

**Nº16**

# **Boletín LADEP**

**Boletín Nº16 - 4º Trimestre 2012**

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de Enfermedades Profesionales de Andalucía

## Boletín LADEP

*Boletín Nº16 -4º Trimestre 2012 (Octubre - Diciembre)*

**Boletín Editado por: Juan Luis Cabanillas Moruno**

**Boletín Maquetado por: Enma TS.**

## REVISTAS INTERNACIONALES CONSULTADAS

- [AMERICAN JOURNAL OF INDUSTRIAL MEDICINE](#)
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## Artículo Nº1

REVISTA: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - Am. J. Ind. Med. 55:991-999, 2012

### Título

**Occupational exposures and mortality from cardiovascular disease among women textile workers in Shanghai, China.** (Exposiciones laborales y mortalidad por enfermedades cardiovasculares entre trabajadoras textiles en Shanghai, China)

### Autores

Gallagher LG, Ray RM, Li W et al.

### Antecedentes

**Background.** Exposure to textile fiber dusts, like particulate air pollution, may be associated with cardiovascular disease (CVD) mortality. Bacterial endotoxin, a potent inflammagen found in cotton dust, may be a specific risk factor.

### Métodos

**Methods.** Female textile workers (N=267,400) in Shanghai, China were followed for CVD mortality (1989-2000). Factory exposures were approximated by sector classifications based on materials and processes. Quantitative endotoxin and cotton dust measures were available for a subcohort (n=3,188). Cox proportional hazards modeling was used to estimate hazard ratios (HR) and 95% confidence interval (CI).

### Resultados

**Results.** Slightly elevated mortality risk for the cotton sector was seen for ischemic stroke (HR=1.12, 95% CI: 0.97-1.31) and hemorrhagic stroke (HR=1.12, 95% CI: 1.02-1.23). Similar hemorrhagic stroke mortality risk was observed in high dust sectors (HR=1.12, 95% CI: 1.02-1.24). No association was observed for ischemic heart disease.

### Conclusiones

**Conclusions.** Exposures in textile factories may have contributed to CVD mortality among this cohort. The specific components of these exposures that may be harmful are not clear and should be further investigated.

## Artículo Nº2

REVISTA: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - Am. J. Ind. Med. 55:1037-1043, 2012

### Título

**Chronic rhinosinusitis and occupational risk factors among 20- to 75-year-old Danes—A GA2LEN-based study.** (Rinosinusitis crónica y factores de riesgo laboral entre daneses de 20 a 75 años: un estudio transversal).

### Autores

Thilsing T, Rasmussen J, Lange B

### Antecedentes

**Background.** Very little is known about occupational risk factors for chronic rhinosinusitis (CRS). The aim of this study was to evaluate occupational and other potential risk factors for CRS in a Danish population.

### Métodos

**Methods.** A cross sectional survey study among 4,554 Danes aged 20-75 years evaluated self-reported symptoms of CRS, asthma, and nasal allergy, along with information on smoking habits and occupation.

### Resultados

**Results.** A total of 3,099 returned completed questionnaires (response rate 68.1%). The overall CRS prevalence was 7.8% with no significant differences related to age or gender. Risk ratio estimates revealed an increased risk of CRS among female blue collar workers compared to female white collar workers. Among men the effect of occupation depended on smoking status. Occupational exposure to gasses, fumes, dust, or smoke increased the overall risk of CRS. CRS was reported approximately four times as often in subjects with asthma and in subjects with nasal allergy. Current smoking doubled the CRS prevalence.

### Conclusiones

**Conclusions.** CRS prevalence was affected by occupation (blue vs. white collar), but the observed effect depended on gender and smoking status. Exposure to airway irritants (occupational or smoking) increased the CRS prevalence. Studies on larger cohorts are needed to fully assess these tendencies, for example, by more extensive use of Job Exposure Matrix models.

