

THOR ROI

The Health and Occupation Research network in the Republic of Ireland

Centre for Occupational and Environmental Health
The University of Manchester

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

Dr Melanie Carder, Dr Annemarie Money, & Prof Martie van Tongeren
December 2017

INTERIM REPORT, covering the period: July 2017 to September 2017

Dear colleague,

I would like to thank you for your support to the occupational disease reporting schemes. Because of your contributions, the schemes continue to generate useful information.

As you will be aware Professor Raymond Agius retired in September of this year, although he is still active in the field as Emeritus Professor. It is a great honour to follow in his footsteps as the Director of the Centre for Occupational and Environmental Health, and the Principal Investigator of THOR-ROI. Clearly, it will be very difficult to replace someone with the level of knowledge and expertise as Professor Agius. I will bring a different expertise to the team as my background is in occupational and environmental epidemiology and exposure assessment. To cover the occupational medicine expertise, we are in the process of adding an additional Occupational Physician to the THOR team. I am very confident that with these changes we will be able to continue the THOR-ROI scheme, as well as continue to explore opportunities for improvements and innovations.

One of the main challenges remains the recruitment of physicians to participate in the scheme in order to generate sufficient data reports to ensure continuing viability. In addition, as I am fully aware of the various time pressures that you have, we continue to work on ways to make your contribution to the schemes a worthwhile activity. One example of this is EELAB, and I would like to encourage GPs and OPs to use this facility which could earn you up to 5 CPD points, (CPD accredited by the Faculty of Occupational Medicine of the Royal College of Physicians, Ireland). We are working on extending EELAB for our clinical specialist schemes.

A number of the THOR team (Annemarie Money, Raymond Agius and I) will attend the ICOH Congress in Dublin next year. I would appreciate it if you could let me know if you are planning to attend too, as I would like to take the opportunity to meet with you in person.

I would like to wish you all a Merry Christmas and all the very best for 2018!

Yours sincerely



Martie van Tongeren
Professor of Occupational and Environmental Medicine

BACKGROUND

Chest physicians and dermatologists in the Republic of Ireland (ROI) have been reporting voluntarily to The Health and Occupation Research network (THOR-ROI) since January 2005, whilst occupational physicians have been reporting since January 2007, and general practitioners since 2015. The policy within all the THOR schemes is to work on a three month lag to enable thorough data cleaning procedures to be carried out. Therefore, this document provides a brief update of the cases reported during the period July to September 2017, inclusive. This report should not be viewed as a 'stand alone' document but as a supplement to previous interim quarterly reports and 'substantive' annual reports (the most recent of which was submitted in September 2017).

OVERVIEW OF CASE REPORTS

OPRA-ROI

The 27 occupational physicians currently reporting to OPRA-ROI returned a total of 24 case reports between July and September 2017 (total ever cases up to September 2017 = 1599). Figure 1 shows the proportion of work-related ill-health diagnoses reported by major diagnostic category.

