

Nº 6

Boletín LADEP

Boletín Nº6 - 1º Trimestre 2010

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de Enfermedades Profesionales de Andalucía

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Boletín Nº6 - 1º Trimestre 2010 (Enero - Marzo)

Boletín Editado por: Juan Luis Cabanillas Moruno

Editorial

La formación especializada en Medicina del Trabajo y en Enfermería del Trabajo ha sufrido una importante transformación, en el caso de la Medicina desde el año 2005 y en el de Enfermería desde 2010. Fechas, en las que, respectivamente, por primera vez se incorporaron médicos y enfermeros como residentes para iniciar su formación especializada.

La formación en régimen de residencia supone aprender trabajando, con un contrato de especialista en formación, con un programa estructurado de rotaciones que dé cumplimiento al programa de formación de la especialidad, publicado en el BOE de 25 de mayo de 2005 para los médicos de trabajo, y en el BOE de 29 de mayo de 2009 para los enfermeros del trabajo. Supone, igualmente, la adquisición progresiva de responsabilidades por parte del especialista en formación junto a una supervisión decreciente por parte del tutor. Además los residentes están sometidos a procesos de evaluación formativa o continua, anual y final, tal y como señala el Real Decreto 183/2008.

La formación en Medicina del Trabajo y en Enfermería del Trabajo, se organiza y dirige exclusivamente desde las Unidades Docentes, a las que acceden los residentes tras una prueba selectiva de carácter nacional, específica para su titulación. Esto quiere decir que en España no existe otro sistema de formación en ambas especialidades. En 2005 iniciaron su andadura con el nombre de Unidades Docentes de Medicina del Trabajo, y formaban sólo a médicos especialistas en Medicina del Trabajo, alcanzándose una oferta anual de plazas en el examen MIR que supera las 130 plazas, repartidas desigualmente por las 15 Unidades Docentes existentes. Estas plazas son financiadas por los Sistemas Sanitarios Públicos de las Comunidades Autónomas en su mitad, y la otra mitad por Mutuas de Accidentes de Trabajo y Enfermedades Profesionales, y por Servicios de Prevención de Riesgos Laborales, propios y ajenos, públicos y privados; todos estos dispositivos donde se forman los residentes han de ser acreditados como dispositivo docente de una Unidad Docente, función que corresponde al Ministerio de Sanidad y Política Social. Cada Unidad de Medicina del Trabajo ha configurado su propio esquema de financiación. Todas las Unidades Docentes de Medicina del Trabajo radican en el Sistema Sanitario Público de la Comunidad Autónoma, excepto en dos de ellas, que están radicadas en la Universidad; dándose la circunstancia que se trata de la única especialidad médica en régimen de residencia, que tiene alguna Unidad Docente radicada en una Universidad.

Entre 2009 y 2010 tres Unidades Docentes de Medicina del Trabajo, las de Andalucía, Murcia y Castilla-León, adaptándose a lo previsto en el Real Decreto 183/2008, se han acreditado para formar también especialistas en Enfermería del Trabajo. Por ello han cambiado su denominación a Unidad Docente Multiprofesional de Salud Laboral, formándose en ella enfermeros especialistas en Enfermería del Trabajo y médicos especialistas en Medicina del Trabajo.

Los nuevos programas de formación, con una duración de 4 años para los médicos del trabajo, y de 2 años para los enfermeros del trabajo, están orientados para que los residentes adquieran conocimientos, habilidades y actitudes que les permitan desenvolverse en las competencias explicitadas en sus respectivos programas de formación. El objetivo final de la formación especializada es capacitar al residente para manejarse, en el ámbito de su especialidad, en los tres pilares de todas las profesiones sanitarias: asistencia y prevención, docencia e investigación.

En Enfermería del Trabajo el cambio es aún muy incipiente, pero en Medicina del Trabajo sí que hay más experiencia. Cuando escribo estas líneas están a punto de incorporarse, por primera vez, los enfermeros; y los médicos se incorporan por sexto año consecutivo, a la vez que terminan su formación como especialistas la segunda promoción de médicos especialistas en Medicina del Trabajo. El cambio producido en la formación les ha permitido adquirir una sólida formación en Medicina del Trabajo, en sus vertientes asistencial, preventiva, pericial, docente e investigadora.