**Artículo Nº3**

REVISTA: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - AM. J. IND. MED. 55:1037-1043, 2012

**Título****Endotoxin inhalation alters lung development in neonatal mice.** (La inhalación de endotoxina altera el desarrollo pulmonar en ratones neonatos).**Autores**

Kulhankova K, George C, Kline JN

**Antecedentes**

**Background.** Childhood asthma is a significant public health problem. Epidemiologic evidence suggests an association between childhood asthma exacerbations and early life exposure to environmental endotoxin. Although the pathogenesis of endotoxin-induced adult asthma is well studied, questions remain about the impact of environmental endotoxin on pulmonary responsiveness in early life.

**Métodos**

**Methods.** We developed a murine model of neonatal/juvenile endotoxin exposures approximating those in young children and evaluated the lungs inflammatory and remodeling responses.

**Resultados**

**Results.** Persistent lung inflammation induced by the inhalation of endotoxin in early life was demonstrated by the influx of inflammatory cells and pro-inflammatory mediators to the airways and resulted in abnormal alveolarization.

**Conclusiones**

**Conclusions.** Results of this study advance the understanding of the impact early life endotoxin inhalation has on the lower airways, and demonstrates the importance of an experimental design that approximates environmental exposures as they occur in young children.

## Artículo Nº4

REVISTA: INDUSTRIAL HEALTH - INDUSTRIAL HEALTH 2012,50: 529-539

**Título**

**Occupational Class Inequalities in Behavioral and Biological Risk Factors for Cardiovascular Disease among Workers in Medium- and Small-scale Enterprises.** (Desigualdades de clase laboral en factores de riesgo biológicos y psicosociales por enfermedad cardiovascular en trabajadores).

**Autores**

Morikawa Y, Tabata M, Kido T, Koyama Y.

**Resumen**

The aim of this cross-sectional study was to examine whether occupational class inequalities existed in the behavioral and biological risk factors for cardiovascular disease among workers in medium- and small-scale enterprises. We asked 1,900 enterprises in the Ishikawa prefecture who were users of an external health check-up facility to supply anonymous individual data in 2009. The 446 enterprises consented to the invitation. The study population was 12,625 individuals (8,104 males and 4,521 females) 16-59 yr of age. We compared indices among occupational classes. The indices of lipid and glucose metabolism were used only for subjects 40-59 yr of age. The results of this study revealed occupational class inequalities in the prevalence of current smoking, heavy drinking and hypertension in men. These inequalities were more prominent among men in the younger age group than in the older age group. In men, the most disadvantaged occupational class was transportation workers, followed by laborers. Occupational class inequalities in smoking were also found among female workers. However, the influences of occupational class on obesity and indices of lipid or glucose metabolism were inconsistent. A strategy for health promotion that targets the disadvantaged population is necessary for the prevention of cardiovascular disease.

## Artículo Nº5

REVISTA: JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY - 2012, 7:25

### Título

**Multiple Myeloma and lifetime occupation: results from the EPILYMPH study.** (Mieloma múltiple y la ocupación de toda la vida: los resultados del estudio EPILYMPH).

### Autores

Perrotta C, Staines A, Codd M

### Antecedentes

**BACKGROUND.** The EPILYMPH study applied a detailed occupational exposure assessment approach to a large multi-centre case-control study conducted in six European countries. This paper analysed multiple myeloma (MM) risk associated with level of education, and lifetime occupational history and occupational exposures, based on the EPILYMPH data set.

### Métodos

**Methods.** 277 MM cases and four matched controls per each case were included. Controls were randomly selected, matching for age ( $\pm 5$  years), centre and gender. Lifetime occupations and lifetime exposure to specific workplace agents was obtained through a detailed questionnaire. Local industrial hygienists assessed likelihood and intensity for specific exposures. The odds ratio and 95% confidence intervals (OR, 95% CI) were calculated for level of education, individual occupations and specific exposures. Unconditional logistic regression models were run for individual occupations and exposures.

### Resultados

**Results.** A low level of education was associated with MM OR=1.68 (95% CI 1.02-2.76). An increased risk was observed for general farmers (OR=1.77; 95% CI 1.05-2.99) and cleaning workers (OR=1.69; 95% CI 1.04-2.72) adjusting for level of education. Risk was also elevated, although not significant, for printers (OR=2.06; 95% CI 0.97-4.34). Pesticide exposure over a period of ten years or more increased MM risk (OR=1.62; 95% CI 1.01-2.58).

