Development and Implementation of European Standards on Prevention of Occupational Skin diseases (StanDerm)

Giménez-Arnau A & Alfonso JH, on behalf of the Working Group 2
What’s the challenge?

European Standards on
Diagnosis,
Management,
Prevention,
of Occupational Skin diseases
COST is supported by the EU Framework Programme Horizon 2020

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What’s “standard”?

Written definition, limit, or rule, approved and monitored for compliance by an authoritative agency or professional or recognized body as a minimum acceptable benchmark.
Method

Consensus among experts within occupational dermatology was achieved with regard to the definition of minimum evidence-based standards on prevention and management of WRSD/OSD.
StanDerm workshops/WG meetings took place:

- Berlin, 19-20 September 2013
- Bern, 7-8 April 2014
- Amsterdam, 6-7 October 2014
- Copenhagen, 5-6 October 2015
- Krakow, 12-13 October 2016

WG 2 meetings:

- January 2015, Barcelona
- February 2015, Triest
- February 2016, Barcelona
Minimum Standards on Prevention, Diagnosis and Treatment of Occupational and Work-Related Skin Diseases in Europe – position paper of the COST Action StanDerm (TD 1206)

Alfonso, Jose Hernan: Norway  
Bauer, Andrea: Germany  
Bensefa-Colas L: France  
Boman, Anders: Sweden  
Bubas, Marija: Croatia  
Constandt, Godelieve: Belgium  
Crepy, Marie-Noelle: France  
Giménez-Arnau, Ana M: Spain  
Goncalo, Margarida: Portugal  
Macan, Jelena: Croatia  
Mahler, Vera: Germany  
Mijakoski, Dragan: Macedonia  
Ramada Rodilla, Jose Maria: Spain  
Rustemeyer, Thomas: The Netherlands  
Spring, Philipp: Switzerland  
Swen Malte, John: Germany  
Wolfgang Uter: Germany  
Wilkinson, Mark: UK

JEDAV, 2017 (in press)
• Introduction and methodology
• Definition of work-related skin disease WRSD and OSD
• Classification of WRSD and OSD
• Diagnosis of WRSD and OSD
• Assessment of occupational exposure
• Reporting of WRSD and OSD
• Treatment of OSD and WRSD: a focus on chronic hand dermatitis (CHD) and work-related skin cancer (WRSC)
• Prevention strategies for OSD and WRSD: a focus on CHD and WRSC
• Unmet needs in prevention, diagnosis and treatment of occupational and work-related skin diseases in Europe
Definition of work-related skin disease WRSD and OSD

Work-related as well as occupational diseases comprise entities/conditions with an occupational contribution.

However, occupational diseases are additionally defined by diverging national legal definitions. These definitions have an impact on prevention, management and compensation.

JEADV, 2017 (in press)
Classification of WRSD and OSD

The implementation of the proposed ICD-11 classification of WRSD/OSD is recommended. It will enable a comprehensive identification of WRSD/OSD and thereby valid surveillance.

JEADV, 2017 (in press)
Classification of WRSD and OSD

- **Occupational contact dermatitis, contact urticaria and allergy**
  - Occupational allergic contact dermatitis
  - Occupational photo-allergic contact dermatitis
  - Occupational protein contact dermatitis
  - Allergic contact sensitization due to occupational exposure to allergen
  - Occupational irritant contact dermatitis
  - Occupational contact dermatitis
  - Occupational contact urticaria

- Exacerbation of constitutional dermatitis due to occupation
- Skin injury due to occupational exposure to corrosive substances
- Occupational phototoxic reactions to skin contact with exogenous photoactive agents
- Occupational acne and folliculitis
- Cutaneous vascular disorders caused or exacerbated by occupation
- Occupationally-acquired dermatoses due to exposure to cold or heat
- Occupationally-acquired skin infections and infestations
- Skin manifestations of work-related poisoning
- Occupationally-acquired disorders of skin pigmentation
- Miscellaneous occupationally-acquired skin disorders
- Occupational skin cancer

*JEADV, 2017 (in press)*
Diagnosis of WRSD and OSD

**Key message 1:** Comprehensive and early diagnosis is key for prevention and management.

**Key message 2:** The diagnosis of WRSD/OSD should be based on existing guidelines and should include a multi-disciplinary approach.

