Workers' Education and Prevention
The Australian Experience

Rosemary Nixon

BSc(Hons) MBBS MPH FACD FAFOEM

Clinical Associate Professor, Monash University and the University of Melbourne

Occupational Dermatology Research & Education Centre

Skin & Cancer Foundation, Carlton, Vic

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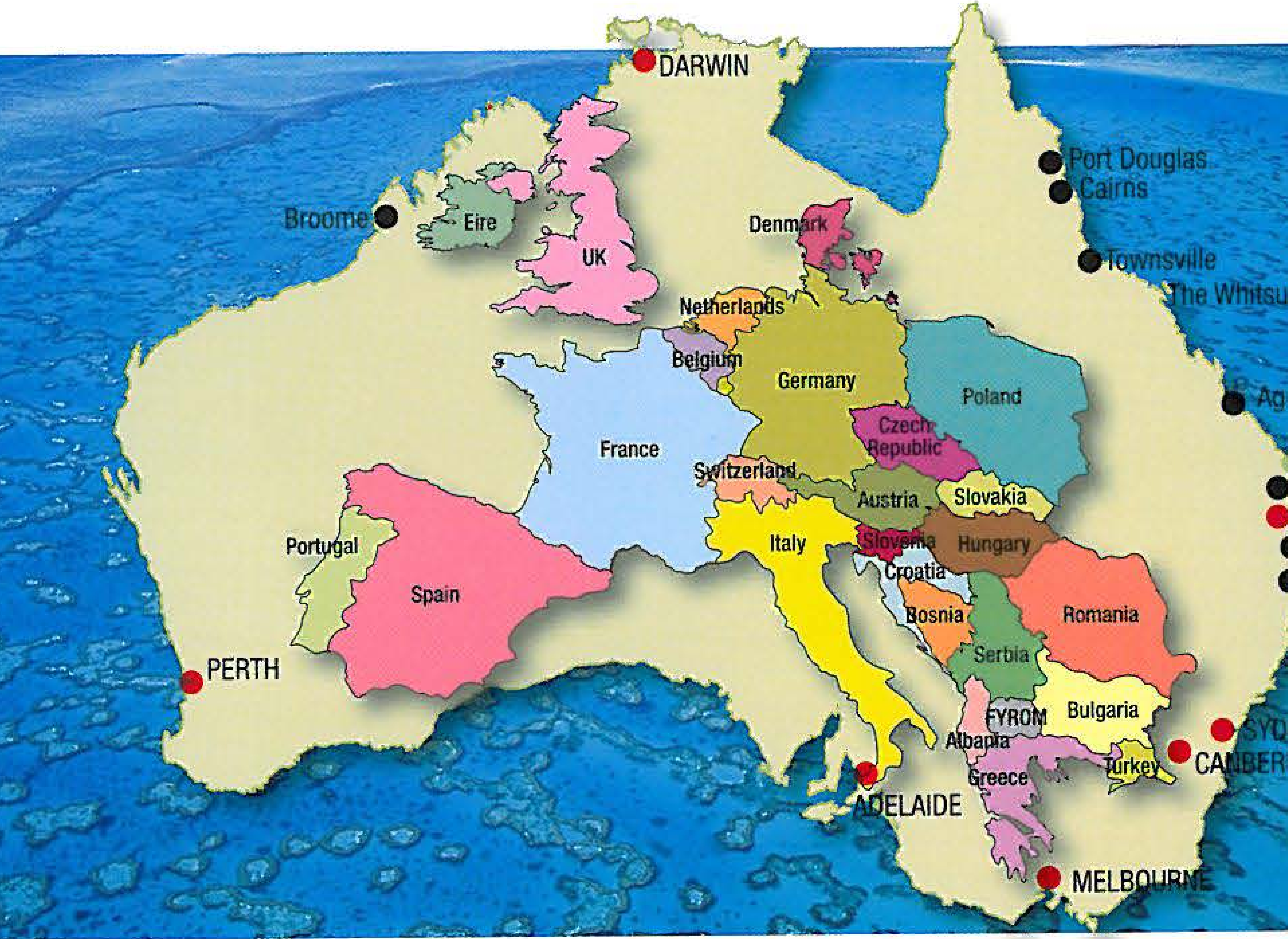
THE WORLD

Regulatory framework

- It’s a big country!
- 3 tiered system of government: federal, state, local councils
- National approach to occupational health and safety evolving in recent years but workers’ compensation system remains state-based
- No input from local government



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Role of Safe Work Australia

- Australian Government statutory agency established in 2009
- Primary responsibility of improving work health and safety and workers' compensation arrangements across Australia
- Original tripartite body with equal representation government, unions, industry National Occupational Health and Safety Council (NOHSC) December 1985
- Name and composition changes with different federal governments

National government body Safe Work Australia: Functions

- Develop national policy regarding occupational health and safety (OHS) and workers' compensation to ensure that a nationally consistent approach is taken to compliance and enforcement
- Prepare a model act and model regulations for OHS
- Prepare model codes of practice

