

SAFEGUARD *update*

The fortnightly newsletter on Occupational Health and Safety

www.safeguard.co.nz

NEWS AND VIEWS

1 OSH questions drug tests

An OSH position paper on the effects of marijuana on workers says that smoking a joint within a few hours of starting work may leave a worker impaired, but no more so than from the effects of sleep deprivation at the end of a night shift.

The paper also suggests urine tests to detect marijuana use, now used in many New Zealand workplaces, are of little use in detecting impairment on the job because they cannot distinguish how recently the usage occurred. Impairment would be anticipated only if marijuana was smoked within a few hours of starting work, whereas urine tests will give a positive result even if the substance was used up to three weeks beforehand.

The paper, prepared by OSH's health services team, draws on local and international research to determine how marijuana affects work performance, and to assess the effectiveness of drug testing regimes. It concludes that, while impaired workers may represent a hazard for which management procedures are required, the level of impairment associated with the drug is "modest", and a positive urine test cannot be taken as any indication of recent use.

Senior Department of Labour medical practitioner Dr *Chris Walls* told *Update* that the paper was a response to a "plethora" of workplace drug testing programmes, introduced by employers who cited the HSE Act as justification.

"OSH Health Services frequently deals with queries and complaints about these programmes, many of which appear poorly designed and administered, and are based upon incorrect premises," he said. "Many of them seem to have little to do with health and safety in the workplace."

The paper, *Impairment created by Marijuana (Cannabis) use in the workplace and appropriate biological testing*, recommends that any provisions for drug and alcohol testing should be part of a broader policy, addressing not only health and safety concerns but also disciplinary, privacy and employment contract matters.

It cites scientific evidence which found that while marijuana use could adversely affect short-term memory, attentiveness, reaction time and motor skills, the peak level of impairment after a single joint was no more than that associated with a blood-alcohol level just above the legal limit for driving, or with moderate sleep deprivation such as would occur after working a night shift. Long-term heavy use could be associated

with subtle changes in memory, attention and cognition.

"The significance of such impairment would be governed by the complexity of the employment tasks and the environment they occur in," it says, noting that a study of airline pilots found a significant deterioration in their ability to operate a flight simulator for some four hours after smoking a joint, and a measurable drop in performance as much as 24 hours afterwards.

"It is not, in OSH's view, permissible for safety critical or safety sensitive jobs to be undertaken by impaired workers."

The situation is complicated, however, by the absence of reliable ways to determine marijuana-related impairment. The paper states that urine testing is of "no practical use" in identifying recent drug use, as positive tests can be returned as much as three weeks afterwards, and the level of THC (the active ingredient) in such samples is influenced by a range of factors, including the content of the cigarette, degree of inhalation, previous drug use, fluid intake and metabolic processes.

A gas chromatography analysis of blood serum samples, taken at the same time as the urine specimens, may help pinpoint those who have smoked cannabis within the preceding 12 hours. The paper recommends that only those who return positive results in both tests should be disciplined, and suggests a course of drug and alcohol counselling, combined with a verbal warning and the opportunity to consult EAP services as an appropriate response.

Medical and personnel matters related to a workplace drug and alcohol policy should not be handled by the HR department, it says, but put in the hands of an occupational health nurse or other medical professional.

2 Cancer in meatworkers

Twenty thousand New Zealand meatworkers are coming under scrutiny as part of a world study to determine why workers in the industry have an abnormally high incidence of several types of cancer.

Research over more than a decade has identified increased rates of all leukaemias, non-Hodgkin's lymphoma, lung and laryngeal cancer and soft-tissue sarcoma among abattoir workers, butchers and other meatworkers in many parts of the world. As a result the *World Health Organisation's* International Agency for Research on Cancer is co-ordinating an investigation which will see 13 countries pool their findings in a bid to trace the causes.

Dave McLean from *Massey University's* Public Health Research Unit is researching the New Zealand end of the project, funded by the Health Research

Council. He will look at cancer rates among present and former meatworkers over the past 30 years, and will compare the work practices and possible carcinogen exposures of those who developed the disease with those who did not.