La formación clínica la han adquirido en las rotaciones por centros de salud y hospitales, por especialidades médicas, quirúrgicas y médico-quirúrgicas, así como haciendo guardias de urgencias hospitalarias, realizadas mayoritariamente en grandes hospitales. Así mismo, se han formado en Servicios de Prevención de Riesgos Laborales, en Inspecciones Médicas y Unidades Médicas de Valoración, y en otros dispositivos de Medicina del Trabajo durante casi dos años, habiendo recibido, además, formación teórica al realizar el Curso Superior en Medicina del Trabajo.

La capacidad docente la han desarrollado impartiendo cursos de prevención de riesgos laborales a los trabajadores, presentando sesiones clínicas en los centros de salud, en los hospitales y en los Servicios de Prevención por los que han rotado. La capacidad investigadora la han desarrollado, y se les ha evaluado por ello, haciendo un trabajo de investigación, que han tenido que presentar y defender públicamente, al finalizar el tercer año de residencia.

Además, muchos de ellos han presentado comunicaciones en congresos, han sido premiados por ellos y han publicado artículos en revistas científicas. Algunos de ellos han hecho rotaciones externas en prestigiosos centros extranjeros de Medicina del Trabajo.

El excelente y variado bagaje adquirido por estos entusiastas especialistas, tan bien preparados, habrá de acompañarse necesariamente de cambios sustanciales en el ejercicio de la especialidad. Además de puestos en los que, obligatoriamente, se exige ser médico especialista en Medicina del Trabajo, serán requeridos para ocupar puestos en Mutuas de Accidentes de Trabajo y Enfermedades Profesionales, en el Sistema Nacional de Salud, en la docencia, en la dirección de servicios de salud laboral o en otros campos de acción de la Medicina del Trabajo en los que irán desplazando a médicos de otras especialidades con menor competencia o sin competencia para resolver problemas de Salud Laboral. Por otro lado estos nuevos especialistas están acostumbrados al trabajo multidisciplinar de los Servicios de Prevención de Riesgos Laborales porque se han formado con otras disciplinas preventivas.

Los efectos beneficiosos de los cambios operados no han hecho más que empezar, y no sólo benefician a los especialistas formados en este sistema de residencia. También se benefician los tutores, es decir los especialistas en medicina del trabajo responsables del proceso de formación y aprendizaje de los residentes.

Indudablemente, también prestigia a las instituciones que están financiando y formando a los residentes en sus dispositivos. Los Servicios de Prevención docentes y las Mutuas docentes, esto es, acreditados para formar especialistas en Medicina del Trabajo y en Enfermería del Trabajo, están liderando ya la formación especializada y están llamadas a liderar la investigación y la excelencia en ambas especialidades y en Salud Laboral. Exactamente igual que ha ocurrido con las demás especialidades en ciencias de la salud.

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REVISTAS INTERNACIONALES CONSULTADAS

- AMERICAN JOURNAL OF INDUSTRIAL MEDICINE
- JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY
- INTERNATIONAL JOURNAL OF HYGIENE AND ENVIRONMENTAL HEALTH
- OCCUPATIONAL AND ENVIRONMENTAL MEDICINE
- OCCUPATIONAL MEDICINE
- SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH

REVISTAS NACIONALES CONSULTADAS

- ARCHIVOS DE PREVENCIÓN DE RIESGOS LABORALES
- MEDICINA Y SEGURIDAD DEL TRABAJO
- REVISTA DE LA SOCIEDAD ESPAÑOLA DE MEDICINA Y SEGURIDAD DEL TRABAJO

Artículo Nº1

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 53: 55-63, 2010

Título

Occupational health crossing borders part 2: Comparison of 18 occupational health systems across the globe (Cruzando fronteras en salud laboral, parte 2: comparación de 18 sistemas de salud laboral de todo el mundo)

Autores

Katja Radon, Vera Ehrenstein, Dennis Nowak, et als. Occupational Health Crossing Borders Summer School Team

Objetivos

Objectives. Occupational health and safety (OHS) is considered one of the most important factors for a sustainable development; however, it is often considered a luxury by decision-makers. This article compares OHS systems of 18 countries at different stages of development.

