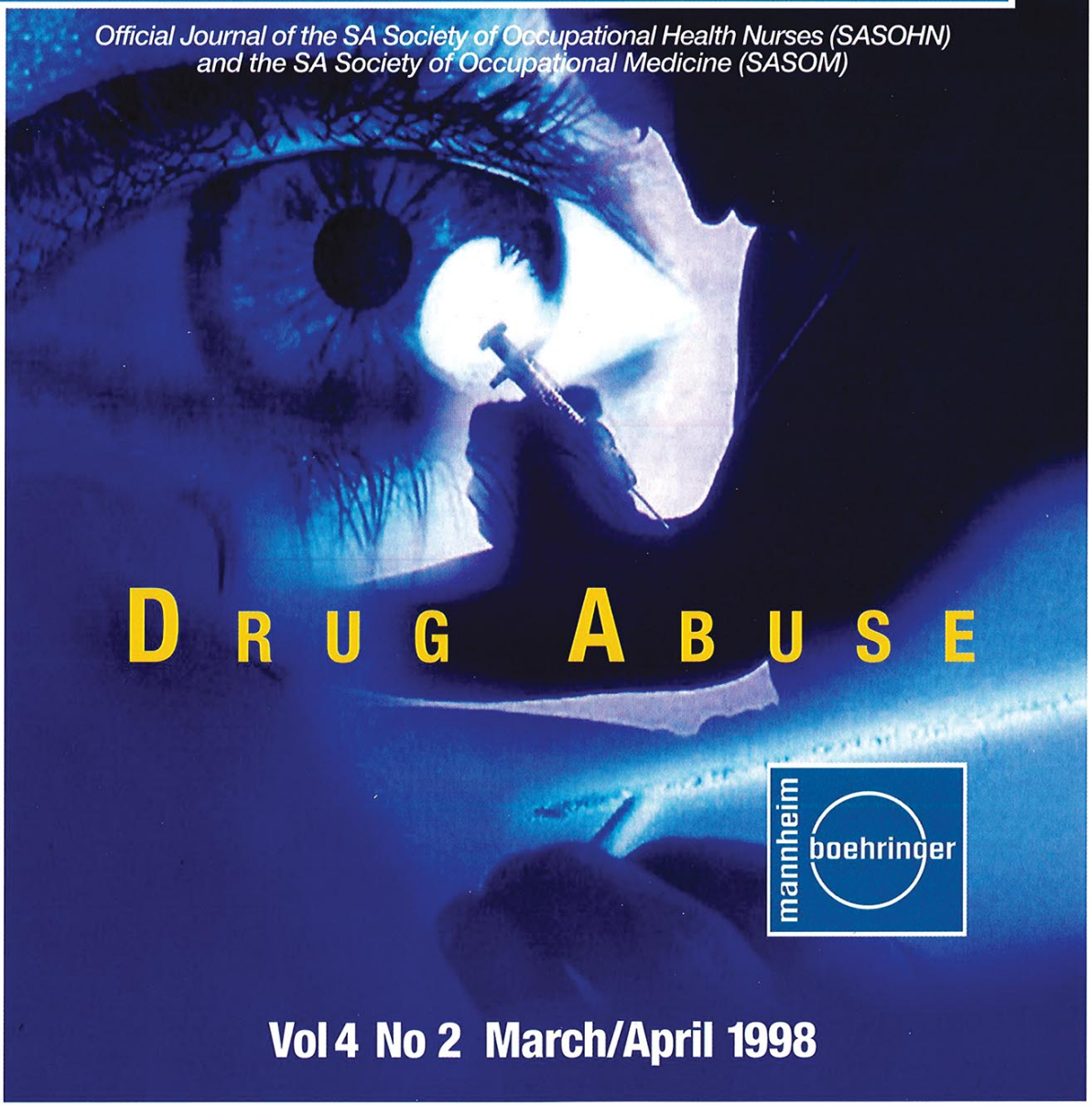
Occupational HEALTH

SOUTHERN AFRICA

Official Journal of the SA Society of Occupational Health Nurses (SASOHN)
and the SA Society of Occupational Medicine (SASOM)



Vol 4 No 2 March/April 1998

ISSN 1024-6274

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Computerised statistics show that last year's exhibition attracted 3 786 visitors. Top calibre visitors included engineers, environmental managers, general managers, loss control officers, managing directors, occupational health consultants. Occupational hygienists, quality control managers/ officers, safety managers, traffic officers

This year's aim is to broaden the show's product categories by including fire, water technology and waste/ effluent sections which will be part of the environmental element of the exhibition.

With international support and a vastly expanded publicity campaign will afford exhibitors maximum trade exposure, both national and international.

Safety, Health and Environment '98 is supported by the following associations: ASOSH, IRCA, Department of Occupational Health (Gauteng), Department of Minerals and Energy, Department of Water and Forestry, Fire Fighting Equipment, Fire Protection Association of SA, Institute of Fire Engineers, Mine Workers Union, Midrand Fire Department, National Union of Mine Workers, SPA Fire Fighting College.

The show will run alongside a two-day conference with IRCA (Pty) Ltd, ASOSH and, hopefully, SAPEMA, as well as a one-day conference fucused on fire to be hosted by the institute of Fire Engineers

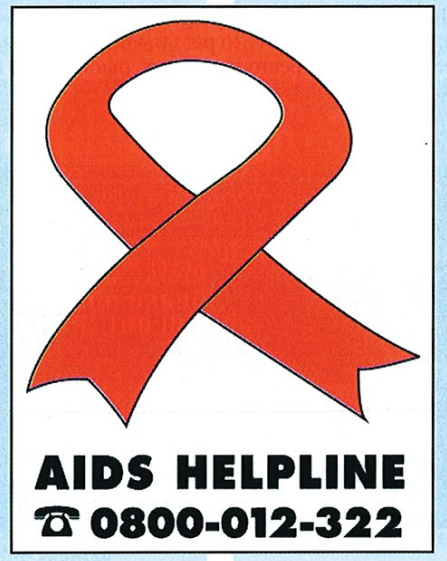
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continued on next page

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Subscriptions
R75.24 per annum (incl VAT)
R100.00 per annum (Africa)
R150.00 per annum (overseas subscriptions)
Tel: (011) 791-2615/6/7

Published by
Cannon Medical Media
PO Box 1307, Ferndale, 2160
Tel: (011) 791-2615/6/7
Fax: (011) 791-2618
e-mail: cmm@iafrica.com

Official journal of
The SA Society of Occupational Health Nurses (SASOHN)
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and

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ISSN 1024-6274

Occupational HEALTH SOUTHERN AFRICA

Vol 4 No2 March/April 1998

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Change

We live in a world, a country and an environment which are changing rapidly and the only factor that is constant in all these in the inevitability of change itself. Occupational health is a discipline which is undergoing continuous and ongoing change. The amount of information now available is massive, although this is becoming more easily available through new technology such as the internet. There continue to be changes to legislation which creates the framework within which the regulatory agencies, employers and employees must interact. And there are numerous other areas of change. In all these, the occupational health practitioner must strive to stay abreast and to implement them effectively.