He told *Update* that the problem has been known in New Zealand since the mid-1980s, when epidemiologist Professor **Neil Pearce**, director of the Massey research unit, used data from the National Cancer Registry to investigate possible links between types of cancer and the last known occupation of those who developed them.

"At the time it was really a chance finding, but similar effects were reported from a big cohort study in the United States, and there have been quite a lot of papers published around the world, showing meatworkers at increased risk for a range of cancers."

It was first thought that the chemicals used to process meat and hides were the likely source of the problem, but subsequent study has focused attention on animal viruses and other zoonotic exposure.

"A second wave of studies found no strong association with chemical use. Our industry, for instance, doesn't use chemicals as much as the European one does, but the same effects have been found all around the world."

A study by Wellington pathologist **Peter Bethwaite** in the early 1990s lent weight to the theory that animal pathogens were involved. It found that abattoir workers had double the usual risk of contracting leukaemia, but those who had direct animal contact were five times more likely to get the disease. Butchers also had an abnormally high incidence, but only if they were involved with slaughtering animals and handling whole carcasses. Farmers also have an above average rate of leukaemia, McLean says, despite enjoying significantly lower rates for some other cancers.

Although the research project is unlikely to be completed for four years or more, eradication of any pathogens linked to the cancers may not be a difficult operation.

"It's even possible that New Zealand has already more or less eradicated the cause," McLean says. "One of the viruses that has been talked about is Bovine Leukaemia Virus, which has been removed from herds by culling over the last few years. It's been done solely for marketing reasons - there is no proof that the virus causes disease in humans, but it didn't sound good to be taking milk from cows infected with the virus. It just may turn out that we have already dealt with it."

③ **Tracking workplace cancers**

A more general investigation into work-related cancers has finally got the go-ahead (see *Update* 152, item 3).

The 12-month pilot project, prompted by concern that

most occupational cancers are not being identified, was due to begin almost a year ago, but was put on hold when the *Health Funding Authority's* Otago ethics committee refused access to its cancer register, claiming that using the data to contact individual patients would breach privacy laws.

Project co-ordinator, OSH medical consultant Dr **Evan Dryson**, told *Update* that the regional ethics committees has now agreed to supply data from the register on condition he makes initial contact with doctors in each case, and speaks to patients only with their approval. Patients who agree to an interview will be contacted by an OSH occupational health nurse, who will question them on their working background, looking for links between their disease and possible workplace exposures.

Dryson said the study arose because overseas statistics indicated a certain percentage of cancer cases resulted from occupational factors, but few were reported to New Zealand's Notifiable Occupational Disease System (NODS).

"In the nine years that NODS has been operating it's quite clear that cancers are not being reported, except for the asbestos ones. We know there are other cases that are being missed, and this is a concern because occupational cancers are, by definition, preventable."

The study will focus on conditions most likely to be associated with workplace exposure - cancers of the bladder, upper respiratory tract, liver and brain. Fortnightly updates from the national cancer register will keep Dryson informed of new cases and allow rapid follow-up.

"If, for instance, we have someone with bladder cancer and find that 15 years ago they worked as a drycleaner, that is a known risk factor and gives us a starting point. Once we identify a workplace where we believe a cancer has been caused we can work to eliminate the causes."

In conjunction with the study, Dryson says the new NODS cancer panel, which he convences, is looking to raise awareness of occupational cancers to make people more aware of risk factors and preventive measures.

"As a result of this study we should, for the first time ever, actually get a handle on what sort of occupational cancers there are in New Zealand so we can do something about future cases."

④ **It's the auditor, not the tool**

Never mind the audit tool, it's the way it is used and the competence of the auditor that will determine success, according to health and safety consultant **Jim Lycett**.

His remarks follow the debate reported last issue on

S A F E G U A R D m a g a z i n e



SALES CONSULTANT FOR SAFEGUARD PUBLICATION

Yes! **SAFEGUARD** Publications is seeking to appoint a full time media salesperson to its vibrant, friendly team based in Auckland