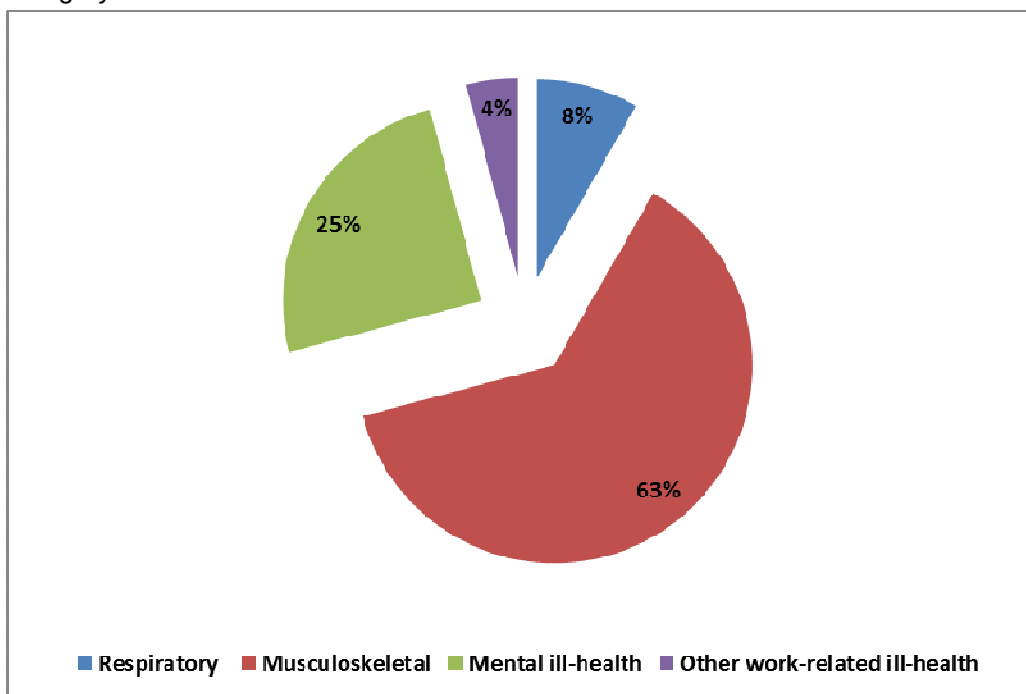


Figure 1 Proportion of work-related ill-health diagnoses reported by occupational physicians to OPRA-ROI by major diagnostic category (July – Sept 2017)

Cases were predominantly female (79%) and the age range (all cases) was 22 to 64 years (mean age = 49 years). 20/24 (83%) of the cases reported this quarter were employed in the health and social care sector, 2/24 cases (8%) in the retail (except motor vehicles) trade sector, and 1 case each were employed in the land transport sector and legal services sector. The occupations of reported cases from the health and social care sector this quarter included nurses, nursing auxiliaries and care assistants, catering assistants, cooks, human resources personnel and therapists.

OPs in ROI reported 15 cases of work-related musculoskeletal disorders this quarter; 5 cases related to upper limb disorders (3 shoulder; 2 hand/wrist/arm), 8 relating to neck / back disorders (6 back; 2 neck), and 2 cases relating to hip/knee disorders (2 knee). The tasks and movements associated with the musculoskeletal cases (as recorded by the physicians) included 'manual handling', accidents, twisting and pushing.

The cases reported under the mental ill-health category comprised 4 diagnoses of work-related stress, 1 diagnosis of adjustment disorder and 1 diagnosis of post-traumatic stress disorder. The precipitating events (as recorded by the physicians) associated with the mental ill-health cases included assault, bullying, lack of training in new role, work overload and management relationship and support issues.

OPs reported 2 cases of work-related respiratory disease this quarter, specified as 'acute respiratory irritation' and 'reactive airways with acute bronchial hyper-reactivity', the suspected agent for both cases was reported as chlorine disinfectant tablets.

In addition OPs reported 1 case of other work-related ill-health this quarter, a case of ear pain attributed to noise.

EPIDERM-ROI

The 13 dermatologists currently participating in EPIDERM-ROI reported 5 cases of work-related skin disease this quarter (total ever cases up to Sept 2017 = 465). All 5 cases were reported as contact dermatitis (all diagnosed as allergic) with 1 case having a co-diagnosis of nail dystrophy. Reported cases were employed in personal service activities (hairdressing and beauty (3 cases)), pharmaceutical manufacturing (1 case), and construction (1 case). Three of the five cases were females and the age range of all cases was 24 to 40 years. The suspected agents reported included thiuram, chromate, epoxy, acrylates, nickel sulphate, linalool, limonene, rubber gloves and antiseptic wipes.

SWORD-ROI

Four cases of work-related respiratory disease were reported by chest physicians during the third quarter of 2017. All cases were males with the following diagnoses: non-malignant pleural disease (2 cases – builders labourer and roofer, both attributed to asbestos), bronchitis and pneumoconiosis (coal miner attributed to coal, slate and oil mist) and 'other' work-related respiratory disease, diagnosed as nasopharyngeal malignancy (carpenter attributed to wood dust). In total (January 2005 to Sept 2017), the 12 chest physicians have reported 182 case reports.