### Conclusiones

**Conclusions.** These results confirm an association of MM with farm work, and indicate its association with printing and cleaning. While prolonged exposure to pesticides seems to be a risk factor for MM, an excess risk associated with exposure to organic solvents could not be confirmed.



**Artículo Nº6**

REVISTA: MEDICINA DEL LAVORO - MED LAV 2012; 449-458

**Título**

Anti-smoking counseling in a group of workers with past exposure to asbestos. (Consejo antitabaco en un grupo de trabajadores expuestos a asbesto en el pasado)

**Autores**

D'AGOSTIN F, NEGRO C, BARBATTI G, DE ZOTTI R

**Introducción.**

**Introduction:** Anti-smoking counseling is often part of healthcare protocols for workers with past asbestos exposure; nevertheless, data is lacking about the results.

**Objetivos.**

**Objectives:** To evaluate smoking habits and the effects of anti-smoking counseling in a group of workers with past asbestos exposure.

**MÉTODOS**

**Methods.** Smoking was assessed in 671 subjects who voluntarily attended a health surveillance protocol. Fagerstrom's and Richmond's tests were used in order to estimate smokers' addiction and their potential will to quit. Besides anti-smoking counseling, smokers were also offered a formal cessation programme.

**RESULTADOS**

**RESULTS:** The mean age of the 671 subjects was 66 (DS= 7,9) years. The population consisted of 87 (13%) current smokers, 372 (55%) ex-smokers and 212 (32%) non smokers. According to Fagerstrom's test results, only 10% of the smokers presented a strong/very strong addiction, while Richmond's test results showed that 50% of the smokers had a strong/very strong will to quit. Only one smoker decided to join a cessation programme.

**Conclusiones**

**Conclusions:** The results of the study could present a bias, because volunteer-based protocols may promote the participation of self-motivated and health-sensitive subjects. This could be one of the reasons for the low prevalence of current smokers and high prevalence of ex-smokers. Anti-smoking counseling did not produce satisfactory effects because smokers were resistant to quitting smoking. Identification of anti-smoking counseling weak points may improve efficacy in health prevention controls made on subjects with past asbestos exposure.

## Artículo Nº7

REVISTA: MEDICINA DEL LAVORO - MED LAV 2012; 103, 6: 459-465

### Título

**Liver angiosarcoma from past exposure to vinyl chloride: a case report.** (Angiosarcoma hepático ex exposición pasada a cloruro de vinilo)

### Autores

DI LORENZO L, CORFIATI M, CATACCHIO T

### Antecedentes

**Background.** Experimental data and large occupational cohort studies in polyvinyl chloride (PVC) manufacturing plants have shown that vinyl chloride monomer (VCM) at high environmental concentrations, such as those measured in western chemical companies at least until the mid-1970's can cause liver angiosarcoma.

### OBJETIVOS

**Objectives:** To describe a recent, accurately diagnosed case of fatal liver angiosarcoma, for which it was possible to establish the causal relationship with past VCM exposure.

### RESULTADOS.

**RESULTS:** The deceased subject had been working as blue-collar for at least eleven years (1968-1979) in a PVC plant. VCM exposure was high on average and very high during autoclave cleaning, compared with VCM air measurements reported in those years at plants in Europe and the United States. The latency period was about 40 years. The duration of exposure, the cumulative exposure and the latency described were similar to those associated in the scientific literature with an excess risk for liver angiosarcoma.

### CONCLUSIONES

**CONCLUSIONS:** The Italian Workers' Compensation Authority (INAIL) has already acknowledged the occupational origin of this neoplastic disease with clear advantages for all parties concerned, not only in economical terms.

## Artículo Nº8

REVISTA: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - OCCUP ENVIRON MED 2012; 69: 781-786

### Título

**Changes in lymphocyte subsets in workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).** Cambios en subpoblaciones linfocitarias en trabajadores expuestos a 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).

