	-	-	-
	Allergic and irritant	*21*	*21*	-	-	-	-	-	-
	Unspecified	4	4	-	-	-	-	-	-
	Contact urticaria	5	5	*1*	0	0	*0*	0	*0*
	Folliculitis/acne	0	0	*0*	0	0	*0*	0	*0*
	Infective	1	1	*<1*	0	0	*0*	0	*0*
	Mechanical	1	1	*<1*	0	0	*0*	0	*0*
	Nail	0	0	*0*	0	0	*0*	0	*0*
	Neoplasia	24	211	*33*	0	0	*0*	0	*0*
	Other	0	0	*0*	0	0	*0*	0	*0*
	Total diagnoses	**129**	**646**	**-**	**50**	**6**	**-**	**0**	**-**
	Total cases	**124**	**641**	***100***	**50**	**6**	***100***	**0**	***0***
MUSCULOSKELETAL	Hand/wrist/arm	**No case reports from clinical specialists**			9	53	*30*	6	*29*
	Elbow				1	12	*7*	1	*5*
	Shoulder				4	26	*15*	3	*14*
	Neck/thoracic spine				1	12	*7*	0	*0*
	Lumbar spine/trunk				6	61	*34*	8	*38*
	Hip/knee				0	0	*0*	2	*10*
	Ankle/foot				1	1	*1*	2	*10*
	Other				2	13	*7*	0	*0*
	Total diagnoses				**24**	**178**	**-**	**22**	**-**
	Total cases				**24**	**178**	***100***	**21**	***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**			25	190	*37*	3	*30*
	Post-traumatic stress disorder				1	12	*2*	0	*0*
	Other work-related stress				46	343	*66*	8	*80*
	Alcohol or drug abuse				1	12	*2*	0	*0*
	Psychotic episode				0	0	*0*	0	*0*
	Other				1	1	*<1*	1	*10*
	Total diagnoses				**74**	**558**	**-**	**12**	**-**
	Total cases				**69**	**520**	***100***	**10**	***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), such as a needlestick injury in a nurse and conjunctivitis in a welder which resulted from a metal fragment entering the patient's eye; these are relevant to the 'quarterly feature' below.

QUARTERLY FEATURE

WORK-RELATED INJURY

The majority of information included in these quarterly reports relates to work-related illness; however THOR also collects data on work-related injury, predominantly reported by OPs and GPs. The Health & Safety Executive (HSE) also collects information on work-related injury using two methods; RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) and through a self-reported work-related injury survey collected as part of the Labour Force Survey (LFS). RIDDOR relies on reports from employers and is known to have problems with under-reporting. According to the HSE's Annual Health & Safety Statistics (2014/2015) (1), information from the LFS survey shows that in recent years there has been a decline in non-fatal workplace injury, but this trend is now levelling off. These self-reported data show that incidence rates of work-related injury are highest in health and social care professionals and caring personal service occupations (2).

With both OPRA and THOR-GP cases, 21% were reported as work-related injuries. These exclude mental ill-health cases. There is argument that post-traumatic stress disorder (PTSD) should be classified as an injury, but for the purpose of this analysis psychological cases have been removed.

Figure 1 shows the proportion of cases reported as injury by occupational group. For 'protective service occupations' (including police, fire and military personnel) and 'transport and mobile machine drivers and operatives' (including train, HGV and fork-lift truck drivers), reports from OPs and GPs show that out of the cases reported, a much larger proportion are reported as injuries as opposed to work-related ill-health. The occupational groups of 'caring personal service occupations' and 'health and social care associate professionals' were also more frequently reported with injuries than the overall average.