Métodos

Methods. In an international summer school, structure of the national OHS system, definition of occupational accidents and diseases, procedures for compensation claims, outcome (expressed as incidence of occupational accidents) and training opportunities were presented.

Resultados

Results. National OHS systems ranged from non-existent to systems implemented almost 200 years ago. Priorities, incidence of occupational accidents and training opportunities varied. Common problems included the lack of OHS service for small enterprises and in rural areas.

Conclusiones

Conclusions. International training programs like this summer school might enhance the exchange about OHS opportunities around the globe and contribute to improved workers health

Palabras Claves

Key terms. Occupational health, occupational accidents, developing countries, developed countries, teaching, international educational Exchange.

Artículo Nº2

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 53:23-36, 2010

Título

The law and incomplete database information as confounders in epidemiologic research on occupational injuries and illnesses (La legislación y la información incompleta de las bases de datos como factores de confusión en la investigación epidemiológica sobre accidentes y enfermedades profesionales)

AutoresArthur Oleinick, MD, JD, MPH^{1*}, Brian Zaidman, BA²¹Environmental Health Sciences, School of Public Health, University of Michigan, Ann Arbor, Michigan²Policy Development, Research and Statistics, Department of Labor and Industry, State of Minnesota, St. Paul, Minnesota**Objetivos**

Objectives. Capture-recapture studies report undercounting of work injuries/illnesses with days away from work (DAFW) in the Bureau of Labor Statistics annual Survey of Occupational Injuries and Illnesses (BLS SOII) by 25-68% depending on the state and undercounting by various state workers' compensation (WC) systems of eligible claims by 5-35%.

Métodos

Methods. Statutory/regulatory criteria defining eligible cases are used to adjust counts in the 1998-2001 Minnesota's WC system and the BLS SOII to permit comparison and to evaluate the recent studies. Missing information in the employer database used in the capture-recapture studies is tabulated. An attempt is made to harmonize results with two additional databases counting work injuries.

Resultados

Results. Counts in the BLS SOII moderately undercount by 10-16% the number of WC cases. We believe that matching in capture-recapture studies is adversely affected by misperceptions regarding the application of statutory/regulatory eligibility criteria and by missing data. The result is that the reported undercounts in both the BLS SOII and several state WC databases are overstated in the capture-recapture studies. Although three of four databases can be approximately harmonized, the fourth cannot.

Conclusiones

Conclusions. More precisely targeted information is needed before decisions regarding redesign of the BLS survey are made or before legislative or administrative changes in the WC are contemplated.

Palabras Claves

Key terms. Occupational accidents, epidemiologic methods, capture-recapture, surveillance.

Artículo Nº3

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 53:84-94 2010

Título*Surveillance of occupational health disparities: Challenges and opportunities (Disparidades en vigilancia de la salud laboral: retos y oportunidades)***Autores**

Kerry Souza, Andrea L. Steege, Sherry L. Baron

Abstract

Resumen. Increasingly, the occupational health community is turning its attention to the effects of work on previously underserved populations, and researchers have identified many examples of disparities in occupational health outcomes. However, the occupational health status of some underserved worker populations is not described due to limitations in existing surveillance systems. As such, the occupational health community has identified the need to enhance and improve occupational health surveillance to describe the nature and extent of disparities in occupational illnesses and injuries (including fatalities), identify priorities for research and intervention, and evaluate trends. This report summarizes the data sources and methods discussed at an April 2008 workshop organized by NIOSH on the topic of improving surveillance for occupational health disparities. We discuss the capability of existing occupational health surveillance systems to document occupational health disparities and to provide surveillance data on minority and other underserved communities. Use of administrative data, secondary data analysis, and the development of targeted surveillance systems for occupational health surveillance are also discussed. Identifying and reducing occupational health disparities is one of NIOSH's priority areas under the National Occupational Research Agenda (NORA).

Palabras Claves**Key terms.** Surveillance, disparities, occupational health, immigrant workers, socioeconomic status.

Artículo Nº4

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 53:217-223, 2010

Título

Occupational factors and risk of Parkinson's disease: A population-based case-control study (Factores laborales y riesgo de enfermedad de Parkinson: un estudio de casos y controles de base poblacional)

Autores

Jordan A. Firestone, Jessica I. Lundin, Karen M. Powers, Terri Smith-Weller, Gary M. Franklin, Phillip D. Swanson, W.T. Longstreth Jr., Harvey Checkoway

Objetivos

Objectives. To estimate the risk of PD associated with various jobs and workplace exposures.