THOR-GP-ROI

Twenty two general practitioners are currently enrolled in the scheme in ROI. In the third quarter of 2017, 7 cases of work-related ill-health were submitted (total cases reported since the scheme commenced in 2015 = 30), 57% of the 7 cases were males and the age range (all cases) was 31 to 62 years. The following diagnoses were reported: 4 musculoskeletal cases (all diagnosed as upper limb disorders), and 1 case each of mental ill-health (work-related stress and anxiety),

hearing problems (noise induced hearing loss) and 'other' work-related ill-health (foreign body in eye). The cases were employed in manufacture of food and beverages; electricity, gas and air conditioning supply; construction; retail trade (except motor vehicles); food and beverage service activities; computer programming; health and social care.

CASE OF THE QUARTER

If you have seen a case which you feel may be a potential "case of the quarter" we would ask you to summarise the information in about 250 words and send this to us. Important factors which we have to take into account include data protection, consent issues, and ethical considerations, so we need you to obtain the patient's consent to allow release of information before sending your case of the quarter to us. In addition, it is prudent to try to minimise the amount of personal data you provide (i.e. that which would allow identification of an individual) if at all possible.

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.

BECK REPORT

We highlighted some time ago the increasing number of cases of allergy to acrylate in nail technicians in an EPIDERM publication of 2014¹. The problem, however, persists with 7 (8%) of 90 cases reported to EPIDERM this quarter citing acrylate allergy amongst nail technicians. The UK is not alone in this fashion trend with cases being reported amongst workers and consumers throughout Europe^{2,3} and around the globe^{4,5}.

Technique in the application of acrylate nails is important in reducing the risk of exposure and subsequent sensitisation. In the UK, the Hair and Beauty Industry Authority (HABIA) produce a code of practice for the nail industry⁶ that was last updated in 2007. These state that 'non-latex (synthetic), powder free gloves are recommended to avoid allergic reactions' but fail to appreciate that, whilst avoiding type I latex allergy, acrylate monomers rapidly penetrate most glove types and laminate should ideally be worn although nitrile may provide short term protection⁷. HABIA outline the main occupational risks as musculoskeletal and respiratory. It would appear that there's an urgent need to update current guidance to keep up with the current fashion.

¹ Kwok C, Money A, Carder M, et al Cases of occupational dermatitis and asthma in beauticians that were reported to The Health and Occupation Research (THOR) network from 1996 to 2011. Clin Exp Dermatol 2014; 39: 590–5

² Raposo I, Lobo I, Amaro C et al. Allergic contact dermatitis caused by (meth)acrylates in nail cosmetic products in users and nail technicians – a 5-year study. Contact Dermatitis 2017; doi:10.1111/cod.12817

³ Gatica-Ortega ME, Pastor-Nieto MA, Mercader-García P, Silvestre-Salvador JF. Allergic contact dermatitis caused by (meth)acrylates in long-lasting nail polish – are we facing a new epidemic in the beauty industry? Contact Dermatitis 2017; doi:10.1111/cod.12827

⁴ Le Q, Cahill J, Palmer-Le A, Nixon R. The rising trend in allergic contact dermatitis to acrylic nail products. Australas J Dermatol. 2015; 56: 221-3.

⁵ Chou M, Dhingra N, Strugar TL. Contact Sensitization to Allergens in Nail Cosmetics. Dermatitis. 2017; 28: 231-240.

⁶ https://www.habia.org/PDF/standards-quals/Code_of_Practice_for_Nail_Services.pdf last accessed 21 Nov 2017

⁷ Ursberg A M, Bergendorff O, Thorsson A C, Isaksson M. Is there a good in vivo method to show whether gloves are sufficiently protective when a nail technician is exposed to (meth)acrylates? An in vivo pilot study. Contact Dermatitis 2016; 75: 62–65.