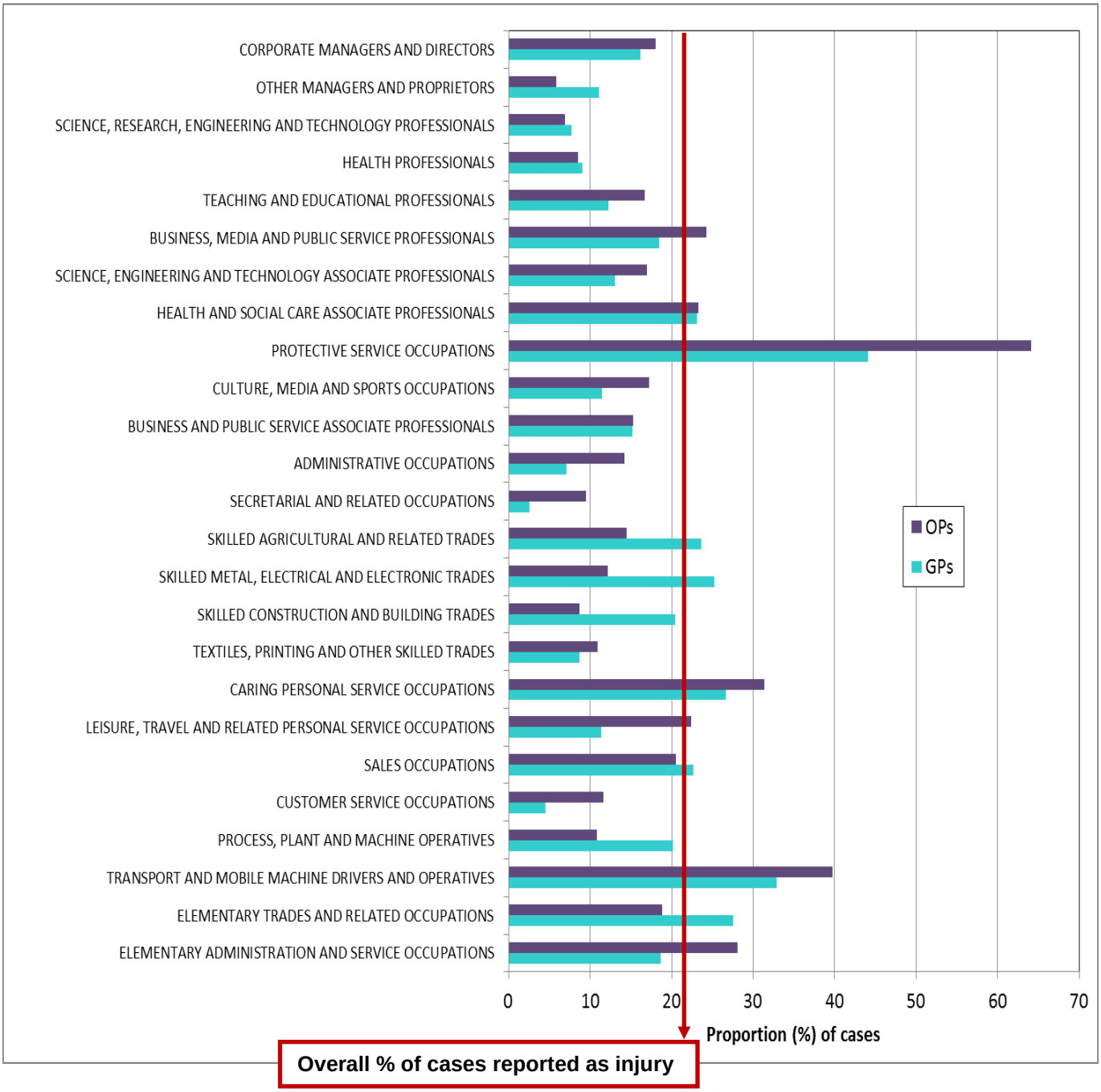