### Autores

Hosnijeh FS, Lenters V, Boers D et al

### Objetivos

**Objective:** 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is known to have toxic effects on the haematopoietic system in animals but epidemiological studies in humans have shown inconsistent results. In this cross-sectional study we investigated changes in peripheral blood cell counts and lymphocyte subsets among workers from a Dutch historical cohort occupationally exposed to chlorophenoxy herbicides and contaminants including TCDD.

### Métodos

**Methods.** Forty-seven workers who had been exposed to high levels of TCDD in the past and 38 low-exposed workers were included in the current investigation. Complete blood counts and differential and major lymphocyte subsets were analysed. Current plasma levels of TCDD (TCDD<sub>current</sub>) were determined by high-resolution gas chromatography/isotope-dilution high resolution mass spectrometry. TCDD blood levels at the time of last exposure (TCDD<sub>max</sub>) were estimated using a one-compartment first order kinetic model.

### Resultados

**Results.** Cell counts and lymphocyte subsets were similar between high- and low-exposed workers, except for a non-dose dependent increase in CD4/CD8 ratio among high-exposed workers. Interestingly, most lymphocyte subsets, in particular the B cell compartment, showed a decrease with increasing levels of both TCDD<sub>current</sub> and TCDD<sub>max</sub>.

### Conclusiones

**Conclusions.** Overall, our study showed that plasma TCDD levels had no effect on white blood cell counts and major subsets. However, a non-significant decrease in most lymphocyte subsets was noted, with the strongest effect for B cells. The latter finding may suggest that dioxin exposure might have an adverse impact on the haematopoietic system and lends some support to B cell lymphoma induction by dioxin.

## Artículo Nº9

REVISTA: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - OCCUP ENVIRON MED 2012; 69:773-780

### Título

Ulnar neuropathy and ulnar neuropathy-like symptoms in relation to biomechanical exposures assessed by a job exposure matrix: a triple case-referent study. (Neuropatía cubital y síntomas similares a la neuropatía cubital relacionada con exposiciones biomecánicas evaluadas por una matriz de exposición laboral).

### Autores

Svendsen S, Johnsen B, Fuglsang A

### Objetivos

**OBJECTIVE:** We aimed to evaluate relations between occupational biomechanical exposures and (1) ulnar neuropathy confirmed by electroneurography (ENG) and (2) ulnar neuropathy-like symptoms with normal ENG.

### Métodos

**METHODS:** In this triple case-referent study, we identified all patients aged 18-65 years, examined with ENG at a neurophysiological department on suspicion of ulnar neuropathy, 2001-2007. We mailed a questionnaire to 546 patients with ulnar neuropathy, 633 patients with ulnar neuropathy-like symptoms and two separate groups of community referents, matched on sex, age and primary care centre (risk set sampling). The two patient groups were also compared to each other directly. We constructed a Job Exposure Matrix to provide estimates of exposure to non-neutral postures, repetitive movements, hand-arm vibrations and forceful work. Conditional and unconditional logistic regressions were used.

### Resultados

**RESULTS:** The proportion who responded was 59%. Ulnar neuropathy was related to forceful work with an exposure-response pattern reaching an OR of 3.85 (95% CI 2.04 to 7.24); non-neutral postures strengthened effects of forceful work. No relation was observed with repetitive movements. Ulnar neuropathy-like symptoms were related to repetitive movements with an OR of 1.89 (95% CI 1.01 to 3.52) in the highest-exposure category ( $\geq 2.5$  h/day); forceful work was unrelated to the outcome.

### Conclusiones

**CONCLUSIONS:** Ulnar neuropathy and ulnar neuropathy-like symptoms differed with respect to associations with occupational biomechanical exposures. Findings suggested specific effects of forceful work on the ulnar nerve. Thus, results corroborated the importance of an electrophysiological diagnosis when evaluating risk factors for ulnar neuropathy. Preventive effects may be achieved by reducing biomechanical exposures at work.