Safe Work Australia: Functions (ii)

- Collect, analyse and publish data and/or research relating to OHS and workers' compensation to inform the development or evaluation of policies
- Revise and further develop the National OHS Strategy
- Develop and promote national strategies to raise awareness of OHS and workers' compensation
- International liaison-Globally Harmonising Chemicals

Australian Work Health and Safety Strategy 2012-2022

Reflects the principles that

- All workers have the right to a healthy and safe working environment
- Well designed, healthy and safe work leads to a more productive working life

Four outcomes

- Reduced incidence of work-related death, injury and illness *achieved by*
- Reduced exposure to hazards and risks *using*
- Improved hazard controls *supported by*
- An improved national work health and safety infrastructure

Seven action areas

- Healthy and safe by design- minimise hazards
- Supply chains and networks- commercial relationships to improve OHS
- Health and safety capabilities- improve
- Leadership and culture- promote positive culture

Action areas cont'd

- Research and evaluation- evidence-based policy, programs and practice
- Government- consider OHS in govt policy; use purchasing power to improve OHS
- Responsive and effective regulatory framework- legislation, policies and regulatory practice regularly reviewed

Strategic outcomes intended

- Reduction 20% number of worker fatalities due to injury
- Reduction 30% in incidence rate of claims resulting in one or more weeks off work
- Reduction of 3% in incidence of claims for musculoskeletal disorders resulting in one or more weeks off work

Good intentions but….

- No nickel regulation
- No ferrous sulphate added to cement
- We have still have the perming solution, glyceryl thioglycolate available
- We still have powdered latex gloves
- We now have an epidemic of methylisothiazolinone allergy…..

Consequences…..

- Low level of literacy re contact allergy
- In clinic ask about allergy to 'cheap jewellery' not nickel
- Low awareness of patch testing as compared to prick testing, even for doctors
- Historically low rates of patch testing in Australia: estimated rate of referral for patch testing nationally 191/million (optimal 1416)

- Tizi and Nixon, to be published
- Keegel T, Saunders H, Milne R, Sajjachareonpong P, Fletcher A, Nixon R (2004)Topical corticosteroid allergy in an urban Australian centre. Contact Dermatitis.50(1):6-14.

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Many Guidance Notes live on the Safe Work Australia website……

GUIDANCE ON
THE PREVENTION OF
DERMATITIS CAUSED
BY WET WORK

Australian Government
Australian Safety and Compensation Council

Occupational Dermatology
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Darwin
Brisbane
N.T.
QLD
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NSW
ACT
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Tas
Adelaide
Melbourne

Role of jurisdictions- Victorian WorkCover authority: Safety AND compensation (i)

- Help avoid workplace injuries occurring
- Enforce Victoria's occupational health and safety laws
- Provide reasonably priced workplace injury insurance for employers
- Manage the workers' compensation scheme: both service delivery and financial management (via insurance agents)

Role of jurisdictions- WorkSafe Victoria (ii)

- Help injured workers back into the workforce
- Employers pay levy for system administered by insurance companies
- This means that there is a big focus on claim numbers, which are declining
- It makes money for the state government!

Claiming workers' compensation

Successful claim requires

- Medical certificate

  Initial certificate can only last for 14 days off work; subsequent claims 28 days

- Claim form- employer
- Claim form- employee (Post Office, website)
- Worker has to submit workers' compensation claim themselves (with doctor, employer)
- Disadvantages those with poor literacy and life skills

This is an imperfect system and results in gross under-estimation of statistics on occupational disease

Rate of occupational dermatitis claims Victoria 6.5/100,000; incidence 20/100,000; prevalence 35/100,000 workers

Keegel T, Cahill J, Noonan A, Dharmage S, Saunders H, Frowen K, Nixon R. Incidence and prevalence rates for occupational contact dermatitis in an Australian suburban area. *Contact Dermatitis* 2005; 52:254-9.

Incidence rates of OCD diagnosed at our clinic per 100,000 employed persons per year, by occupational group in Victoria

Occ Derm Clinic,1993-2010, employment stats from 2001

Industry	No employed	Cases	Rate
Hair & beauty	15,191	191	69.8
Machine & plant operators	23,475	161	38.1
Healthcare workers	124,300	460	20.6
Automobile workers	28,729	92	17.8
Science	11,366	36	17.6
Engineering	29,582	76	14.3
Tradespersons,labourers	226,152	560	13.8

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National data-2005 to 2011

Numbers of serious workers' compensation claims for contact dermatitis (off work for > 4 weeks); incidence rate/million employees

	2005-06	06-07	07-08	08-09	09-10	10-11
Contact dermatitis: Caused by chemicals and other substance	280	235	215	210	160	150
Incidence rate: serious workers' compensation claims per million employees	30.55	24.76	22.06	21.25	15.82	14.37

Comments on national data

- Both raw numbers and incidence rates declined quite markedly from 2005-2011, with

  incidence rate down from 30.55 to 14.37/million

Why? Reporting- this should be standardised across time period

Are we exporting our occupational dermatitis ? More manufacturing is occurring offshore in China