Métodos

Methods. We conducted a population-based, case-control study of 404 incident PD cases and 526 age and sex-matched controls, collecting self-reported work histories including job titles and exposures to various industrial toxicants. Relative risks of PD from these exposures were estimated with odds ratios (OR) and 95% confidence intervals (CI) using logistic regression.

Resultados

Results. Risk was not significantly affected by farming work, by metal work, or by exposure to pesticides, metals, or solvents.

Conclusiones

Conclusions. These findings do not provide support for the hypothesis that workplace factors affect the risk of PD.

Fondo

Background Parkinson's disease (PD) has been associated with various workplace factors, but the evidence is inconsistent.

Artículo Nº5

Revista: JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY - 2010, 5:4

Título

Work and diet-related risk factors of cardiovascular diseases - comparison of two occupational groups (Factores de riesgo laborales y relacionados con la dieta en enfermedades cardiovasculares: comparación de dos grupos laborales)

Autores

Danielle Hartung, Martina Stadeler, Romano Grieshaber, Sylvia Keller and Gerhard Jahreis.

Introducción

Introduction. Although work related risk factors associated with Cardiovascular Diseases (CD) have been well researched, there is no detailed knowledge regarding disparate occupational groups each with a different risk exposition. Therefore, two occupational groups (chefs and office workers) were compared with a focus on nutritional and psychosocial factors.

Métodos

Methods. Two groups of subjects were tested for work and diet-related risks of CD (45 chefs and 48 office workers). The groups matched both for gender (male) and age (30 to 45 years). The study included a medical check-up, bioelectrical impedance analysis as well as an evaluation of questionnaires on health, nutritional behaviour and coping capacity. In addition, volunteers were required to compile a 7-day-dietary-record and collect their urine 24 h prior to their check-up. Blood samples drawn were analysed for glucose and lipid metabolism, homocysteine, vitamin B12, folic acid; C-reactive protein, uric acid, red blood cell fatty acids, plant sterols, antioxidative capacity and oxidative stress.

Resultados

Results. On average, the chefs showed one risk factor more compared to the office workers. The most frequent risk factors in both groups included overweight/obesity (chef group [CG]: 62.2 %; office group [OG]: 58.3 %) and elevated TC (CG: 62.2 %; OG: 43.8 %). Moreover, although the chefs often had higher CRP-concentrations (40.0 %), more office workers suffered from hypertension (37.5 %). Chefs showed significant higher concentrations of saturated fatty acids and oleic acid, whereas docosahexaenoic acid, Omega-6- and trans fatty acids were found more frequently in the red blood cell membranes of office workers. While there were no significant differences in analysed plant sterols between the two occupational groups, 7,8-dihydro-8-oxo-2'-deoxyguanosine was significantly increased in office workers. Concerning the work-related psychosocial factors, the chefs were characterised by a stronger subjective importance of work, a greater degree of professional aspiration and enhanced efforts at perfectionism at their workplace.

Conclusiones

Conclusions. The chefs in the study bear a higher risk of CD compared to the office-workers. Although, CD is not exclusively a result of workplace-conditions, study results show that work-related influences can not be ignored. Thus, prevention of CD may be an important task attributable to occupational physicians.

Artículo Nº6

Revista: INTERNATIONAL JOURNAL OF HYGIENE AND ENVIRONMENTAL HEALTH - 2010 213(2):99-106

Título*Genotoxicity evaluation in workers occupationally exposed to lead. (Evaluación de la genotoxicidad en trabajadores expuestos laboralmente a Plomo)***Autores**

Paramjit Grover, P.V. Rekhadevi, K. Danadevi, S.B. Vuyyuri, M. Mahboob and M.F. Rahman

