Objective: Musculoskeletal symptoms are a common cause of disability, with major impact on workforce wellbeing, absenteeism and productivity. Several, mainly cross-sectional, studies have linked such symptoms to physical workload, and also to psychological and socio-cultural factors.

We investigated whether prolonged or increasing job strain, tendency to somatise and other individual characteristics, are associated with worsening musculoskeletal pain.

Method: As part of the CUPID study, we investigated a cohort of nurses employed on medical wards at the Varese University Hospitals (Italy). Participants were asked, at baseline and after one year of follow-up, about individual and occupational risk factors, psychological characteristics (including tendency to somatise), occupational strain (by Siegrist’s Effort/Reward Imbalance Questionnaire-ERI), and musculoskeletal symptoms. Associations of worsening musculoskeletal pain with perceived job strain were assessed by multivariate log-binomial regression.

Result: Occupational stress was associated with pain in the lower back (LBP) and neck/shoulder (NSP) in both cross-sectional questionnaires. Comparing baseline and follow-up answers, workers who reported an increase in perceived stress showed more frequent worsening of both LBP (prevalence of worsening symptoms=41%, OR when compared with not stressed=1.7, 95% CI=1.1–2.7) and NSP (prevalence of worsening=51%, OR=1.2, 95% CI=0.8–3.2 for NSP).

Conclusion: Our observation suggests that tendency to somatise modifies individual responses to “triggering exposures”, such as psychological workload, with important implications for the health, and productivity of workers.
standardised interview. Gender, age, residence area and smoking were collected as potential confounders. Multivariate logistic regression was applied.

Results Considering all tumours together, we observed large increased risks for wood exposure (OR = 6.9, 95% CI = 3.0–16.3) and leather (prevalence 24% in tumours, 0% among controls) only. Compared to controls, we observed an increased risk for wood exposure [OR = 7.7 (95% CI = 2.6–22.5)] in ITAC cases, but not in non-ITAC cases [OR = 0.8 (95% CI = 0.2–3.1)]. Prevalence of leather exposure was 42% among ITAC and 6% in non-ITAC.

Conclusions Our case control study confirmed that ITAC cases but not other histotypes were strongly related to occupational exposures, and in particular to leather and wood dusts. Grouping together all SNC types reduce the causal role of occupation exposures. Larger samples size are needed to investigate other work-related carcinogens.