## Artículo Nº10

REVISTA: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - OCCUP ENVIRON MED 2012; 69:883-889

### Título

**Occupational exposure to cleaning products and asthma in hospital workers.** (Exposición laboral a productos de limpieza y asma en trabajadores hospitalarios).

### Autores

Dumas O, Donnay C, Heederik C et al.

### Objetivos

**OBJECTIVES:** Cleaning products may cause work-related asthma, but information regarding the specific exposures involved is scarce. We aimed to determine the associations between asthma and occupational exposure to cleaning agents in hospital workers.

### Métodos

**METHODS:** Analyses were conducted in 179 (136 women) hospital workers and a reference population of 545 subjects (18-79 years) from the French case-control and familial Epidemiological study on the Genetics and Environment of Asthma (2003-2007). Exposures to cleaning agents were estimated using three methods: self-report, expert assessment and an asthma-specific job-exposure matrix (JEM). Associations between cleaning products and current asthma were evaluated by logistic regressions, stratified by sex and adjusted for age and smoking status.

### Resultados

**RESULTS:** According to expert assessment, 55% of male and 81% of female hospital workers were exposed to cleaning/disinfecting tasks weekly ( $p < 0.001$ ). No association was observed between cleaning/disinfecting tasks and current asthma in men or in women whatever the assessment method used. In women, exposure to decalcifiers (expert assessment) was associated with current asthma (OR (95% CI): 2.38 (1.06 to 5.33)). In hospital workers classified as exposed according to both the expert assessment and the JEM, additional associations were observed for exposure to ammonia (3.05 (1.19 to 7.82)) and to sprays with moderate/high intensity (2.87 (1.02 to 8.11)).

### Conclusiones

**Conclusions.** Female hospital workers are often exposed to numerous cleaning products, some of which were markedly associated with current asthma. Low numbers prevented a meaningful analysis in men. Objective and more accurate estimates of occupational exposure to cleaning products are needed to better understand the adverse effects of cleaning products.

## Artículo Nº11

REVISTA: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - OCCUP ENVIRON MED 2012; 69:890-900

### Título

**A randomised controlled study to evaluate the effectiveness of targeted occupational health and safety consultation or inspection in Ontario manufacturing workplaces.** (Ensayo controlado aleatorio para evaluar la efectividad de consulta específica de salud y seguridad laborales o inspección en los lugares de trabajo de fabricación de Ontario.

### Autores

Hogh-Johnson S, Robson L, Cole D et al

### Objetivos

**OBJECTIVE:** From 2004 to 2008, the prevention system in Ontario, Canada ran the High Risk Firm Initiative, an injury-experience based targeted consultation or inspection programme. Our objective was to establish whether prevention system targeting of firms was effective in improving injury outcomes.

### Métodos

**METHODS:** Randomised controlled parallel groups. Population included all manufacturing firms registered with the Ontario Workplace Safety & Insurance Board in 2005. Firms ranked between the 2nd and 10th percentile on a composite measure of occupational health and safety performance were randomised to three study arms in 2006: targeted for Health & Safety Association (HSA) consultation, targeted for Ministry of Labour (MOL) inspection, or services as usual. Data included firm characteristics (sector, size, years in business, region, branches), work injury claims 2002-2008 and measures of consulting and inspecting activity. Negative binomial generalised estimating equations modelled claim and disability day rates by study arm and year, controlling for firm characteristics.

### Resultados

**RESULTS:** Among 2153 firms, firm characteristics and 2002-2005 rates of work injury claims and disability days were similar across arms. Firm outcomes were significantly different from year to year, but study arm by year interactions were insignificant indicating similar trends for all three study arms. 83% of HSA targeted firms were contacted and 63% engaged while 75% of MOL targeted firms were inspected with orders written in 56%.

### Conclusiones

**Conclusions.:** Consultation and enforcement programmes as implemented were not sufficient to reduce work injury outcomes over 21 month follow-up. Lack of benefit could be due to non-specific firm selection methods, limited firm participation in interventions, low intervention intensity or insensitivity of available outcomes.