May reflect increased awareness and improvements in OHS

Small study supported by Safe Work Australia

- To identify why workers are still developing occupational contact dermatitis (OCD) and occupational contact urticaria (OCU)
- To identify gaps in control measures, workplace training or work health and safety practices
- To identify targets for the development of evidence-based strategies to prevent OCD and OCU

Study population and design

- 44 consecutive workers attending the Occupational Dermatology Clinic diagnosed with occupational contact dermatitis
- After patch testing and completion of the diagnostic process, they participated in a investigator-administered questionnaire
- Employers (36; 8 self-employed) were also asked to participate in a questionnaire (29/36 responded)
- Explore reasons in the workplace for the development of skin conditions

Four key contributing factors to OCD and OCU identified

- Lack of education regarding skin hazards and appropriate protection
  - Exposure to known allergenic chemicals
  - Chemical spills
- Inadequate personal protective equipment
- Exposures to hard-to-avoid allergens in gloves and skincare products
- Inappropriate use of latex gloves

1. Lack of education regarding skin hazards

- Exposure to known allergens which should be preventable with improved awareness, education, engineering controls and appropriate personal protective equipment
- Chemical spills played a role in 9 cases

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Allergic contact dermatitis/contact urticaria to known allergens, avoidable with knowledge and appropriate protection (16)

- Latex (CU) 7
- Acrylates 5
- Epoxy resins 4
- Chromium 3
- Isocyanates 2
- P-phenylenediamine 2
- Other- ammonium persulphate, cobalt, PFR, thebaine (morphine derivative)

2. Inadequate personal protective equipment

- 17/44 (39%) assessed by clinician as inadequate
- Reasons included inappropriate PPE for task, lack of education, poor compliance despite education, PPE not supplied in one case
- Exposure to irritants was generally cumulative and to multiple irritants
- Only 4 cases of inappropriate exposure to irritants
- One case of severe ICD caused by a corrosive solvent new to workplace: safety data sheets were not consulted prior to introduction of new chemical

3. Exposures to hard-to-avoid allergens in gloves and skincare products (20)

- Caused more cases of ACD than known 'common' causes of ACD
- Contributed to by methylisothiazolinone (MI) epidemic
- Highlights importance of allergen substitution, even for weak allergens
- Co-existent ICD may have facilitated the development of sensitisation , especially in healthcare workers

Allergic contact dermatitis to a hard-to-avoid allergen (20)

- Rubber accelerator 7
- Ingredient of skincare product supplied at work
  - Isothiazolinones 8
  - Coconut diethanolamide 4
  - Chlorhexidine 2
  - Iodopropylbutylcarbamate 2
  - Other- CAPB, chloroacetamide, fragrance, lanolin, cinnamate in a sunscreen

4. Inappropriate use of latex gloves (7)

- Latex allergy is still prevalent in much of the world, as powdered disposable latex gloves are still available
- Now less likely to involve healthcare sector in Australia
- Workers involved: concretor (2), ink manufacturer, bike mechanic, hairdresser, lab worker, nurse
- 5/7 used latex gloves inappropriately

Specific recommendations arising from this study

- Supplement hand hygiene training in healthcare workers with information about skin care
- Decrease use of powdered, high protein disposable latex gloves
- Improved communication to workplaces regarding appropriate PPE
- Education re dermatitis prevention, especially for workers exposed to multiple skin irritants; also pre-work counselling for atopics
- Allergen substitution at all costs!

Specific recommendations arising from this study (ii)

- Avoid exposure to MI
- Improved training for nail technicians especially regarding nail products containing acrylates
- Hairdresser training with regard to hair dyes- ‘natural’ dyes may not be so
- Addition of ferrous sulphate to cement in Australia to reduce chromium levels
- Target top 3 occupational groups: tradespersons and labourers; healthcare workers; hair and beauty workers

Summary: in Australia

- Imperfect state workers' compensation schemes, with the onus on the workers to submit a claim, which underestimate the rates of occupational dermatitis
- At least worker s are able to claim rebates for medical consultations under Medicare, although theoretically not if they have a work related condition

Summary (ii)

- State authorities generally more focused on workers' compensation claims than OHS/research
- Compensation schemes are profitable for state governments

Summary (iii)

- In spite of lack of action from regulators, rates of ‘severe’ occupational contact dermatitis nationally declined from 2005-2011
- Reasons not known at present
- Considerable scope to improve prevention of occupational dermatitis and worker education, based on results from our study

In occupational dermatology we have a responsibility to the workplace….

- “By its nature, occupational dermatology is also related to occupational preventive medicine.
- “The ideal role of the medical practitioner involved in occupational dermatology is not only to diagnose and treat patients, but also to determine the aetiology of the occupational skin disease and to make recommendations for its prevention.”
- Boris Lushniak, Derm Clinics 2004

When we diagnose occupational contact dermatitis, we should reflect on the factors which caused it and how we can prevent future cases

rnixon@occderm.asn.au

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