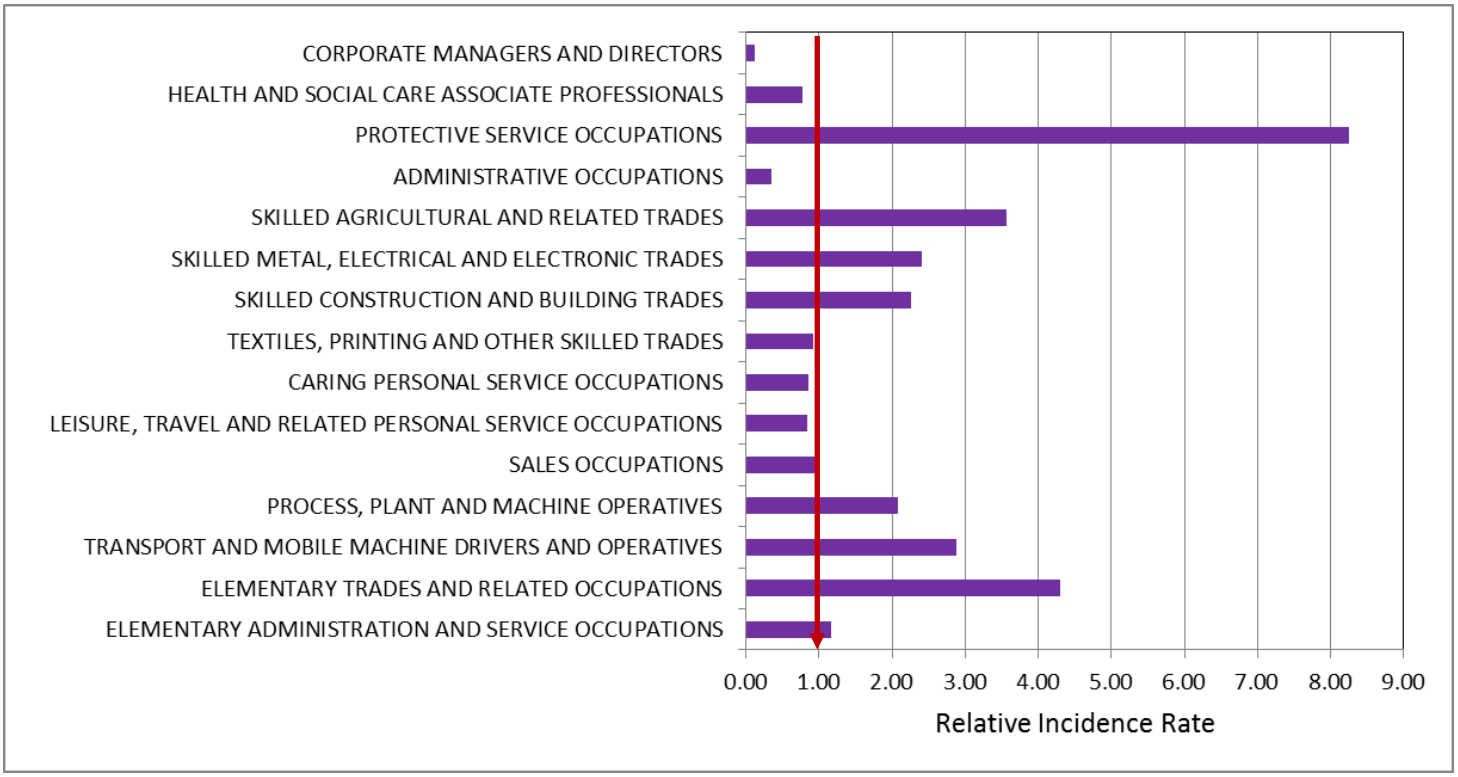