One of the specific areas of change that is unfolding is the focus on substance abuse, mainly that of alcohol and cannabis. The journal has featured alcohol previously, whilst this edition has focused in cannabis. Pienaar gives a useful overview of cannabis and how it impacts on areas such as the Labour Relations Act. Bennetts and MacIntosh give a practical and well thought out approach to the introduction of a substance abuse policy for drivers of hazardous substances. Many could learn from their experiences. Substance abuse has always been a difficult area to control due to the ethical conflict between the maintenance of discipline in the interests of safety by management as opposed to rehabilitation and treatment of ill-health by medical personnel. It seems likely this issue may become simpler for medical personnel in the future due to enforcement of testing for substance abuse by statute or law. One of the first areas to be affected will be that of the new National Road Traffic Act and its Regulations.

Change has also come to the journal and I would like to take this opportunity of thanking the previous editor, Chris van Selm, for his hard work and effort at the helm of the editorial board which has brought the journal from its humble beginnings to its present position in the short space of 3 years. This is no mean feat for somebody who runs a busy private practice. At the same time I wish to welcome Terry Geddes onto the editorial board. Terry is well known to many of us and was Secretary to SASOM for many years. We look forward to his ideas and experience.

To me one of the few disappointing aspects of the journal has been the few letters that have been sent in by readers. One of the strengths of any discipline is when there is vibrant debate and this can be aired through the correspondence columns. I appeal to members of both Societies and other readers to write to the journal to express their views or to ask for advice through the letters column.



Mike Baker
HONORARY EDITOR

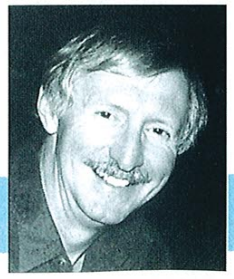
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Mike Baker
HONORARY EDITOR

SASOM 50 years ago

The inaugural meeting of what was, in those days, called the South African Society of Industrial Health was held on 26 July 1948 at the University of Pretoria, with 11 members of Congress present.

Leafing through the yellowing pages of the first minute book, one is struck by an overwhelming sense of *déjà vu.*

Problems of recruiting members dominated early meetings although it was stressed (? rationalised) that quality was more important than quantity. The Society had swelled to 24 members within a year, but a decade and a half later was barely double this number and 20 years after it started the Executive was sorely tempted to throw in the towel and disband.

The 1948 membership 1£ (one pound) fee must have represented a significant sum at the time and within 4 years the Society had dropped it to 10/- (ten shillings) - certainly no *déjà vu* there!

However, then as now, moneys are difficult to collect and for most of this early period the records show that about half the members were in arrears.



Despite the small numbers, members were active - initially meetings were frequent although there are numerous references to the poor attendances.

Recognition as a speciality was actively sought via the College of Physicians, Surgeons and Gynecologists, and the Executive was farsighted enough to be pressing for a higher standard of examination which would lead to a Fellowship rather than a Diploma. However, they kept their feet on the ground and organised an introductory series of lectures on Occupational Health at the SAIMR while they brought constant pressure to bear on several universities to offer Diploma courses.

The early minutes also show the desire to have closer relationships with other groups and overtures to the Mine Medical Officers' Association were made within a year of two of the Society's beginning. In 1952, almost as soon as NOSA had been formed, the Society approached it, offering close ties.

Some of the items are, of course, specific to the times and give us a fascinating glimpse of the industrial medical world shortly after the end of World War II. In 1949 it was asked that consideration be given to workers suffering from the results of mustard gas poisoning while their factories were run on a war footing. And those who feel that the medical profession has lost a bit of status in the last few years would no doubt be comforted by discussions that were aired in the early 1950s when the *Journal of Personnel Management* had indicated that industrial medical services should be controlled by personnel officers. Federal Council was accordingly asked by the Society to make the following representation: "The Medical Officer should have access to the highest executive officer in an industrial organisation and be answerable to this officer alone"!

That it was not "all work and no play" can be seen from the elegant menu of an AGM Dinner in the early 1960s which concluded with

Les Grandes Liqueurs
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- the latter not very PC perhaps, nowadays, but it does have a certain style; a couple of years earlier it would no doubt also have included the Loyal Toast!

And one's final impression? - *plus Ça change...*

Dr Terry Geddes, Johannesburg

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Department of Transport notice

Implementation of the PrDP (Professional Driving Permit)

Regulation 251(2) of the Road Traffic Act, 1989 (Act 29 of 1989), exempted drivers of motor vehicles owned by state departments, provincial administrations and local authorities from obtaining a Public Driving Permit (PDP).

The professional driving permit (PrDP) will supercede the PDP. It will be linked to the credit-card-type driving license. Currently drivers of motor vehicles owned by state departments, local authorities and provincial authorities are exempted from the requirements of the PDP. These drivers will not be exempted from the PrDP requirements.

The national Department of Transport is going to implement the different PrDP categories in different stages as summarised below.

The implementation of the PrDP goods category will automatically require drivers who were previously exempted in terms of Regulation 251(2) of RTA, 1989 (Act 29 of 1989) to obtain a PrDP. Therefore, the national Department of Transport wishes to impress on state departments, local authorities and provincial authorities to take appropriate logistical steps (e.g. budgeting for such an eventuality) and ensure that such drivers acquire PrDPs during the implementation thereof, i.e. 1 March 1998.

It should be noted that Regulation 108(4) of the Road Traffic Act 1996 (Act No 93 of 1996) published for comment by Government Gazette No 18383, exempts the following types of persons from obtaining a Professional Driving Permit:

(a) a traffic officer or examiner of vehicles while performing his/her duties;

(b) a person driving a motor vehicle for the purpose of testing such motor vehicles on public road in the performance of his/her duties as a motor dealer; and

(c) a person driving a hearse.

In conclusion, the national Department of Transport will appreciate it if provincial administrations can take reasonable measures and ensure that those who were exempted obtain a PrDP during its implementation. Such measures will obviate the difficulties that might emerge with law-enforcement agencies.

