

Session: I. Injury

64 ACUTE PESTICIDE POISONING IN SIKASSO, MALI

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Objectives Pesticide poisoning has become a major public health problem worldwide, following the intensification of agriculture. The easy availability of highly toxic pesticides in the homes of farming communities has made pesticides the preferred means of suicide with an extremely high fatality rate. Similarly, the extensive use of pesticides exposes the community to both long-term and acute occupational health problems. The aim of this study is to describe the main characteristics of acute pesticide poisoning in Sikasso.

Methods A descriptive retrospective analysis of pesticide poisoning cases, recorded between 2002 and 2010 in Sikasso hospital, was performed.

Results A total of 47 acute pesticide poisoning cases were identified, constituting 10.6% of poisoning cases notified during the period of study. These products were responsible for poisoning of varying severity, depending on the nature of the compounds, duration and frequency of exposure. The average age of victims is 24 years. Almost 90% of reported cases result from oral exposure and 10% from inhalation. The risk is mainly related to the use of organophosphates. Among the cases for whom the evolution is known, 6 of them died. For other cases, the outcome was favourable with or without sequelae.

Conclusions Preventive measures should be taken to rationalise pesticide use, which pose a real public health problem, not only for users, but also for the general population.

65 THE INCIDENCE AND IMPACT OF RECURRENT WORKPLACE INJURY AND DISEASE, VICTORIA, AUSTRALIA

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Objectives To determine the incidence and impact of recurrent workplace injury and disease over the period 1995 to 2008 in Victoria, Australia.

Methods This was a population-based cohort study using data from the state workers' compensation system database. A total of 448,868 workers with an accepted workers' compensation claim between 1 January 1995 and 31 December 2008 were included into this study. Descriptive statistics were used to provide an overview of initial (first claim of a worker) and recurrent (second or subsequent claim of a worker) claims by gender, nature of affliction (injury or disease) and type of benefits paid (income replacement and medical expenses). Two outcomes were considered in this study: the rates of initial and recurrent injury and disease over the 14 year period; and the number of compensated days away from work, which was used as the indicator of 'work disability'.

Results Over the study period 448,868 workers lodged 972,281 claims for discrete occurrences of work-related injury or disease. 53.4% of these claims were for recurrent injury or disease. On average, the rates of initial claims dropped by 5.6% per annum, while the rates of recurrent injuries decreased by 4.1%. In total,

workplace injury and disease resulted in 188,978 years of loss in full time work, with 104,556 of them being for the recurrent injury.

Conclusions Recurrent work-related injury and disease is associated with a substantial social and economic impact. There is an opportunity to reduce the social, health and economic burden of workplace injury by enacting secondary prevention programs targeted at workers who have incurred an initial occupational injury or disease.

66 MEDICAL CERTIFICATION OF INJURED WORKERS BY GENERAL PRACTITIONERS IN THE STATE OF VICTORIA, AUSTRALIA: A DESCRIPTIVE STUDY

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Objectives To describe the medical certification practices of General Practitioners (GPs) in their interactions with injured workers receiving compensation under Victorian workers' compensation scheme over the period 2003–2010 in Victoria, Australia

Methods Compensation research database, containing workers' compensation administrative claims data and medical certification information was accessed to extract data for the period 2003 to 2010 for males and females. All claimants, 15–65 years of age with 'lost-time' claims only were included into analysis. Only the initial certificates were analysed. Medical certificates were divided into three groups: "unfit for work", "alternate duties" and "fit for work". Injuries and diseases were categorised into fractures, musculoskeletal (MSK) injuries and diseases, other (non MSK) traumatic injuries, back pain and strains, mental disorders and other diseases.

Results Over the period of 2003–2010 a total of 9,750 GPs issued 124,424 medical certificates to the injured workers. The majority of certificates (40.2%) were for MSK injuries and diseases, followed by back pain and strains (16.4%) and other traumatic injuries (15.6%). Almost two thirds of all certificates were issued to males; however in the mental disease category more than 50% of certificates were written to females. The vast majority of certificates (>74%) were "unfit for work", with 94% of them being for mental disorders. This is in contrast to the findings for MSK injuries and disorders (68.0%) or other diseases (53.0%). The duration of "alternate duties" certificates was ~4 days longer than "unfit for work".

Conclusions This was the first of planned analyses examining the medical certification practices of GPs. It already demonstrates different certification patterns and suggests that GPs may play an important role in returning injured workers back to work. Future analyses will examine changes in GP certification practices over time and patterns of health service utilisation by injured workers following medical certification.

67 DELAY-ONSET PARAQUAT-INDUCED KERATOCONJUNCTIVITIS IN A FARMER

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Background Paraquat (dipyridylum herbicide), used commonly in Taiwan, may cause severe pulmonary injury and lung fibrosis and be associated with Parkinsonism. Ocular exposure had caused acute, severe and prolong conjunctivitis with persistent fibrosis, pannus and vascular distortion due to superoxide radicals formation and NADPH depletion via redox cycling reaction as David McKeag's and others' cases. We will report a case with delay onset and relative better prognosis.