Abstract

Resumen. Lead (Pb) is a widely used heavy metal with a broad industrial usage. Nevertheless, Pb is a serious public health issue as it is one of the most widespread environmental and industrial toxins. The aim of this investigation was to assess the genotoxicity of Pb using the comet assay, micronucleus (MN) and chromosomal aberrations (CA) test. Blood and urinary Pb content, levels of δ -aminolevulinic acid dehydratase in the erythrocytes (E-ALAD) and δ -aminolevulinic acid in urine (U-ALA) were determined. The exposure associated oxidative stress was also studied. The study group comprised of 90 male Pb recovery unit workers and 90 matched controls. The results indicated that the exposed workers had a significantly higher mean comet tail length than that of controls ($P < 0.05$). Analysis of micronuclei in buccal epithelial cells (BEC's) and peripheral blood lymphocytes (PBL) revealed that there was a significant increase in frequency of MN in exposed subjects than controls. The frequency of aberrant metaphases was also found to be significantly elevated in the Pb exposed workers. The levels of antioxidant enzymes were relatively reduced ($P > 0.05$) while the rate of lipid peroxidation was higher in the exposed subjects. Blood and urinary Pb concentrations were found to be higher in exposed workers than in controls. E-ALAD levels were reduced and U-ALA levels were elevated in the exposed subjects in comparison to controls. Results of analysis, taking the confounding factors into consideration provide evidence for the association of Pb exposure and genotoxicity, and predict the increased risk of cancer to the exposed workers. In view of the observed results, it can be strongly concluded that the workers comprise the risk group and adequate safety, precautionary and preventive measures could only minimize exposure and the related health hazards.

Palabras Claves

Key terms. Toxicology Unit, Biology Division, Indian Institute of Chemical Technology, Hyderabad 500 007, Andhra Pradesh, India

Artículo Nº7

Revista: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - 2010;67:54-57

Título*Incidence of metabolic syndrome among night-shift healthcare workers (Incidencia de síndrome metabólico entre trabajadores de cuidados de salud en turno nocturno)***Autores**

A Pietroiusti, A Neri, G Somma

Objetivos

Objectives. Night-shift work is associated with ischaemic cardiovascular disorders. It is not currently known whether it may be causally linked to metabolic syndrome (MS), a risk condition for ischaemic cardiovascular disorders. The syndrome presents with visceral obesity associated with mild alterations in glucidic and lipidic homeostasis, and in blood pressure. The aim of this study was to assess whether a causal relationship exists between night-shift work and the development of MS.

Métodos

Methods. Male and female nurses performing night shifts, free from any component of MS at baseline, were evaluated annually for the development of the disorder during a 4-year follow-up. Male and female nurses performing daytime work only, visited during the same time period, represented the control group.

Resultados

Results. The cumulative incidence of MS was 9.0% (36/402) among night-shift workers, and 1.8% (6/336) among daytime workers (relative risk (RR) 5.0, 95% CI - 2.1 to 14.6). The annual rate of incidence of MS was 2.9% in night-shift workers and 0.5% in daytime workers. Kaplan-Meier survival curves of the two groups were significantly different (log-rank test; $p < 0.001$). Multiple Cox regression analysis (forward selection method based on likelihood ratio) showed that among selected variables (age, gender, smoking, alcohol intake, familiar history, physical activity, and work schedule) the only predictors of occurrence of MS were sedentariness (hazard ratio (HR) 2.92; 95% CI 1.64 to 5.18; $p = 0.017$), and night-shift work (HR 5.10; 95% CI 2.15 to 12.11; $p < 0.001$).

Conclusiones

Conclusions. The risk of developing MS is strongly associated with night-shift work in nurses. Medical counselling should be promptly instituted in night-shift workers with the syndrome, and in case of persistence or progression, a change in work schedule should be considered

Artículo Nº8

Revista: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE - 2010;67:98-103

Título

Occupational exposure to polycyclic aromatic hydrocarbons and lung cancer risk: a multicenter study in Europe (Exposición laboral a hidrocarburos aromáticos policíclicos y riesgo de cáncer de pulmón: un estudio multicéntrico europeo)

Autores

Ann C Olsson, Joelle Fevotte, Tony Fletcher

Objetivos

Objectives. To investigate the contribution of occupational exposure to polycyclic aromatic hydrocarbons (PAH) to lung cancer in CEE.

Métodos

Methods. A case-control study was conducted in the Czech Republic, Hungary, Poland, Romania, Russia and Slovakia, as well as the United Kingdom (UK) between 1998 and 2002. Occupational and socio-demographic information was collected through interviews from 2861 newly diagnosed lung cancer cases and 2936 population or hospital controls. Industrial hygiene experts in each country evaluated exposure to 70 occupational agents, whereof 15 mixtures containing PAH. ORs of lung cancer were calculated after adjusting for other occupational exposures and tobacco smoking.