Summary including medical aspects

A. New card (credit card type) PrDP license for the following:

- New applicants PDP (Goods – 1 March 1998)
- On lapse of old license – PDP (Goods – 1 March 1998)
- PDP (passengers) - March 1999
- Dangerous/ Hazardous goods will be implemented at a later stage due to the ongoing discussions with all role-players.

B. PDP goods applicant will not require the new medical or drug screen, but examination as per old medical examination system.

C. The new medical certificate examination and drug screen produced by SASOM and the transport committee has been accepted in principle but will be introduced only later (? March 1999). The document is available from Dehlia Müller at SASOM national offices.

D. The reference document for training, *Medical aspects of fitness to drive*, is currently being revised by MASA FPD (Foundation for Professional Development) in conjunction with SASOM.

E. The SASOM scientific committee on Transport and the Transport-related industry will be arranging a ½ day seminar to debate the project further in the future.

For further information contact Mike Muthula (Directorate: Traffic Legislation), tel: (012) 309-3802, fax: (012) 325-5680 or Dehlia Müller (SASOM) tel/fax: (012) 664-1460.



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Risks from hazardous chemicals

A new guide for South African business

Chemical substances are used in almost every industry and undertaking in South Africa. Most of these substances, if not handled correctly, can give rise to health risks for those working with them. The Department of Labour introduced the *Regulations for Hazardous Chemical Substances* under the Occupational Health and Safety Act in August 1995. This requires employers to carry out a risk assessment to determine the necessary precautions to be taken to protect the health of workers potentially exposed to hazardous substances.

Unfortunately it has been the experience of the Department's inspectors that many companies handling hazardous substances do not recognise them as such and consequently do not realise that the Regulations apply to them. Even in workplaces where it is recognised that the Regulations do apply, there is often confusion over the proper use of the risk assessment technique. The Department has noted a tendency, even in some Approved Inspection Authorities, to confuse risk assessment with exposure monitoring.

The training of occupational hygienists equips them to carry out occupational health risk assessments in a logical and competent manner. The Institute of Occupational Hygienists of Southern Africa (IOHSA) therefore decided that other interested parties, including employers, health and safety representatives, and other safety and health practitioners would benefit from some clear guidelines on this seemingly complex but, in reality, very simple process.

Assessment of the risks from hazardous chemical substances is a common requirement in the health and safety legislation internationally. Some years ago the UK Health and Safety Executive produced a very clear guideline on how to carry out an appropriate assessment of the health risks associated with exposure to hazardous substances. IOHSA have received permission from them to modify this guideline to match South African legislation and conditions and have now published it as the *Guide to Conducting an Occupational Health Risk Assessment.*

The 40-page guide is written in simple language and uses many examples from a wide range of typically South African work situations. The emphasis is on a practical approach to conducting effective assessment of occupational health risks.

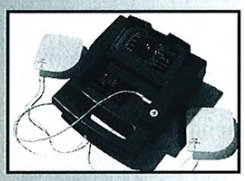
The Chief Inspector: Occupational Health and Safety of the Department of Labour writes in the foreword: "The pragmatic view of risk assessment matches the thinking of the Department when Regulations were drafted".

The President of IOHSA, Jace Naidoo, states, "As South Africa catches up with international norms in occupational health and safety, a considerable amount of new legislation will have to be introduced. The interpretation of regulatory requirements into practical actions will become even more important if the legislation is to be implemented effectively by industry. We believe that the IOHSA initiative in producing the occupational health risk assessment guidelines is a step in the right direction. If successful, we will consider extending this to other aspects of the health and safety legislation where our members have the expertise and practical experience to advise Industry on sensible actions to take to meet their legal obligations."

The guide can be ordered from

The Secretary, IOHSA, P O Box 35764, Menlo Park, 0102, Tel (012) 46-7424.

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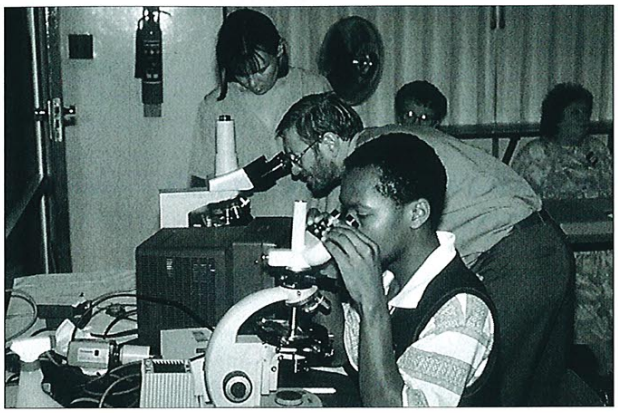
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WHO/South Africa Technical Cooperation Programme: Occupational Health



Delegates during practical tuition

Microscopy Training Course Presented At the NCOH, 11-14 November 1997

Mr Barry Tylee, the Head of the Minerals and Fibres Division of the Health and Safety Laboratories (HSL), UK, and his colleague, Dr Garry Burdett, gave a four-day microscopy course at the NCOH. The course was concerned with the different methods of identifying and analysing fibres from bulk specimens and the environment. Delegates received lectures, practical demonstrations and one-on-one discussions and practical tuition during the course of the four days. Mr Tylee concentrated on the uses of the light microscope while Dr Burdett confined his sessions to his field of expertise, the electron microscope. On 13 November they gave an open lecture at the NCOH, entitled *The risk from asbestos; current initiatives in the UK and Europe*, which was attended by a diverse audience including private occupational health practitioners. The HSL is the laboratory arm of the HSE in the UK and we were privileged to have two such knowledgeable speakers and accomplished teachers.



Barry Tylee

Course presented on the health effects and risk assessment of the biological contamination of the indoor environment

Dr Alice Weissfeld and Ms Paula H Vance from Microbiology Specialists Inc., USA, together with local speakers, presented this very successful course in Johannesburg 3-4 November, Durban 6-7 November and Cape Town 10-11 November 1997. The course covered more than twenty current and emerging topics on indoor biological agents. Local speakers included Mr Vali Yousefi, NCOH, Mr Rob Stewart, University of the Witwatersrand, Dr Nceba Gqaleni, University of Natal, and Dr Rodney Ehrlich, UCT. Approximately 102 delegates attended the course. A number of delegates stated that such a course in South Africa was long overdue and it was hoped the course could be repeated in future years.

