published epidemiological studies among more than 30 000 hardmetal and cobalt production workers do not provide any evidence for carcinogenicity in humans at exposures in the range from 10–100 μg/m³ - between the tolerable concentration based on animal data and the concentration used in the animal experiments. The implications for risk assessment will be discussed also taking into account additional epidemiological data addressing potential inflammatory or fibrogenic effects with impairment of lung function at higher workplace exposures. Copper is another compound for which in Germany a limit value has been proposed by the MAK (maximal workplace concentration) commission based on animal data. Based on a 28 day rat inhalation study with copper(I) oxide which demonstrated inflammatory effects at concentrations starting around 200 μg/m³ a MAK value of 10 μg/m³ (respirable fraction) has been derived. However, copper has been used at workplaces for centuries at concentrations even in the mg range without observation of clear health effects. Potential explanations for these discrepancies as well as requirements of additional health data will be presented.

P.1.32 COMPARISONS OF THE RESULTS FROM ERGONOMIC TOOLS BETWEEN RAPID ENTIRE BODY ASSESSMENT AND QUICK EXPOSURE CHECK IN A STEEL FACTORY

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10.1136/OEM-2019-EPI.233

Conducting ergonomic risk assessment is important as it helps employers identify the significant risks in their workplace and will resulting in adequate preventive measures. Simpler observational techniques is one of the types of ergonomic evaluation tools which is commonly used. It is practical, user-friendly and gathering information from both employees and practitioners. This paper presents comparisons between two observational ergonomics tools for determining ergonomics risk factors for work-related musculoskeletal disorders. The Rapid Entire Body Assessment (REBA) and Quick Exposure Check (QEC) were used to assess 296 employees participating in the study from all 12 sections which involved different work tasks in a steel factory. The results are compared using three risk categories (low, moderate, high). Standardised Nordic questionnaires was also used for evaluating the musculoskeletal disorders and effects on working. Data were gathered using questionnaires and evaluations taken at workstation. The findings show the results analyzed using weighted kappa statistic and prevalence of musculoskeletal disorders among workers.

P.1.36 OCCUPATIONAL COHORT STUDIES: SAFEGUARDING A VALUABLE RESOURCE

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10.1136/OEM-2019-EPI.234

An occupational cohort study is the most robust epidemiological design for studying the effects of workplace hazards and the findings can be extended to the general environment. A cohort may be time-consuming, expensive, and labour-intensive to set up but, once done, it can be extended forward in time, as well as laterally to incorporate new outcome variables, and it can also support nested case-control studies. It is therefore important that the human and material investment is preserved so that these valuable resources can be fully exploited.

In recent years, the bureaucratic burden on researchers in many countries has increased. In the UK, for example, research ethics, data protection, and data access application procedures have become more cumbersome, with an increase in the number of supporting documents required from researchers. Although fast-track procedures exist, epidemiological studies often require the same formal procedures and oversights as more invasive and potentially dangerous physiological and pharmacological studies.

Fortunately, there are now initiatives which support occupational cohort studies. The UK Medical Research Council (MRC), for example, published in 2014 a review and guidance about maximising the value of UK population cohorts and it has also set up a Cohort Strategic Review Group to pre-assess funding applications for new cohorts and for updates to existing cohorts (http://mrc.ukri.org). As another example, OMEGA-NET has been set up to 'create a network to optimize and integrate occupational, industrial, and population cohorts at the European level' (http://omeganet-cohorts.eu/).

We propose that a checklist be defined for assessment of research protocols for new cohorts or updates to existing cohorts, in order to assist official committees in their work and streamline the approval process for both researchers and committees. EPICOH would be well-placed to draft and promulgate such a checklist, working with interested organisations, such as OMEGA-NET and the UK MRC.

P.1.37 A STUDY OF THE INCIDENCE RATE AND RISK FACTORS OF METABOLIC SYNDROME AMONG WORKERS OF DIFFERENT JOB CATEGORIES IN TAIWAN

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10.1136/OEM-2019-EPI.235

Background In Taiwan, the prevalence of metabolic syndrome among people over the age of 20 years is as high as 19.7%. With the increase in age, the prevalence of metabolic syndrome is even higher, with the prevalence being more than 30 years among those aged 45–65 years. Notably, very limited follow-up studies have examined the incidence and risk factors of metabolic syndrome among workers of different job categories in Taiwan.

Methods We conducted a retrospective follow-up study that included 6,284 Taiwanese subjects who had been working in the same job category for 5 years and who received periodic health checkups at a regional hospital from 2006 to 2017 to better understand the incidence rate and risk factors of metabolic syndrome in Taiwan. All participants' demographic data and health examination data were then analyzed. Metabolic syndrome was diagnosed according to the criteria proposd by