

WG3

EUROPEAN INTERVENTION STUDIES

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Occupational Skin Diseases (OSD)

- Occupational skin diseases (OSD) are a global problem
- The approach to OSD differs between countries due to different national legal situations, insurance and health care systems and awareness of the issue



Step-wise approach to OSD

Primary = Prevention

**Secondary = Early recognition/
Intervention**

**Tertiary = Rehabilitation/
Reducing disability**



initial/moderate cases



severe cases



Prevention of OSD

- Relevant risk factors at work need to be detected and preferably eliminated, replaced or diminished
- If complete avoidance of exposure to hazardous substances is not possible, personal protective measures are indicated (e.g. gloves, barrier creams, moisturizers)



Prevention of OSD

- A common problem in affected individuals or individuals at risk is the lack of knowledge regarding causes of OSD and use of personal skin protection
- Therefore, prevention programmes focusing on specific teaching about skin care and protection (“workers’ education”) have been established in some countries

Skin protection seminar: „workers' education“



Background

- The development of common evidence-based standards relies on studies evaluating the effectiveness of prevention measures
- It is important to know if they e.g.
 - reduce occurrence of OSD
 - improve adherence
 - improve clinical outcomes
 - are cost-effective

Background

- Several studies have already been conducted
- Preventive initiatives in selected risk professions are effective on the level of primary, secondary and tertiary prevention

Selection:

Held E et al. Contact Dermatitis, 2001, 44:297-303
Held E et al. Occup Environ Med, 2002, 59:556-561
Schurer et al. Int Arch Occup Environ Health, 2005, 78:149-57
Löffler H et al. Contact Dermatitis, 2006, 54:202-209
Skudlik, C. et al. Int Arch Occup Environ Health, 2008, 81:1059-64
Apfelbacher CJ et al. Contact Dermatitis, 2009, 60:144-9
Dulon, M. et al. Br J Dermatol, 2009, 161:337-44
Kutting, B. et al. Br J Dermatol, 2010, 162: 362-70
Malkonen, T. et al. Br J Dermatol, 2010, 163:999-1006
Wulfhorst, B. et al. Int Arch Occup Environ Health, 2010, 83:165-7.
Wilke, A. et al. Contact Dermatitis, 2011, 66:79-86
Skudlik, C. et al. Contact Dermatitis, 2012, 66:140-7
Bregnhøj, A. et al. Occup Environ Med, 2012, 69(5):310-6

Background

Raising awareness, early dermatological interventions and specific teaching (“workers’ education”) were shown to be pivotal for the success of these prevention activities.

Wulfhorst, B. et al. in *Contact Dermatitis*, 2011, Springer: Berlin, Heidelberg. p. 985-1028.

Agner, T. and Held, E., *Skin protection programmes*. *Contact Dermatitis*, 2002. 47(5): p. 253-6.

Background

However, the effectiveness of preventive measures is poorly validated.

van Gils RF et al., *Effectiveness of prevention programmes for hand dermatitis: a systematic review of the literature.*

Contact Dermatitis, 2011. 64(2): p. 63-72.

Bauer A. et al. *Interventions for preventing occupational irritant hand dermatitis.*

Cochrane Database Syst Rev, 2010(6): p. CD004414.

Points of criticism

- Limited number of randomised controlled trials
- Only moderate evidence for the effect of prevention programmes on lowering occurrence and improving adherence
- Only low evidence for the effect on improving clinical and self-reported outcomes
- Lack of information about long-term effectiveness and cost-effectiveness
- Insufficient consideration of inter-individual differences in susceptibility

Points of criticism

- Recommendations for personal skin protection are lacking a sufficient evidence-base and are controversial
- Lack of accepted standards to objectify effectiveness of personal protective equipment
- Results of experimental studies do not correspond with real workplace situations

Difficulties

- No-intervention control groups are often not constituted for legal and ethical reasons.
- Often, singular effects of the various components of intervention cannot be separately assessed as they are usually implemented as a composite program.

Conclusion

More long-term intervention
studies are needed.

StanDerm

- Provides access to well characterised cohorts from high-risk professions across Europe
- Offers the unique opportunity to combine the complementary expertise of the participating centers
- STSM could provide basis for transfer of already existing prevention strategies

Objectives of WG3

- Set up of randomised controlled intervention studies in various high risk professions to evaluate:
 - the effectiveness and feasibility of prevention strategies
 - transferability of already existing national approaches to other countries
 - links between prevention and outcomes as well as cost-effectiveness
 - if intervention can reduce the prevalence or severity of OSD even in highly susceptible individuals (link to WG1)

Objectives of WG3

- Set up of field studies and experimental studies to develop standardised methods
 - to objectify the effectiveness of gloves, protective creams, emollients, skin cleansers and other personal protective equipment
 - to quantify hazardous substances deposited on the skin

Objectives

The results will contribute to the development of evidence-based common European standards on the prevention of OSD (link to WG2).

Target groups

- Employees in high risk professions
- Employers' and employees' professional associations
- Vocational schools/apprentices
- Social partners and insurances
- Manufacturers of e.g. personal protective equipment

Discussion today

- Focus on specific risk profession(s)
- Evaluation of primary, secondary or tertiary prevention measures
- National approaches and experiences => transferability to other countries?
- National differences and their impact on intervention studies

Suggestions of WG3 members

- Special interest in:
 - hairdressers
 - health care workers
 - others?

Thank you for your attention!