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Recommendations pertaining to the use of viral vaccines: influenza

Review of influenza activity - 1997

Gauteng area (National Institute for virology)

The 1997 influenza season in Gauteng was relatively quiet with comparatively low absenteeism recorded in school and industry. Some 160 isolations of influenza were made from specimens sent to the National Institute of Virology during the course of the year. The majority of the isolates and the predominant cause of morbidity was influenza A (H3 N2) - 80 isolates followed by 56 influenza B isolates and only 3 influenza A (H1N1) isolates were obtained (the latter was a relatively minor contributor to the 1997 influenza season). Influenza isolates commenced in mid May and continued until 3 September.

Cape Town area (Department of Medical Microbiology, University of Cape Town)

Noticeable influenza activity started in Cape Town towards the end of July 1997. There were sporadic cases of influenza in the community including staff and family of laboratory staff. A total of 6 isolations have been made from staff, community patients of general practitioners and routine viral culture on children in hospital for respiratory infections. Two were type A and four were type B. Influenza activity continued through August and September but diminished in October.

Durban area (Department of Virology, University of Natal)

The winter influenza season in Natal commenced in mid-May with influenza B (Beijing-like) isolates. Some 20 of these isolates were made in May and June. Influenza A (H1N1) isolations were made in June and continued until September.

Recommended vaccine formulation

The following strains have been recommended for the 1998 influenza season by the World Health Organisation Collaborating Centre for Influenza Reference and Research, Melbourne, and the Southern Hemisphere Network for Influenza Vaccine:

A/Bayern/7/95 (H1N1)- strain

B/Harbin/7/94- like strain *OR* B/Beijing/184/93-like strain

A/Sydney/5/97 (H3N2)-like strain

Indications

1. Persons (adults or children) who are at high risk for influenza and its complications because of underlying medical conditions and who are receiving regular medical care for conditions such as chronic pulmonary and cardiac disease, chronic renal diseases, diabetes mellitus and similar metabolic disorders, and individuals who are immunosuppressed.

2. Residents of old-age homes, chronic-care and rehabilitation institutions.

3. Children on long-term aspirin therapy.

4. Medical and nursing staff responsible for the care of high-risk cases.

5. Adults and children who are family contacts of high-risk cases.

6. All persons over the age of 65 years.

7. Any persons wishing to protect themselves from the risk of contracting influenza, especially in industrial settings, where large-scale absenteeism could cause significant economic losses.

Dosage

Adults Whole or split product or subunit vaccine: 1 dose I.M.

Children (<12 years) Split-product or subunit vaccine: 1 dose I.M.

Children <9 years who have never been vaccinated should receive 2 doses 1 month apart.

Contraindications

1. Persons with a history of severe hypersensitivity to eggs.

2. Persons with acute febrile illness should preferably be immunised after symptoms have disappeared.

3. The vaccine, although considered safe during pregnancy should, nevertheless, be delayed until the 2nd or possibly 3rd trimester to minimise the theoretical risk of teratogenicity. However, if high-risk indications exist, delaying immunisation should be avoided.

Timing

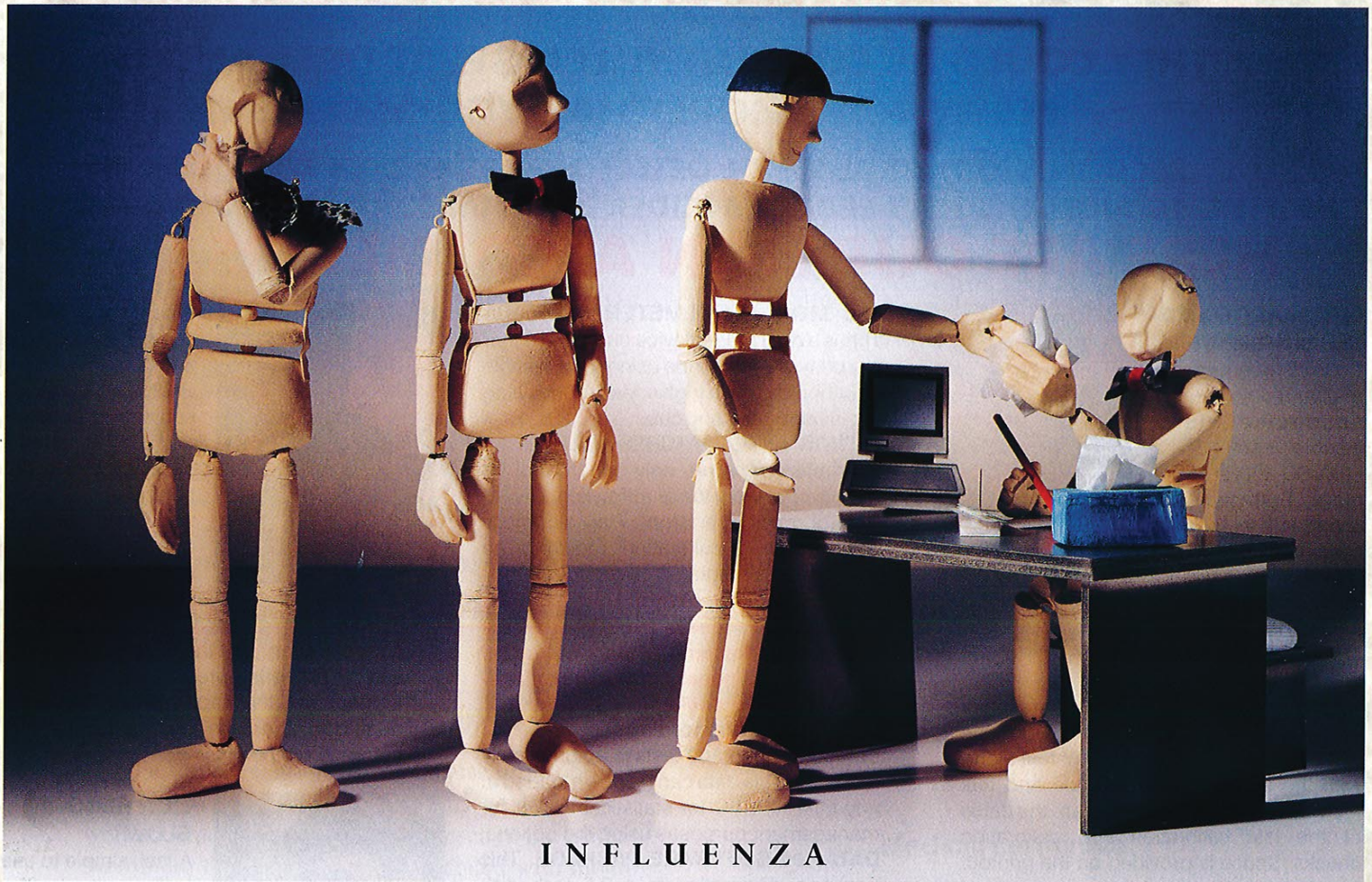
Vaccines should be given sufficiently early to provide protection for the winter. A protective antibody response takes about 2 weeks to develop.