## Artículo Nº12

REVISTA: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - SCAND J WORK ENVIRON HEALTH 2012; 38(6):568-576

### Título

**Long-term effects of biomechanical exposure on severe shoulder pain in the Gazel cohort.**  
(Efectos a largo plazo de la exposición biomecánica en dolor intenso de hombro en la cohorte Gazel).

### Autores

Descatha A, Teysseyre D, Cyr D, Imbernon E, Chastang J-F, Plenet A, Bonenfant S, Zins M, Goldberg M, Roquelaure Y, Leclerc A

### Objetivos

**OBJECTIVES:** We aimed to assess whether the risk factors for severe shoulder pain, especially exposure to arm elevation, were still relevant after a 12-year follow-up, even following retirement.

### Métodos

**METHODS:** All men participating in the ARPEGE ancillary study of the GAZEL cohort (followed-up since 1989) and who answered the 1994 or 1995 general GAZEL self-administered questionnaire were included. Weight and self-reported exposure (arm elevation  $>90^\circ$  with and without carrying loads) over the entire working life were collected at baseline (1994-1995). Shoulder pain and its intensity were recorded in 1994-1995 and again in 2006. Shoulder pain was measured on an intensity or discomfort 6-point scale in 1994-1995 and on an 8-point scale in 2006. Severe shoulder pain was defined as point-rated higher than the mid-points ( $>3/6$  in 1994-1995 and  $>4/8$  in 2006) while moderate pain was lower or equal to these thresholds.

### Resultados

**RESULTS:** At baseline, 1786 47-51-year-old men were included. In 1994-1995, moderate pain was observed among 8.5% (N=151) of men and severe shoulder pain among 14.6% (N=261). Exposure to arm elevation  $>90^\circ$  while carrying loads was significantly associated with severe shoulder pain with  $>25$  years of exposure [adjusted odds ratio (ORadj) 4.2, 95% confidence interval (95% CI) 1.7-10.5], taking into account age, sports, smoking habits, history of shoulder trauma, and body mass index. In 2006, when most of the subjects had retired, 1482 men (83.0%) answered the questionnaire, 17.3% of them with severe shoulder pain; the association between exposure to arm elevation  $>90^\circ$  while carrying loads and severe shoulder pain was still significant (ORadj 3.3, 95% CI 1.3-8.0), and remained so when subjects with shoulder pain at baseline were excluded.

### Conclusiones

**Conclusions.** Among men, the effect of high shoulder exposure (arm elevation  $>90^\circ$  while carrying loads) during working life on severe shoulder pain remains even after retirement. Extended surveillance and prevention should be offered to these workers.

**Artículo Nº13**

REVISTA SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - SCAND J WORK ENVIRON HEALTH 2012; 38(6):516-526

**Título**

**Transitions between sickness absence, work, unemployment, and disability in Denmark 2004-2008.** (Transiciones entre incapacidad temporal, trabajo, desempleo y discapacidad en Dinamarca entre 2004 y 2008).

**Autores**

Pedersen J, Bjorner JB, Burr H, Christensen KB

**Objetivos**

**OBJECTIVES:** Studies of labor market outcomes like sickness absence are usually restricted to a single outcome. This paper investigates the use of multi-state models for studying multiple transitions between sick-listing, work, unemployment, and disability pension by analyzing longitudinal register data. Every person sick-listed in Denmark during 2004 was followed until the spring of 2008.

**Métodos**

**METHODS:** A multi-state model was used to analyze transitions between four states: work, sickness absence, unemployment, and disability pension. The first three are possible recurrent states. The predictor variables include age group, gender, geographical region, chronic disease, temporary disease, self-employment sickness absence insurance, and pregnancy. The relative effects of previous transitions were also studied.

**Resultados**

**RESULTS:** Risk of transition from sickness absence to disability pension differs with age and geographical region. Those aged 20-29 years have an increased risk of transitioning from work to sickness absence and from sickness absence to unemployment. The self-employed have increased risk of transitioning from work to sickness absence. Those with chronic disease have increased risk of sickness absence, but also a greater probability of returning to work. Previous sickness absence increases the risk of transitioning from work to sickness absence, from sickness absence to unemployment, from work to unemployment, and from work to disability pension.