Figure 1. Proportion of cases reported as workplace injury by occupational group, OPRA and THOR-GP 2006 to 2015

This increased level of injuries reported in the 'protective service occupations' is also illustrated when incidence rates are calculated using data reported by GPs and shown relative to the rate of injury overall. Therefore, as illustrated in Figure 2, any occupational group that has a relative rate over 1 has a higher rate of work-related injury than the rate of all workers. Here, the rate for 'protective service occupations' is eight times higher than for all workers. Rates are also particularly increased for those workers within 'skilled agricultural and related trades' and 'elementary trades and related occupations'.



Only includes occupational groups with over 10 case reports

Figure 2. Incidence rate (relative to overall rate) of workplace injury by occupational group, THOR-GP 2006 to 2015

According to the data reported by GPs, when the reported case is classed as a 'workplace injury' rather than 'work-related ill-health' or an 'occupational disease' the patient is more likely to be issued with sickness certification. Between 2006 and 2015 (again not including cases of work-related mental ill-health), 64% of workplace injury cases were issued with sickness certification compared to 30% of work-related ill-health (Figure 3).

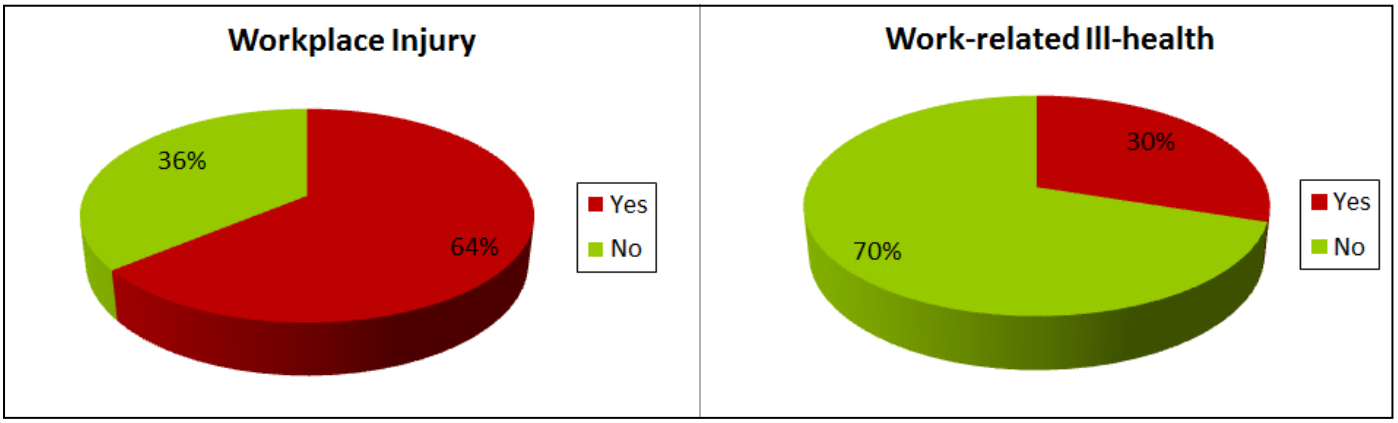


Figure 3. Proportion of cases of workplace injury and work-related ill-health issued with sickness absence certification, THOR-GP 2006 to 2015

Further information about the injury data reported to THOR has been published in a paper in Occupational Medicine; 'Workplace injury data reported by occupational physicians and general practitioners' (3). This paper provides detail, such as the nature of the accident as illustrated in Figure 4 below.