Chemoprophylaxis

In cases where vaccine has not been administered, consideration should be given to the use of supplementary chemoprophylaxis with amantadine in certain high-risk individuals, e.g. patients with chronic lung and heart diseases. Amantadine should be administered in a dosage of 200 mg daily in two divided doses for the duration of the epidemic activity, i.e. approximately 6-12 weeks. The dosage should be reduced in persons with renal disease and persons over the age of 65 years.

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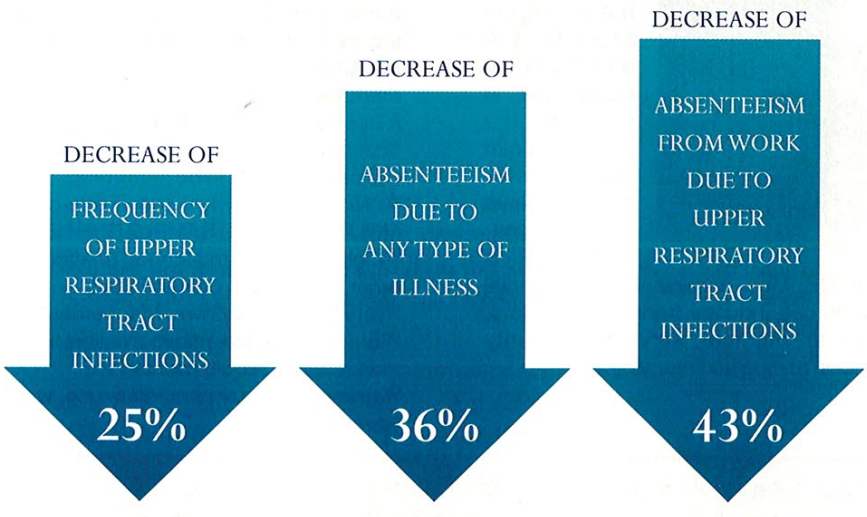


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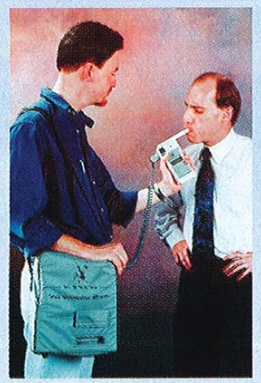
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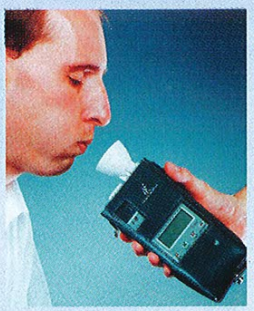
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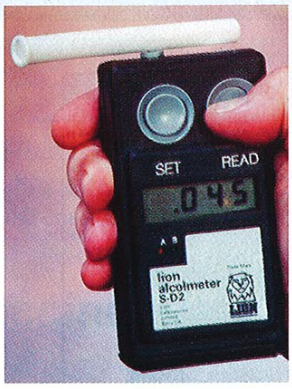
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Substance abuse amongst drivers - the *Engen* experience

Ann Bennetts, Doreen Macintosh
Engen Petroleum Ltd, Cape Town

Occupational Health SA 1998; Vol 4, No 2: 11- 13

The statistics on misuse and abuse of alcohol amongst all categories of South African drivers is well documented and much publicised in the media. So too are the consequences associated with motor vehicle accidents (MVAs) and the impact this has on our economy. (National Trauma Research Programme provisional results for 1997 indicate more than 50% of road accidents were related to alcohol and 18% to drug usage.)[1]

In an article on the issue published in *Fleetwatch*,[2] Scott reported that common problems found in transport companies included the following:

- A lack of company policy
- Lack of standard health profiles
- Health not being defined as a risk
- A total lack of a proactive stance.

Fortunately, in our opinion, none of these apply to Engen Petroleum Ltd. Following the introduction of a formal occupational health service in the company and the compilation of a *Driver's health risk profile,* our initial Driver Health Policy, drafted in a collaborative manner and based on the South African Society of Occupational Medicine (SASOM) guideline, was introduced in 1991.[3]

The intent was to ensure compliance with all the relevant legislation (Road Traffic Act (29 of 1989), Hazardous Substances Act (No 15 of 1973, General Regulations 10A and 11) and Occupational Health & Safety Act (No 85 of 1993) and the early identification, diagnosis and referral for appropriate treatment of any underlying health problem that could adversely affect the driver's ability to continue performing assigned duties safely and effectively.

The draft policy document was circulated and discussed at all management levels. Perhaps the most important discussions, and key to the successful implementation of the policy, were those held with the shop stewards' council at the National Bargaining Forum. Initially the shop stewards were very suspicious of the company's motives and expressed concern that this might be a means for management to simply rid themselves of drivers with health problems. We were fortunate indeed to have a number of shop stewards on the council who were employed in driver positions. All were familiar with the content and terminology on the medical certificate (Figure 1) issued annually by a medical practitioner confirming their 'fitness to drive'. Very little resistance was experienced once we were able to convince them that the company had no other ulterior motive but to enhance the health of our drivers and to minimise our risk.

Medical certificate

I (initials and surname in block letters) .....

.....

qualifications.....

medical practitioner of (address).....

.....

have examined (initials and surname of applicant).....

.....

of (address).....

.....

and, to the best of my knowledge, he/she is not suffering from any of the following diseases or disabilities:

(a) uncontrolled epilepsy;
(b) liability to sudden attacks of disabling giddiness or fainting owing to hypertension or any other cause;
(c) any form of mental illness to such a degree that it is necessary that he/she be detained, supervised, controlled and treated as a patient in terms of the Mental Health Act, 1973 (Act 18 of 1973);
(d) any condition causing muscular inco-ordination;
(e) uncontrolled diabetes mellitus;
(f) defective vision;
(g) any disease or disability which is likely to render him/her incapable of efficiently driving and controlling any motor vehicle without endangering public safety.

Further, to the best of my knowledge, he/she is not addicted to the use of any drug having a narcotic effect or the excessive use of intoxicating liquor.