Case A 31 years old male farmer had his left eye spilled by Paraquat solution during preparing procedure on Sep 11, 2012. After washing eye by himself with clean water for about 5 minutes, no discomfort was noted initially. Unfortunately, he suffered from pain and tearing 3 days later. Mild conjunctivitis with slight reddish was noted in Ophthalmology Clinic. Focal steroid and antibiotics were used. Progressive worsening condition with more tearing, ocular pain, photophobia, erythematous hyperaemic change, discharge, eyelid swelling, vascular congestion, more papilla and follicles and infiltration had been noted since the 4th day. Eventually, local pulse steroid every day, focal steroid ointment every 2 hours and oral antioxidant were administered on the impression of Paraquat-associated keratoconjunctivitis caused by superoxide radical on 6th day. Pseudomembrane formation was found on 8th day. Condition was improving after intensive therapy. Symptoms subsided on 12th day and papillae, follicles and infiltration disappeared on 18th day. Only mild dry eye sensation, cicatrization on conjunctiva and no impairment of visual acuity were found 45 days later. No systemic effect could be found.

Conclusion Delay onset is different from acute severe conjunctivitis in McKeag's and other chemical and pesticide exposed ocular injuries. More intense therapy with local pulse steroid and oral antioxidant may improve prognosis with less sequelae. Close monitoring, early management should be considered in case of ocular exposure to Paraquat solution even without early symptom/sign.

68 INJURY RELATED DEATH OF PRODUCTION WORKER IN SHENZHEN FROM 2007–2011

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Objectives There are many production workers in Shenzhen, a city of immigrants, which is a public problem, should be concerned. This study aimed to explore the nature of injury related death of production worker, and provided basic interventional measures.

Methods The data were collected from the Death Surveillance System in China from 2007 Jun 1st to 2011 Dec 31st. The cause of injury related death was coded from V01 to Y98, and the occupation was production worker. The data were analysed by SPSS 15.0.

Results 517 deaths of production worker due to injury were identified from 2007–2011 in Shenzhen. There were 437 male workers (84.5%), and 80 female workers (15.5%). The average age was 34.72. The first five cause of injury death was W17, V03, V09, W20, and V02 (ICD-10, fall and traffic injury), accounted for 15.7%, 11.6%, 10.6%, 7.9% and 3.9%, respectively. The distribution of injury cause in different district was significant different ($p < 0.05$).

Conclusions Production worker is a dangerous job. More effective measures should be taken to prevent fall and traffic injury

for production worker. The aim population is the young male worker in special district.

69 BRAZILIAN CONSTRUCTION INDUSTRY: A CONTRIBUTION TO IMPROVE INFORMATION ON FATAL WORK ACCIDENTS

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Objectives Considering data sources and statistical trends on recent fatal cases resulting from workplace accidents in the Brazilian construction industry, herein two aspects are emphasised: a critical appraisal of the official registers on deaths resulting from work-related accidents, and a discussion on alternatives to achieve better information to support interventions in this sector.

Methods First, statistics and the variability in the profiles of death at work from 2000 to 2010 were analysed for construction industry according to the federal data sources on dimensions related to occupational health, working conditions and social security. Second, besides some difficulties in qualifying of fatal work accidents among the set of external causes of mortality, measurements has been taken in the description of work accidents classified into one of three categories: typical workplace accident; transport accident (that occurring during transport to and from work); work-related diseases.

Results In addition to presentation of specific rates and a set of indicators, a technical proposal is suggested for a more effective and realistic characterisation of the profile of mortality in workplaces by considering age, gender, education, occupation, as well the more frequent causes related to each type of accident. All of them as a condition to understand the main risks and to help teams of OSH facing the worst violence against workers.

Conclusions By reason of the high social and economic costs involving work accidents in Brazil, this study searches to provide a specific comprehension on fatal cases as well as some subsidies for the government to draw policies oriented to minimise risks in the workplaces of construction industry. However, mortality resulting from accidents in the informal labour market should be considered to overcome gap on information. After all, if the number of unemployed workers is underestimated, the number of underemployed has not been taken into account.

70 IMPROVEMENTS TO SURVEILLANCE OF WORK-RELATED INJURIES IN A DEVELOPING ECONOMY: A CASE STUDY FROM VIETNAM

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Objectives In Vietnam current public health statistics result in a substantial undercount of injuries and fail to distinguish injuries that occur while working. The objective of this study was to propose incremental changes in reporting to improve surveillance of work-related injuries in this rapidly developing country.

Methods Using nationally published data and the results of our own active surveillance research project in the Xuan Tien