**Conclusiones**

**Conclusions.** The multi-state model is an effective way of analyzing register data and the transitions between sickness absence, work, unemployment, and disability pension. These methods can be used to develop better predictive models of sickness absence, return to work, unemployment, and disability.



## Artículo Nº14

REVISTA: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - SCAND J WORK ENVIRON HEALTH 2012; 38(6):503-515

### Título

**Unrecognized risks of nickel-related respiratory cancer among Canadian electrolysis workers.**  
(Riesgos no reconocidos de cáncer respiratorio relacionado con níquel entre trabajadores canadienses de electrolisis).

### Autores

Grimsrud TK, Andersen A

### Objetivos

**OBJECTIVES:** Nickel compounds, inclusive of water-soluble salts, have been classified as human carcinogens by the International Agency for Research on Cancer (IARC). Nickel producers have disputed the classification of soluble nickel compounds for three decades with reference to an alleged absence of excess respiratory cancer among Canadian nickel-exposed electrolysis workers. We evaluated historical data from two electrolytic refineries in Ontario, both included in prominent Canadian reports on occupational nickel-related cancer.

### Métodos

**METHODS:** For Port Colborne nickel refinery (PCNR) and Copper Cliff copper refinery (CCCR), we identified process descriptions, exposure estimates, and original reports on cancer mortality using reference lists, libraries, and state archives. The documents were written or published between 1930 and 1992.

### Resultados

**RESULTS:** For PCNR, a 1977 US National Institute of Occupational Safety and Health criteria document demonstrated an excess nasal cancer risk among electrolysis workers independent of furnace exposure. PCNR studies published after 1980 excluded 26% of long-term refiners who died from respiratory cancer according to earlier reports, and 42% of the workers had unknown vital status at the end of follow-up, biasing the standardized observed-to-expected mortality ratios downwards, most pronounced in recent reports and for workers without pension or company benefits. CCCR reports did not adequately address soluble nickel exposure in the evaluation of an observed occupational lung cancer excess.

### Conclusiones

**Conclusions.** While acknowledging important contributions to the recognition of nickel carcinogenicity from highly exposed Canadian refiners, we conclude that the claimed absence of nickel-related respiratory cancer among electrolysis workers has resulted from an arbitrary overemphasis of biased and inconclusive findings.

## Artículo Nº15

REVISTA: THE NEW ENGLAND JOURNAL OF MEDICINE - N ENGL J MED 2012; 367:1310-1320

### Título

**C-Reactive Protein, Fibrinogen, and Cardiovascular Disease Prediction.** (Proteína C reactiva, fibrinógeno y predicción de enfermedad cardiovascular)

### Autores

The Emerging Risk Factors Collaboration

### Antecedentes

**Background:** There is debate about the value of assessing levels of C-reactive protein (CRP) and other biomarkers of inflammation for the prediction of first cardiovascular events.

### Métodos

**METHODS:** We analyzed data from 52 prospective studies that included 246,669 participants without a history of cardiovascular disease to investigate the value of adding CRP or fibrinogen levels to conventional risk factors for the prediction of cardiovascular risk. We calculated measures of discrimination and reclassification during follow-up and modeled the clinical implications of initiation of statin therapy after the assessment of CRP or fibrinogen.

### Resultados

**RESULTS:** The addition of information on high-density lipoprotein cholesterol to a prognostic model for cardiovascular disease that included age, sex, smoking status, blood pressure, history of diabetes, and total cholesterol level increased the C-index, a measure of risk discrimination, by 0.0050. The further addition to this model of information on CRP or fibrinogen increased the C-index by 0.0039 and 0.0027, respectively ( $P < 0.001$ ), and yielded a net reclassification improvement of 1.52% and 0.83%, respectively, for the predicted 10-year risk categories of "low" ( $< 10\%$ ), "intermediate" (10% to  $< 20\%$ ), and "high" ( $\geq 20\%$ ) ( $P < 0.02$  for both comparisons). We estimated that among 100,000 adults 40 years of age or older, 15,025 persons would initially be classified as being at intermediate risk for a cardiovascular event if conventional risk factors alone were used to calculate risk. Assuming that statin therapy would be initiated in accordance with Adult Treatment Panel III guidelines (i.e., for persons with a predicted risk of  $\geq 20\%$  and for those with certain other risk factors, such as diabetes, irrespective of their 10-year predicted risk), additional targeted assessment of CRP or fibrinogen levels in the 13,199 remaining participants at intermediate risk could help prevent approximately 30 additional cardiovascular events over the course of 10 years.

