levels of natural moisturising factor and cytokines. Questionnaires will be used to investigate the exposure to skin hazards, protective behaviour and knowledge on prevention of OCD. The skin condition of the hands will be assessed by regular clinical examinations and questionnaires. In addition, the same genetic and phenotypic biomarkers will be analysed in a cohort of metal workers affected by OCD. The primary objective is to evaluate if health education is effective in prevention of OCD in metal apprentices. Moreover, the value of different biomarkers to identify individuals at risk for OCD will be assessed.

Results The design of the study and its first results will be presented at the meeting.

Discussion Health education has been shown to be an important key in prevention of OCD. However, intervention studies are necessary to evaluate and improve preventive programmes based on health education. Biomarkers may help to identify individuals at risk and to develop targeted strategies to reduce the burden of OCD.

CORRELATING BIOLOGICAL MONITORING FOR PLATINUM WITH DERMAL AND RESPIRATORY EXPOSURE

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Introduction Occupational respiratory exposure to platinum is well established in precious metals refineries (PMR). Soluble platinum causes respiratory sensitisation leading to amongst others occupational asthma and rhinitis. However, several skin symptoms have been reported and the relationship between skin exposure and uptake determined in urine has not been investigated.

Objectives To evaluate the dermal and respiratory exposure of PMR workers to soluble platinum, and to quantify the absorbed platinum concentration excreted via the urine.

Methods Dermal exposure samples were collected on the dominant palm, wrist, neck and forehead using Ghostwipes. Respiratory samples were collected using an Institute of Occupational Medicine inhalable aerosol sampler. Wipe and respiratory samples were analysed according to the MDHS 46/2 using inductively coupled plasma-mass spectrometry. The dermal and respiratory exposures of workers from different production areas in two PMRs were measured simultaneously on two consecutive days. Urine samples were collected for analysis of epidermal levels of Natural Moisturising Factor (NMF), as an early biomarker of skin barrier damage. All participants completed questionnaires regarding exposure to wet work and skin protective behaviour during the study period.

Results The design of the study and a summary of the main results will be presented at the session.

Discussion The concentration platinum in the urine of workers is determined by both the dermal and respiratory exposure routes. The skin is as a route of exposure to soluble platinum should be considered.