Signature..... Date.....

Through various communication forums, the policy was then discussed with all drivers, together with depot managers, occupational health personnel and shop stewards. A copy of the policy was made available to each driver. Similar levels of mistrust and misapprehension were found and reassurances had to be given frequently.

In December 1994, the policy was revised and, in a number of areas, specific screening tests were included to indicate compliance with standards defined in the policy and to assist examining practitioners. The most important of these were the indicators for possible substance abuse. A gamma glutamyl transferase (GGT) is required at both pre-employment and periodic (annual) medical examinations and urinary cannaboids at pre-employment and doctor's discretion for periodic medicals.

The same communication strategy was adopted to ensure that the rationale for the various amendments to the policy was communicated to and understood by all stakeholders. The findings (Table 1) more than justify the bold step taken by the company despite the many difficulties encountered.

Table I: Drug and alcohol screening results

	1995		1997	
Total done	97		142	
GGT				
0 – 65 u/l	65	(67%)	125	(88%)
66 – 129 u/l	19	(20%)	7	(5%)
130 – 300 u/l	5	(5%)	6	(4%)
> 300 u/l	8	(8%)	4	(3%)
Urinary cannaboids				
Positive	12	(12.3%)	4	(3%)

Difficulties experienced

Lack of knowledge about alcohol

Generally, a very low level of understanding about alcohol was found. Few accepted that it was a drug or knew how it was processed or eliminated by the body, nor had insight into the potential impact on health if abused. All viewed it as socially acceptable and justified its use. Most were aware of the legal limits contained in the Road Traffic Act but did not comprehend the impact a conviction, endorsement/suspension of their license in a private capacity would have on their jobs. Education about 'problem drinking' is insufficient. There needs to be a commitment to lifestyle and behaviour change. In our society, sustaining this change is extremely difficult.

Reluctance/refusal to go for laboratory screenings

A few drivers initially refused to comply with the requirements of the revised policy and many voiced their opposition to the screenings, primarily because of a guilty conscience and/or fears about the threat to their job security if results were unacceptable. Some were extremely hostile towards both occupational health staff and management and the level of mistrust was significantly raised.

Confidentiality

Whilst the confidentiality of results is respected as far as possible, when the safety of the public is at risk there is an obligation on the occupational health staff to inform management. This is to protect both the employee and the company from any possible civil and criminal litigation following an accident. However, we found that the sharing of results amongst drivers was common and peer-group pressure to reduce abnormal results had a very positive effect at one depot.

Written consent had to be obtained from every driver, stating they understood the importance of health checks; agreed to both blood and urine being taken; and that they were aware that confidentiality would be breached in the interest of public safety.

Level of interest and standards of medical examination performed by medical practitioners

Despite circulating the policy to examining doctors and requesting depot managers to ensure doctors were aware of the contents of the policy, many initially issued certificates without the laboratory test being conducted. Some even failed to take an adequate history or ask any relevant questions about substance use/abuse. Many practitioners appear to be unaware of the seriousness or consequences of making a false declaration on medical certificates issued.

Inadequate laboratory facilities in outlying areas

Due to the geographical spread of our depots, many of those situated in the rural areas did not have ready access to laboratory facilities. Specimens had to be sent to larger centres, causing a delay in results being available. In some instances, medical certificates had to be revoked.

Laboratory reference ranges

The upper limits for normal values for blood gamma glutamyl transference varies from laboratory to laboratory. In view of this, the doctor's discretion is once again required. Temporary suspension from driving duties was recommended if a result was double the maximum limit for a specific laboratory. Further investigation could include further blood tests, review of medical history and assessment of work performance, behaviour change, review of absenteeism and sickness pattern.

Cultural differences

Three of the drivers tested positive for urinary cannaboids use in 1997 denied ever having used cannabis. Further investigation revealed that all had consulted traditional healers for a variety of reasons and were taking 'muti' in an attempt to resolve their problems. All were advised to stop immediately, and on retesting 4 and 6 months later were all negative. There is little to be found in the literature about the impact of use and levels at which it would be considered unsafe to drive.

Alcohol management

Alcoholism is recognised as a 'disease of denial' and employees who are problem drinkers may be able to conceal the extent of the problem for a lengthy period of time. The earlier a drinking problem is identified, the sooner assistance can be offered. Surprisingly, when confronted, the majority of drivers were generally honest about their alcohol intake. Interventions are always aimed at return to acceptable work performance and are curative rather than punitive. In some cases of misconduct, deferment of disciplinary action was recommended pending the successful outcome of the intervention.

However, regular follow-up and monitoring are required and provision for relapse tolerance must be well defined. Sadly, support structures other than immediate family and the church to aid recovery are nonexistent in large areas of our country. Managing the problem in the workplace without formal guidelines is extremely difficult and a clear link between an alcohol policy and disciplinary procedures must exist which are fair, consistent and comply with the Labour Relations Act.

(The Industrial Court findings in the case of Giwusa and another vs VM Construction over dismissal for misconduct (drinking and driving) were that dismissal was unfair because there was no record of previous attempts to discipline; that prevention of alcohol abuse at work is a management responsibility and it is management who should ensure that employees are not drunk prior to commencing work.)

Hope for the future

Current developments such as the gazetting of the New National Road Traffic Act (No 93 of 1996) and the introduction of the Professional Drivers Permit (PRDP) during 1998 will ensure we keep a national focus on the question of substance abuse amongst all drivers.

The reduced blood alcohol limit (0.02 mg per 100 ml) for professional drivers will hopefully be strictly enforced by the traffic authorities and approval to prosecute on breathalyser (0.10 mg per 1 000 ml) results are a positive step in dealing with the problem more speedily and effectively.

The Department of Transport has accepted a proposal from the medical subgroups to introduce a mandatory cannabis test which must be negative before a PRDP will be issued. Ideally something similar should be introduced for alcohol screening.

The medical certificate for the PRDP is divided into sections and makes provision for an applicant's declaration which states he understands and accepts responsibility for reporting any changes in his health status to the authorities within a prescribed time period. This has always been a requirement of the Road Traffic Act, yet it is possible that an audit of the records will show it is never done! It also includes a declaration by the medical practitioner that the applicant is fit to drive without endangering public safety. A false declaration is a punishable offense, the maximum penalty being a fine of R20 000 or one year's imprisonment or both.

Under the chairmanship of Dr Murray Coombs, a working group has been set up to revise the SASOM guideline and investigate the training and registration of medical practitioners (similar to aviation) to conduct medical examinations.