A more typical case of contact allergy to acrylates this month was from UV-cured acrylate chemicals used to print onto tin cans. UV is also used as a curing agent in the beauty industry. Typically, this may be either a UV lamp which emits a broad spectrum and if the cure time is long enough will leave little residual monomer. However, LED lamps are frequently used and emit a narrow UV spectrum. If the lamp is "mismatched" to the acrylate resin system used, this may result in a significant amount of uncured monomer remaining with a risk of sensitisation.

In March 2017, the Scientific Committee on Consumer Safety (SCCS) accepted a request from the EU to provide an opinion on the safety of 2 acrylates⁸ following an outbreak of allergic contact dermatitis amongst consumers using home cured nail varnish in Sweden⁹. Highlighting the risks, the Methacrylate Producers Association Inc state¹⁰ that various methacrylates in unreacted monomeric liquid form are not appropriate for use in artificial nail products. In particular, the skin sensitization properties of the esters indicate their use in such products should be restricted. It is to be hoped that a European framework to manage the risk will be soon in coming although what will happen in the UK if it's after March 2019 I'm not sure.

Sticking with industrial adhesives, epoxy resins were reported in 2 cases from the aircraft industry this quarter. In excluding contact allergy, it needs to be remembered to always test with a workers own samples as specific chemicals may be used as in the case of tetraglycidyl-4,4'-methylenedianiline (TGMDA) an aniline epoxy resin¹¹ used in aircraft manufacture - otherwise missed using our commercially available allergens.

The most unusual case of the quarter is perhaps the radiotherapy technician whose hands deteriorated when moulding a thermoplastic radiotherapy mask. A doubtful allergic reaction to phenol formaldehyde resin was reported but when investigating reactions to medical devices it can be frustrating that there is no ingredient labelling or legal requirement on the manufacturer to disclose the constituents. An impossible situation to resolve and for the worker to face!

Dr Mark Wilkinson, Consultant Dermatologist, Leeds General Infirmary

DISSEMINATION OF RESULTS

Raymond Agius, Emeritus Professor of Occupational and Environmental Medicine, was invited to speak at the FOM Smiley Symposium at the RCPI in Dublin, 17th November. In his talk entitled 'The benefits of physician participation in THOR (OPRA) research in Ireland', Professor Agius provided a detailed overview of the data reported to the schemes to date, and an overview of the Electronic Experiential Learning Audit & Benchmarking – EELAB - resource that OPRA-ROI and THOR-GP ROI reporters can access for CPD.

<http://www.population-health.manchester.ac.uk/epidemiology/COEH/eelab/>

⁸ https://ec.europa.eu/health/sites/health/files/scientific_committees/consumer_safety/docs/sccs2016_q_010.pdf last accessed 21 Nov 2017

⁹ Dahlin J, Berne B, Dunér K et al. Several cases of undesirable effects caused by methacrylate ultraviolet-curing nail polish for non-professional use. *Contact Dermatitis*. 2016; 75: 151-6.

¹⁰ http://static1.1.sqspcdn.com/static/f/1405676/22020353/1361810987690/artificial_nails2.pdf?token=cWtmzdlx2TN51PdQ1HtQ4t5SAGY%3D last accessed 21 Nov 2017

¹¹ Pesonen M, Suuronen K, Jolanki R et al. Occupational contact dermatitis caused by aniline epoxy resins in the aircraft industry. *Contact Dermatitis*. 2015; 73: 113-8.

REMINDER OF HOW WE CAN HELP YOU

We would again like to take this opportunity to encourage THOR-ROI reporters to contact us if they would like to present THOR-ROI or THOR-UK data at future meetings; simply email Annemarie.money@manchester.ac.uk

STAFF CHANGES / THOR CONTACTS

Christina O'Connor has left her role as Project Assistant for THOR-ROI to take up another position in the University; we wish her well in her new job.

We are in the process of replacing Christina, please see table 1 for details of who to contact in the interim period.

Table 1 THOR Contact details

SCHEME	email	Phone
EPIDERM-ROI SWORD-ROI	Susan.taylor@manchester.ac.uk	+44 (0)161 275 5531
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