### Conclusiones

**Conclusions.** In a study of people without known cardiovascular disease, we estimated that under current treatment guidelines, assessment of the CRP or fibrinogen level in people at intermediate risk for a cardiovascular event could help prevent one additional event over a period of 10 years for every 400 to 500 people screened. (Funded by the British Heart Foundation and others)

**Artículo Nº16****REVISTA: ARCHIVOS DE PREVENCIÓN DE RIESGOS LABORAL - ARCH PREV RIESGOS LABOR 2012; 15 (4): 185-191****Título****Evaluación de un programa de subvenciones para la mejora de la seguridad y salud laboral de las PYMES en Andalucía****Autores**

Carrillo JA, Onieva L, Ruiz Frutos C

**Objetivos**

Evaluar un programa de subvenciones para proyectos de prevención de riesgos laborales en PYMES de Andalucía. Se analizan datos y resultados del programa entre 2006 y 2008.

**Métodos**

Se analizaron las características del programa en términos de presupuesto, solicitudes y proyectos financiados. Se evaluó la percepción de las empresas solicitantes en cuanto a adecuación y resultados del programa mediante cuestionario postal anonimizado. Se calculó la incidencia de accidentes de trabajo en 2006 y 2007 en una submuestra de las empresas participantes en el programa en 2006.

**Resultados**

El importe total de las subvenciones (algo más de 17 millones de euros) cubrió el 44% de las inversiones comprometidas por las empresas subvencionadas. Se concedieron en torno al 50% de las ayudas solicitadas. Se recibieron 573 cuestionarios completados (24% del total remitido). Entre las empresas subvencionadas, el 89% considera efectiva la inversión realizada y un 87% estima que han mejorado las condiciones de trabajo en la empresa. La inmensa mayoría de las empresas (&gt;90%) considera que la falta de recursos económicos es un obstáculo para la prevención y que este tipo de ayudas son necesarias. La incidencia de accidentes de trabajo se redujo entre 2007 y 2006 (razón de incidencia 0,93; IC95% 0,78-1,11).

**Conclusiones**

El programa ha tenido una valoración positiva, observándose una reducción de la incidencia de accidentes en las empresas que recibieron incentivos. Es necesario incorporar en el diseño de estos programas los criterios e indicadores necesarios para su evaluación.

## Artículo Nº17

REVISTA: REVISTA DE MEDICINA DEL TRABAJO - MEDICINA DEL TRABAJO 2012; 7 (3): 21-26

**Título****Caso de tuberculosis en un ámbito hospitalario****Autores**

Oulkadi J, Corrales MA, Álvarez AM, Romero I

**Resumen**

España presenta una tasa de incidencia de tuberculosis de 30 casos por cada 100.000 habitantes al año, lo que supone el doble que en Francia y la mitad que en Marruecos. Paciente de 29 años auxiliar de enfermería en la Agencia Pública Empresarial Sanitaria Costa del Sol acude a urgencias tras un cuadro de una semana de evolución después del primer diagnóstico de infección respiratoria y sin respuesta al tratamiento antibiótico inicial. La vuelta de la trabajadora a urgencias con un cuadro agudizado al poco tiempo orienta hacia una diagnóstico de tuberculosis. Una vez confirmado, desde vigilancia de la salud se aplican las medidas preventivas adecuadas tanto para despistaje de casos nuevos como de seguimiento del trabajador y de los contactos infectados, y el médico del trabajo establece un protocolo eficaz de actuación.