Clearly the concept of alliances and partnerships among all stakeholders will have to be the order of the day. Ownership of the problem begins with the individual but ends in co-responsibility.

The road still to be travelled is rocky and steep and there is a long way to go. We didn't get it all right but at least we have made a start.

References

1. *Albertyn C & McCann M. Alcohol, Employment and Fair Labour Practice. Trauma Review; December 1997.*
2. *Fleetwatch – Driver Health Supplement; September 1996.*
3. *Engen Driver Health Policy.*

A cannabis-free workplace – a necessity or waste of effort?

Vivienne Pienaar
Manager: Therapeutic Services, SDM and associates - (contracted to Riverfield Lodge), Johannesburg

Occupational Health SA 1998; Vol 4, No 2: 14 -17

Cannabis Sativa or, as it is more popularly known, dagga, dope, zol, grass, is endemic in South Africa. It was previously more commonly used in certain sectors of our society but is presently probably the most widely used street drug in South Africa. Dagga has been front-page news for the past few months due to the intensive lobbying for the drug to be legalized. This article will attempt to dispel some of the myths and, more specifically, address the management of dagga abuse in the workplace.

The facts

Dagga is a central nervous system hallucinogen, which distorts the perceptions received by the individual via the five senses. Dagga is usually smoked in cigarettes or pipes, and is also at times combined with other drugs such as Mandrax.

The active ingredient, THC (Delta-9-tetrahydrocannabinol), is fat soluble, and is selectively taken up and stored in fatty tissue. It remains in the body for up to thirty days and longer, and therefore a regular dose of dagga will create an accumulation of THC.

Physical effects

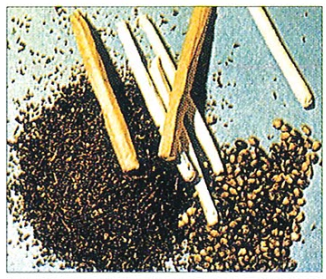
This potentially harmful chemical affects all the major organs of the body, as follows:

- Brain: Impaired perceptions, memory loss, motor retardation, etc.
- Reproductive system: Decreasing levels of sex hormones, decreasing sperm production, menstrual irregularities.
- Respiratory system: Marked increase in respiratory illnesses.
- Growth and body weight: Reports of emaciation or malnutrition amongst heavy dagga smokers.
- Immune system: Reduction and impairment of function of white blood cells, weakening the body's resistance to infection and disease.
- Cardiovascular System: Causes a 50% increase in heartbeat during intoxication. Could contribute to development of heart disease.

Behavioural and psychiatric changes

A number of psychiatric/personality and behavioural changes are also attributed to the use of dagga:

- Acute panic conditions with paranoia are often observed as a short-term effect of dagga use. This condition responds to treatment and usually disappears once appropriately medicated.
- Dagga-induced psychosis - which could last for days or, in some cases, months. This psychosis presents with symptoms of memory impairment, delusions, mental confusion, sensory perception distortions. Long-term hospitalization then becomes necessary to treat and manage the condition properly.
- Aggression: The combination of dagga and alcohol sparks uncontrolled anger and aggression in some people, often with tragic consequences.
- A-motivational Syndrome: In chronic cannabis abuse cases, the person often develops the so-called A-motivational Syndrome, which is characterized by a loss of ambition and drive, a failure and/or inability to sustain any form of meaningful activity and a generalized loss of interest. This condition is one of the identified signs and symptoms of addiction, but does appear to be particularly prevalent amongst chronic dagga users.



Legalization of dagga?

The current lobby for the legalization of dagga has created some confusion about the term *legalization* and the impact this would have in South Africa and abroad. South Africa is a signatory to the International Conventions on banned substances. These Conventions which list the banned substances call for the banning of these substances and govern all activities related to the banned substances.

Take It Easy The Next Time Nature Calls.

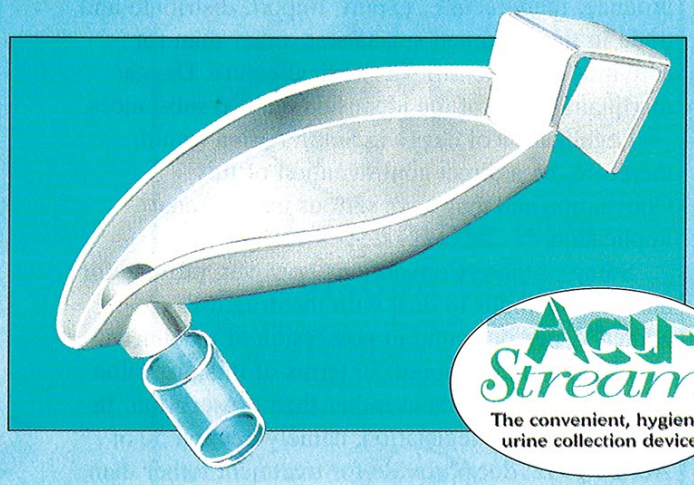
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The 1988 Convention reiterates the above, but in addition provides for severe punishment (specifically imprisonment) for those persons attempting to produce, manufacture, export, import, distribute and trade in these banned substances, other than for activities of a scientific or medical nature. Dagga/marijuana is one of the identified banned substances.

Legalization of dagga in South Africa would, therefore, be a direct contravention of this Convention and may have serious international implication.

Some of these Conventions however, provide for alternate methods to deal with the drug user or addict. A person found in possession of a banned substance (small amount) in terms of this provision would receive treatment rather than prosecution. In South Africa our legislation, namely Section 50 of Act 20 1992, does provide for treatment rather than prosecution, but it is obvious that some education and clarification of this principle has become necessary.

Dagga and the workplace

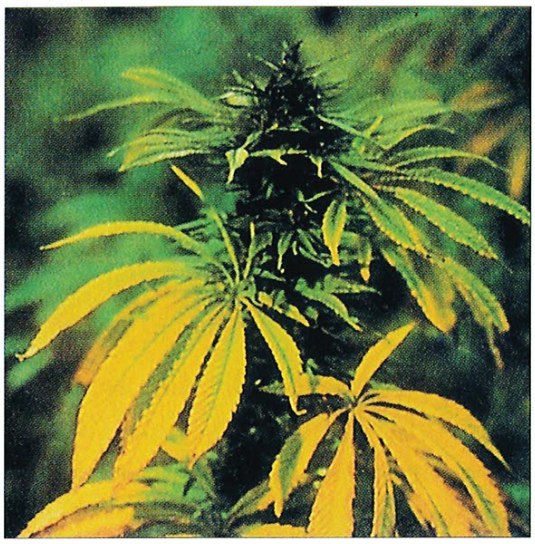
There is no doubt that intoxication presents both an economic and safety risk in any working environment. The Occupational Health and Safety Act (No 85 of 1993) stresses the company's responsibility to ensure that no person is allowed to operate any machinery whilst he/she is perceived to be under the influence. It is also very clear that a person's presence at the workplace, whilst under the influence, is also considered to be a threat to safety.

