occurrence of occupational accidents was determined using multivariate logistic regression analyses. Multivariate analyses were adjusted for age, gender, marital status, children (yes/no), job title, multiple employers (yes/no) and the number of flights flown during 2005–2008.
Results In 2009, 289 accidents were reported. Multivariate analyses showed that the number of short-haul flights during 2005–2008 was positively associated with the occurrence of occupational accidents in 2009 (= 0.004; p = 0.012). Cumulative exposure to long-haul flights during 2005–2008 proved to be negatively associated with occupational accidents in 2009 (= -0.006; p = 0.011).
Conclusions The results of this study show that cumulative exposure to short-haul flights is associated with an increased risk for occupational accidents among cabin crew. This increased risk may be caused by the specific characteristics of short-haul flights, such as frequent customer service and a high time pressure. Future research should focus on the effects of alternation between different flight schedules and the influence of specific roster characteristics of short-haul schedules.

405 EFFECTS OF EXPOSURE REDUCTION ON OCCUPATIONAL ALLERGIC DERMATITIS: COMPARISON OF PREVENTION EFFECTIVENESS OF NATIONAL ACTIONS IN UK AND FRANCE

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Objective Here we present data comparing trends in surveillance of occupational diseases in France and the UK for allergic contact dermatitis attributed to chromate in cement (CDCr) and contact urticaria attributed to latex (UL) within the context of changes in legislation or of national actions to reduce exposure to allergens at these two countries workplace.
Methods The time period for analysis was selected to coincide with the introduction of legislation or compensation in the UK and France (2005 for cement and 2004 for latex). Using the data of two nationwide occupational diseases reporting networks in UK and France (THOR and RNV3P respectively), we analysed the temporal trends of CDCr and of UL over the period 1998–2009. We calculated reporting odd ratio (ROR) with reference to period preceding the change of legislation for the causal agent (cement or latex) relative to time period after intervention, both for British and French data. The ROR compares the ratio of incident cases attributed to one specific allergen relative to all other causal agents, before and after the change in legislation.
Results During 2006–2009 relative to reference period, there was a significant decline of CDCr in UK construction sector (ROR = 0.37; 95% IC: 0.18 - 0.76) and a decline of french CD to cement (ROR = 0.66; 95% IC: 0.0.35 - 1.22). Concerning UL, there was a decrease in UK healthcare workers (ROR = 0.84; 95% IC: 0.57 - 1.25) in 2003–2007 period compared to 1998–2002 and a decrease in french cases (ROR = 0.73; 95% IC: 0.43 - 1.24).
Conclusion Through two distinct networks in UK and France, significant decline of CD attributed to chromate in cement and latex in gloves were observed following actions to reduce occupational exposure. These features are consistent with strong effectiveness of European preventive actions in these two countries.

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406 JAPANESE INDIUM COHORT STUDY: FIVE-YEAR FOLLOW-UP

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Background Since the demand for manufacturing flat panel display expands, we are ongoing an indium cohort study and followed up 310 indium exposure workers for 5 years to assess the changes on the lung effects.
Methods We conducted a baseline epidemiologic survey in 14 indium related plants between 2003 and 2006. A 5-year follow-up study was conducted in 11 of these 14 initial plants between 2008 and 2011. Follow-up rate is 57.2% (310/542). Indium concentration in serum (In-S) was determined as an exposure parameter, and effects on the lungs were examined. Some potential confounders were also checked. All participates were classified into three categories, non-, current, and former exposure, according to occupational history of indium exposure.
Results During the follow-up, intensive efforts for improvement of working environments were made in all 11 factories. In currently and formerly exposed workers, mean In-S and geometric means of interstitial biomarkers, KL-6 and SP-D, were significantly lower at follow-up than in the baseline study. In currently and formerly exposed workers, prevalence decreased by approximately 30% for KL-6 abnormalities but did not significantly decrease at all for $FEV_{1.0}$/FVC, %FVC, or $\%FEV_{1.0}$ abnormalities. In the formerly exposed group, chest high-resolution computed tomography (HRCT) showed high prevalence of interlobular septal thickening and emphysematous change (15.1% and 26.7%, respectively). Aggravation of interstitial change on HRCT was not affected by In-S level, whereas that of emphysematous change progressed in a dose-response manner, even after adjustment for smoking and age. Workers with ≥In-S 20 g/L had a greater risk of aggravation of emphysematous findings (AOR: 13.31; 95% CI: 3.29–53.89). During the 5-year-follow-up, two non-exposed worker at the baseline were diagnosed as lung and stomach cancers, and one currently exposed worker was diagnosed as renal cancer.
Conclusion Emphysematous changes might cause more chronic and longer-term lung effects than interstitial pneumonia.

407 CHRONIC-OBSTRUCTIVE PULMONARY DISEASE (COPD) CAUSED BY INHALATION OF INORGANIC DUST AT THE WORKPLACE - SYSTEMATIC REVIEW AND METAANALYSIS

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Objective A systematic review of the scientific medical literature on COPD and the inhalative exposure to inorganic dust and a metaanalysis.