Occupational skin diseases (OSD): current research and prevention activities in Europe

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Occupational Skin Diseases (OSD)

- up to 35% of all occupational diseases in Europe
- Point prevalence: > 20% in risk professions, e.g. hairdressers, health care, metal industry
- Poor prognosis, often chronic

Contact dermatitis (CD)
- Irritant CD (80%)
- Allergic CD

Diagnostics challenging!

Sare et al. 2014
Importance of skin barrier in ICD

- Barrier damage
- Stratum Corneum
- Water
- Irritants

Visibility threshold

Barrier damage

Time

Malten, 1981
Individual risk factors for ICD

FLG = carriers of filaggrin mutations
AD = atopic dermatitis

Visser et al., 2014
Guidelines OCD in the Netherlands

Pre-employment medical examination

1. Moderate to severe AD + hand eczema in the past ➔ Advice not to enter a high risk job

2. AD: advised to reduce exposure, follow up each 3 months in the 1st year and each 6 months in the 2nd year

Counselling about avoiding high risk occupations should be given at an early age (before entering training for a high risk job)
Non-melanoma skin cancer

130 SED/year

1 SED=standard erythemal dose

(Unverricht, Knuschke et al. 2006)
Squamous cell carcinoma

Outdoorworkers’ risk compared to average population: increased by 80%

In Germany over 2.5 million employees have an increased risk of skin cancer due to their occupational exposure to natural UV-irradiation.
c) Nach Nummer 5102 wird folgende Nummer 5103 eingefügt:

„5103 Plattenepithelkarzinome oder multiple aktinische Keratosen der Haut durch natürliche UV-Strahlung“.

“Squamous cell carcinoma or multiple actinic keratosis of the skin by natural UV radiation”

Expected 20,000 notifications /yr
Prevention of OSD: priority for occupational safety and health research

"Skin diseases are one of the most important emerging risks related to the exposure to, and extensive use of, chemicals..."
Pan-European research network

"Development and Implementation of European Standards on Prevention of Occupational Skin Diseases"
Chair: SM John; Vice-chair: S Kezic
130 experts from 28 Countries

WG 1. Etiology and susceptibility
   WG 2: Development of common European standards

WG 3: Intervention studies

WG 4: Surveillance, risk assessment and allergens

WG 5: Knowledge dissemination
WG 1. Etiology and susceptibility

Joint projects
Diagnostics of ICD & ACD (NL, HR, DK, DE)

Efficacy of hand creams for skin care (NL, HR, DK, DE)

Biomarkers of individual susceptibility (DK, NL, HR, DE)
WG 1. Etiology and susceptibility
   WG 2: Development of common European standards

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WG 5: Knowledge dissemination

Healthy Workplaces
Working together for risk prevention

OFFICIAL
PARTNER
EU OSHA
World Congress Occupational Health 27 August 2014 Frankfurt

WHO HG Geneva, Advisory Committee 5 June 2014

DG EMPL3 Luxembourg 8 July 2014

WHO, EU Commission Contractor 13 May 2014, Bucharest. Pressconference

COST StanDerm Amsterdam 6-7 Oct Amsterdam

Zagreb 9 May 2014

COST StanDerm 24 June 2014

30 Nov. 2011, EU Parliament, Brussels

3m²
Message to all stakeholders:

- Prevention of OSD is:
  - Ethical
  - Legal
  - Logical
  - Economical
Thank you!