**Key message 3:** Patch testing is essential if contact dermatitis persists longer than 3 months or relapses.

JEADV, 2017 (in press)
COST is supported by the EU Framework Programme Horizon 2020

Development and Implementation of European Standards on Prevention of Occupational Skin Diseases

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Assessment of occupational exposure

**Key message 1:** Workplace exposure assessment is an essential part of the assessment and management of patients with WRSD/OSD.

**Key message 2:** Minimum requirements for workplace exposure assessment in diagnosis of WRSD/OSD include worker's medical and occupational history, physical examination and product labels/material safety data sheets assessment.

**Key message 3:** Full labeling of product ingredients should be made mandatory on MSDS in Europe.
Reporting of WRSD and OSD

Key message 1: Current registries are usually incomplete. Accurate and complete reporting is important for monitoring and effective allocation of resources.

Key message 2: Reporting procedures should be transparent, simple and easily accessible to provide optimal care for affected workers. They contribute to preventing chronic and relapsing disease courses.

Key message 3: The investment in reporting systems offers a substantial reduction of cost related to medical care, retraining and compensation.

JEADV, 2017 (in press)
Treatment of OSD and WRSD: a focus on chronic hand dermatitis (CHD) and work-related skin cancer (WRSC)

**Key message 1:** The therapeutic treatment of work-related chronic hand dermatitis and skin cancers does not differ from the corresponding non work-related dermatosis. In addition, avoidance of the trigger factors as e.g. skin contact with irritants and allergens or sun exposure at the workplace, by technical and/or organizational measures is essential.

**Key message 2:** The use of available guidelines for treatment of chronic hand dermatitis and non-melanoma skin cancers is recommended.

*JEADV, 2017 (in press)*
Prevention strategies for OSD and WRSD: a focus on CHD and WRSC

**Key message 1**: The aim of primary prevention is maintaining a worker healthy by creating safe workplaces. This includes risk assessment and early intervention.

**Key message 2**: The aim of secondary prevention is to avoid disease chronicity and/or progression by early diagnosis and intervention.

**Key message 3**: The aim of tertiary prevention is medical and occupational rehabilitation of workers with an established disease.

**Key message 4**: Minimum requirements for the prevention of work-related/occupational hand dermatitis and occupational skin cancer include regular use of personal protective equipment and regular provision of health and safety information in vocational schools and workplaces.

*JEADV, 2017 (in press)*
Occupational airborne contact dermatitis from sporadic exposure to tetrazepam during machine maintenance. Contact Dermatitis 2005; 52: 173-174
Delphi method

Assessment of differences in the management of WRSD and OSD between European countries

Definition of minimum standards for prevention and management of WRSD/OSD.
Identification of unmet needs and perspectives for future research

Consensus between dermatologists, occupational physicians and health education professionals

Response frequency (First round): 91%
Response frequency (Second round): 96.5%
Response frequency (Third round): 98%

JEADV, 2017 (in press)
Primary prevention
Preventative policies
- Safety at work legislation
- Substitution, technical and organisational measures
- Personal protective equipment
- Pre-employment counselling
- Focus on high-risk occupations
- Education

Secondary prevention
Reduce disease impact -
- Early detection: screening
- Substitution
- Technical and organisational measures at the workplace
- Education
- Personal protective equipment

Reporting/Notification
to relevant organisation
- Surveillance
- Initiate preventive actions
- Evaluate efficacy of prevention

Healthy worker
Worker with skin problems

Diagnosis
- Workplace exposure assessment.
- Skin test:
  - Patch testing
  - Prick testing
  - Others
- Biopsy

Work-related/Occupational skin disease

Tertiary prevention
- Treatment
- Education
- Exposure control (work and leisure time)
- Rehabilitation

Return to work
Unmet needs in prevention, diagnosis and treatment of occupational and work-related skin diseases in Europe

Research (4)
Assess true epidemiology of OSD (occupational contact dermatitis and work-related skin cancer, respectively) in population-based studies at European level

Knowledge Transfer (5)
Increase communication between the different stakeholders (dermatologists, occupational physicians, general practitioners, employers, workers, insurances)

Legal action/socio-political approach (9)
Ideally, full labeling of ingredients of products independently of concentration to improve completeness and accuracy of information in MSDS

Harmonization/Global approach (3)
Implementation of ICD-11

JEADV, 2017 (in press)
Conclusion

The timely implementation of minimum common standards for prevention of WRSD/OSD would significantly contribute to reduce the economic burden caused by loss of productivity and help reduce the needless suffering of so many affected workers.

JEADV, 2017 (in press)
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