Resultados

Results. The OR for ever exposure to PAH in the CEE countries was 0.93 (95% CI 0.77 to 1.14). The ORs for the highest category of cumulative exposure, duration of exposure and intensity of exposure were 1.13 (95% CI 0.80 to 1.58), 1.02 (95% CI 0.66 to 1.57) and 1.11 (95% CI 0.60 to 2.05), respectively. The OR for ever PAH exposure in the UK was 1.97 (95% CI 1.16 to 3.35).

Conclusiones

Conclusions. Occupational PAH exposure does not appear to substantially contribute to the burden of lung cancer in CEE. The apparently stronger effect observed in the UK may be due to high exposure levels and a joint effect with asbestos.

Fondo

Background. Lung cancer incidence in Central and Eastern Europe (CEE) is among the highest in the world, and the role of occupational exposures has not been adequately studied in these countries.

Artículo Nº9

Revista: OCCUPATIONAL MEDICINE - 2010 60(1):29-35

Título*Factors associated with visits to occupational health physicians in Finland (Factores asociados con visitas a médicos del trabajo en Finlandia)***Autores**

Annukka Kimanen, Pirjo Manninen, Kimmo Räsänen, Maria Rautio, Päivi Husman and Kaj Husman

Objetivos**Objectives.** To analyse factors associated with visits to seek primary care from occupational health physicians (OH physicians) and compared with visits to physicians in municipal health centres, private clinics and hospital outpatient clinics.**Métodos****Methods.** The subjects of this population-based cross-sectional survey comprised 1753 randomly selected employed Finns aged 25-64 years covered by OHS including primary care. The associations between visits to physicians during the past 6 months and factors related to work and perceived health were tested using Poisson regression analysis.**Resultados****Results.** Provision of primary care in OHS increased visits to OH physicians but decreased visits to municipal health centre physicians. Among both genders, long-standing illnesses impairing work ability had the strongest associations with visits to all physicians. Among men, the factors associated with visits to OH physicians were long-standing illnesses without effect on work ability, requirement of sickness certificate from the first day of sickness, OHS arranged in private clinics and moderate stress symptoms. Among women, lower vocational level, OHS arranged in private clinics or joint-model OHS units, moderate stress symptoms and workplace harassment were associated with visits to OH physicians.**Conclusiones****Conclusions.** Primary care in OHS enables OH physicians to reach workers with work-related health problems, thus enabling interventions on working conditions and work ability. Moreover, OHS seem to be a very important health care provider in Finland.**Fondo****Background.** Lung cancer incidence in Central and Eastern Europe (CEE) is among the highest in the world, and the role of occupational exposures has not been adequately studied in these countries.**Key terms.****Palabras Claves.** Cross-sectional survey; occupational health physicians; occupational health services; office visits; work-related factors

Artículo Nº10

Revista: OCCUPATIONAL MEDICINE - 2010 60(2):115-120

Título

Further validation of computer-based prediction of chemical asthma hazard (Nueva validación de predicción computarizada de riesgo químico de asma)

Autores

Martin Seed and Raymond Agius

Objetivos

Objectives. To iterate the external validation of a previously published quantitative structure-activity relationship (QSAR) model for the prediction of novel chemical respiratory sensitizers and to better characterize its predictive accuracy.

Métodos

Methods. An external validation set of control chemicals was identified from the Australian Hazardous Substances Information System. An external validation set of asthmagenic chemicals was identified by a thorough search of the peer-reviewed literature from January 1995 onwards using the Medline database. The QSAR model was used to determine an 'asthma hazard index' (between 0 and 1) for each chemical.

Resultados

Results. A total of 28 external validation asthmagens and 129 control chemicals were identified. The area under the receiver operating characteristic (ROC) curve for the model's ability to distinguish asthmagens from controls was 0.87 (95% CI 0.76-0.97). Using a cut-off hazard index of 0.5 resulted in sensitivity of 79% and specificity of 93%. For prior probability ranging from 1:300 to 1:100, the negative predictive value (NPV) was 1 and positive predictive value (PPV) 0.04-0.1 while for prior probability ranging from 1:20 to 1:3, the NPV was 0.91-0.99 and PPV 0.39-0.85.