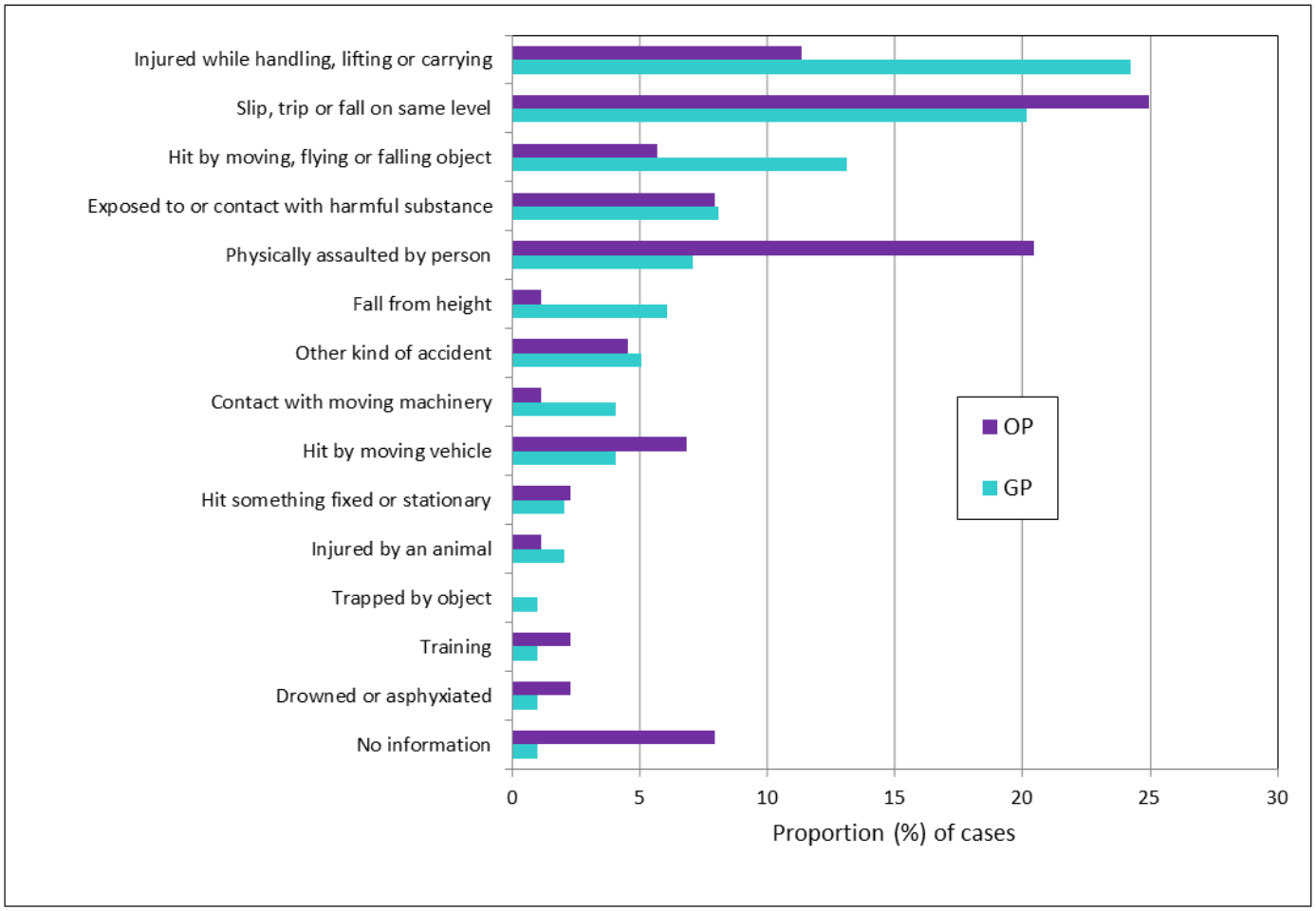


Figure 4. Nature of accident recorded in cases of workplace injury, OPRA and THOR-GP 2006 to 2012

References

1. The Health and Safety Executive, Health and Safety Statistics Annual Report for Great Britain 2014/2015 http://www.hse.gov.uk/Statistics/overall/hssh1415.pdf

2. Health and Safety Executive. Labour Force Survey – Self-reported work-related ill-health and workplace injuries. Index of tables 2014/15 http://www.hse.gov.uk/Statistics/lfs/index.htm#allinjuries

3. R. Jabbour, S. Turner, L Hussey, F Page, R Agius. Workplace injury data reported by occupational physicians and general practitioners. *Occupational Medicine*. 2015;65:296-302.

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

I was surprised to see that no cases were reported to THOR-GP this quarter. It seems likely that this is a one off blip but does prompt speculation as to other potential explanations. Recent European literature would suggest that both occupational contact dermatitis and asthma are declining across the continent with time (1). In contrast, noise-induced hearing loss, carpal tunnel syndrome and upper limb musculoskeletal disorders in 10 European countries show no consistent change.

The preventative measure I'm prone to forget when seeing a young patient with atopic eczema is advice on a suitable career. An informed choice at the outset hopefully avoiding the investment of time in a career that then proves unsuitable. The Centre for Occupational and Environmental Medicine at the Karolinska Institute in Sweden have produced an online resource for students with an English translation to help outline the pros and cons for those with a background of skin disease and an allergic/atopic tendency (2). In 2005, a Swedish population-based study followed-up people with childhood atopic dermatitis looking at the possible influence on their work life. The proportions of cases and controls in jobs with a high risk of hand eczema were similar, as was the exposure to water, detergents, chemicals, and hand washing. In summary, a history of atopic dermatitis in childhood did not seem to influence the choice of job nor hazardous occupational skin exposure – a call to improve careers advice. However, the self-reported cumulative prevalence of hand eczema was 42% for the cases and 13% for the controls ($P<0.001$). The one-year prevalence was 24% for the cases and 9% for the controls ($P<0.001$). Among the cases, 9% reported a change of job due to eczema compared with 2% of the controls ($P<0.001$). The corresponding proportions for sick leave were 10% and 2% ($P<0.001$). This confirms the increased risk for job change and sick leave, mainly due to the increased risk of hand eczema, of having childhood atopic eczema (3).

I was interested to see that this quarter ammonium persulphate caused more allergy (three cases) amongst the six hairdressers reported than the hair dye p-phenylenediamine (two cases). Ammonium persulphate is also interesting because in addition to causing contact allergy it is also a small chemical reported to cause allergic contact urticaria. Deaths from type I allergic reactions to hair dye, usually in consumers, are exceedingly rare but understandably generate much attention.

On a different tack the nursery nurse with occupationally acquired recurrent herpes simplex on the palm of the right hand had my sympathy. Classically herpetic whitlows develop on the tip of the digit in those with inadvertent contact with cold sores around the mouth such as dentists and anaesthetists.

Dr Mark Wilkinson
Leeds General Infirmary

References

1. 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. Stocks SJ, McNamee R, van der Molen HF et al. Occup Environ Med. 2015; 72: 294-303.

2. Work Healthy. Asthma, Eczema and Your Career. http://jobbafrisk.se/en/

3. Influence of childhood atopic dermatitis on future worklife. Nyrén M, Lindberg M, Stenberg B et al. Scand J Work Environ Health. 2005; 31: 474-8.

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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EPIDERM	Christina.O'Connor@manchester.ac.uk	0161 275 7103
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