Conclusiones

Conclusions. The ROC curve for this QSAR demonstrates good global predictive power for distinguishing asthmagenic from non-asthmagenic LMW organic compounds. Potential for utilization by occupational and respiratory physicians is evident from its predictive values.

Fondo

Background. There is no agreed protocol for the prediction of low molecular weight (LMW) respiratory sensitizers. This creates challenges for occupational physicians responsible for the health of workforces using novel chemicals and respiratory physicians investigating cases of occupational asthma caused by novel asthmagens.

Key terms.

Palabras Claves. Novel asthmagen; occupational asthma; QSAR; respiratory sensitizer

Artículo Nº11

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2010;36(1):34-41

Título

Prognostic factors for long-term sickness absence among employees with neck-shoulder and low-back pain (Factores pronósticos de absentismo de larga duración por enfermedad entre trabajadores con cervicalgia, omalgia y lumbalgia)

Autores

Holtermann A, Hansen JV, Burr H, Sjøgaard K

Objetivos

Objective. The aim of this study was to identify prognostic factors for long-term sickness absence among employees with neck-shoulder or low-back pain.

Métodos

Methods. In 2000, a representative sample of Danish employees (N=5036) rated their average pain intensity in the neck-shoulder and low-back during the last three months on a 10-point scale; using a questionnaire, they also reported on physical and psychosocial work factors, health behavior, work ability and self-efficacy. Employees reporting pain intensity of ≥ 4 were considered to have musculoskeletal pain. As a result, we defined two populations to be included in our analyses: people with pain in the neck-shoulder (N=848) and low-back (N=676) regions. Data on long-term sickness absence of ≥ 3 weeks for the period 2001-2002 were attained from the Danish national register of social transfer payments.

Resultados

Results. One fifth of employees with neck-shoulder and low-back pain experienced long-term sickness absence during the two-year follow-up. Among employees with neck-shoulder and low-back pain, respectively, the main significant risk factors were (i) pain intensity [hazard ratio (HR)=1.12, 95% confidence interval (95% CI) 1.02-1.24 and HR=1.13, 95% CI 1.01-1.26] and (ii) heavy physical work (HR=1.68, 95% CI 1.21-2.33 and HR=1.41 95% CI 1.00-2.01).

Conclusiones

Conclusion. Preventive initiatives for long-term sickness absence should aim to reduce pain intensity and heavy physical work among employees with neck-shoulder and low-back pain.

Referencias

Refers to the following texts of the Journal: 1997;23 suppl 1:49-57 2009;35(1):1-5 1999;25(5):387-403 1998;24(2):145-152 2002;28(4):222-231 2009;35(5):334-341

Palabras Claves

Key terms. Chronic pain; employee; long-term sickness absence; low back; low-back pain; MSD; musculoskeletal disorder; musculoskeletal symptom; neck; neck-shoulder pain; pain; prognosis; prognostic factor; shoulder; sick leave; sickness absence.

Artículo Nº12

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2010;36(1):71-79

Título

Cancer incidence among short- and long-term workers in the Norwegian silicon carbide industry (Incidencia de cáncer entre trabajadores con exposiciones cortas y largas en la industria noruega de carburo silicosa)

Autores

Bugge MD, Kjuus H, Martinsen JI, Kjærheim K

Objetivos

Objective. A previous study among workers in the Norwegian silicon carbide industry, followed until 1996, revealed an excess incidence of lung and total cancer. The present study adds nine years of follow-up and focuses on cancer risk among short- and long-term workers, based on the assumption that these two groups have different exposure and lifestyle characteristics.

Métodos

Methods. The total cohort for this study comprised 2612 men employed for >6 months between 1913 and 2003. The follow-up period for cancer was 1953-2005. Short-term workers were defined as having <3 years of total employment in the industry. We estimated standardized incidence ratios (SIR) using national rates as the expected values.

Resultados

Results. Among the short-term workers, we observed an overall excess incidence of cancer [SIR 1.4, 95% confidence interval (95% CI) 1.2-1.6], with an excess of lung cancer (SIR 2.6, 95% CI 1.9-3.5) as the most important contributing factor. The long-term workers also had an excess incidence of total cancer (SIR 1.2, 95% CI 1.1-1.3) and lung cancer (SIR 1.7, 95% CI 1.3-2.2). We also observed an increased risk of cancers at other sites, specifically among short-term workers.

Conclusiones

Conclusion. We observed an increased risk of cancer (especially in the lung but also at other sites) among both short- and long-term workers. Dust exposure in the silicon carbide industry may have contributed to the increased risk among long-term workers, whereas the increased risk among short-term workers may be due to a combination of occupational and lifestyle factors.

Referencias

Refers to the following text of the Journal: 1999;25(3):207-214

Palabras Claves

Key terms. Cancer; cancer incidence; dust exposure; epidemiology; incidence; long-term worker; lung; lung neoplasm; neoplasm; Norway; short-term worker; silicon carbide industry; smoking

Artículo Nº13

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Título*Night work and breast cancer - results from the German GENICA study (Trabajo nocturno y cáncer de mama: resultados del estudio alemán GENICA)***Autores**

Pesch B, Harth V, Rabstein S, Baisch C, Schiffermann M, Pallapies D, Bonberg N, Heinze E, Spickenheuer A, Justenhoven C, Brauch H, Hamann U, Ko Y, Straif K, Brüning T

Objetivos**Objectives.** Some epidemiological and animal data indicate that night work might increase the risk for breast cancer. We have investigated the risk in a German population-based case-control study known as GENICA (gene environment interaction and breast cancer).**Métodos****Methods.** The GENICA study involved interviews to assess shift work information in 857 breast cancer cases and 892 controls. We estimated risks of employment status and night shift characteristics using conditional logistic regression models, adjusting for potential confounders. Resampling and bootstrapping were applied to adjust the risk estimates for a potential selection bias.**Resultados****Results.** Among 1749 women, 56 cases and 57 controls worked in night shifts for ≥ 1 year, usually in the healthcare sector (63.0% of controls). Female night workers were more frequently nulliparous and low-educated than day workers (28.6% versus 17.8% and 12.3% versus 9.2%, respectively). Fewer women in night work had ever used post-menopausal hormone therapy (35.7% versus 51.9%). An elevated breast cancer risk was not associated with having ever done shift or night work when compared to women employed in day work only [odds ratio (OR) 0.96, 95% confidence interval (95% CI) 0.67-1.38 and OR 0.91, 95% CI 0.55-1.49, respectively]. Women who reported >807 night shifts, the third quartile of the distribution among controls, experienced a breast cancer risk of 1.73 (95% CI 0.71-4.22). Night work for ≥ 20 years was associated with an OR of 2.48 (95% CI 0.62-9.99) based on 12 cases and 5 controls.**Conclusiones****Conclusions.** Long-term night work was associated with a modestly, but not significantly, increased breast cancer risk, while having ever done night work was not. The precision of the results was limited by a low prevalence of night work in this study population.**Referencias**

Refers to the following text of the Journal: 2008;34(1):5-22

Palabras Claves**Key terms.** Breast cancer; cancer; case-control study; GENICA study; Germany; night work; occupation; shift work

Artículo Nº14

Revista: ARCHIVOS DE PREVENCIÓN DE RIESGOS LABORALES

Título*Conjunto mínimo básico de ítems para el diseño de cuestionarios sobre condiciones de trabajo y salud***Autores**

Fernando G. Benavides, Marta Zimmermann et al.

Resumen

Dada la utilidad de las Encuestas sobre Condiciones de Trabajo y Salud, la realización de éstas en distintos contextos es cada vez mayor. El objetivo de este trabajo fue identificar y definir los ítems básicos que deben recogerse en los cuestionarios utilizados en este tipo de encuestas mediante un proceso de consenso estructurado entre expertos y a partir del cuestionario de la VI Encuesta Nacional de Condiciones de Trabajo. Se llegó a una propuesta consensuada acerca de los contenidos mínimos de un cuestionario de estas características, incluyendo las dimensiones de condiciones de empleo (9 ítems), condiciones de trabajo (58), amenazas y violencias en el trabajo (7) y estado de salud (11). Esta propuesta pretende servir de guía para la realización de nuevas encuestas.

Palabras Claves

Encuestas de salud, evaluación del riesgo, sistemas de información, salud laboral, condiciones de trabajo.