How does the occupational health practitioner deal with the various substance-related problems that arise? Here are a few suggestions?

• By being proactive and including a section dealing with substance abuse and/or dependency in the employment contract (which has to be counter-signed by an employee entering employment), one could probably alleviate the kind of difficulties caused by substance abuse in the working environment.

The company's policy on substance abuse and intoxication must clearly spelt out. The employee, by signing the contract, commits him/herself to adhere to the content of the agreement. Unfortunately these contracts, however clear and concise they may be, do not themselves ensure that no problems arise, but they definitely assist in the future management of potentially difficult situations.

• Clearly a person who is intoxicated or appears intoxicated must be dealt with. The company needs to have a policy on intoxication and the procedures



to be followed. The content of the Occupational Health and Safety Act (No 85 of 1993) on intoxication must be communicated clearly to all employees, on a regular basis.

• When concerns about a person's job functioning are raised and there is a concern about substance abuse and/or dependency, the occupational health practitioner should deal with this, as with any other health-related difficulty. The usual investigations, using the resources at his/her disposal, should automatically follow. Urine-testing should be part of the procedure and the results treated with the usual level of confidentiality.

When a employee tests positive for dagga or any other intoxicating substance, a system of referral should be in place.

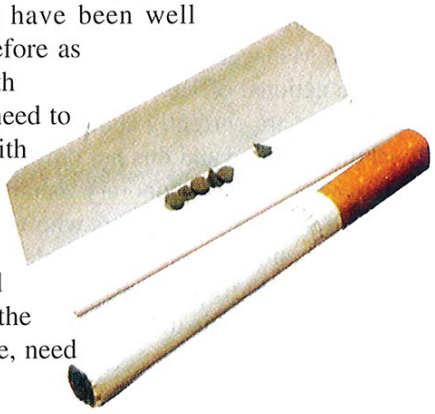
If the employee is dependent on dagga and/or other substances, treatment must be recommended. In terms of the new Labour Relations Act the company has no choice but to provide an opportunity for treatment.

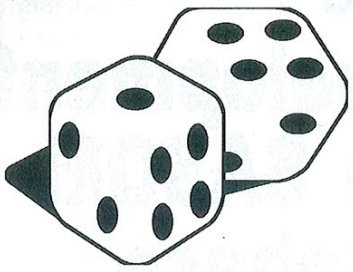
• The implications of substance abuse and/or dependency on certain high-risk positions need to be considered (drivers, machine operators, etc.) A person who has been identified as a potential safety and financial risk because of his/her abuse pattern must either be assisted through treatment to abstain or be redeployed in another, less risky position.

• Random urine-testing is often seen to be the solution to the whole problem, but in practice this has proven to be very costly and not always an acceptable labour practice. A company contemplating this route must ensure that no infringements of the employee's human rights occur.

Conclusion

The publicity which cannabis is presently being afforded, whether positive or negative, will continue to create confusion about its danger or addictive potential. However, as an occupational health practitioner, this issue should never degenerate into a moralistic debate, but rather remain a practical concern about the potential risks (both financially and in terms of safety) posed by the use, abuse or dependency to dagga, in the workplace. The physical, behavioural and psychiatric effects of dagga have been well researched - therefore as occupational health practitioners we need to deal effectively with the potential risk. Policies, procedures, education and real understanding of the problem, therefore, need to be in place.





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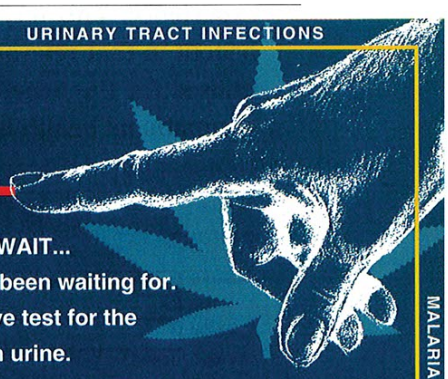
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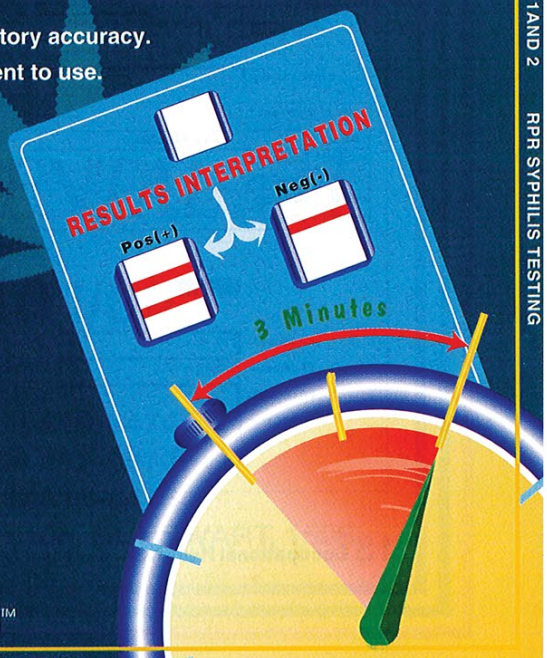
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The development of the SASOM database

Dehlia Müller
SASOM Secretary, Centurion

Occupational Health SA 1998; Vol 4, No 2: 18 - 19

Abstract

A database on the South African Society of Occupational Medicine (SASOM) members has been developed which includes members' areas of expertise and industry experience. This has proved to be of great benefit in that relevant information can be utilised for the benefit of members and occupational health in South Africa.

With the opening of the SASOM (South African Society of Occupational Medicine) national office at Centurion in February 1995, it could never have been anticipated that there would be such a vast request for information on the expertise of the Society's members. The SASOM Executive decided to implement a database for all their members and the request was made for them to indicate their various fields of experience and areas of expertise together with their formal qualifications in order that such information could provide a service to various institutions. With the help of Johnson and Johnson Health Management Institute, the database was set up at the national office, using *Access* software.

There are currently about 360 SASOM members on the database and this not only includes active members, but also honorary members and those retired non-active members who wish to maintain a link with and interest in the Society. The database is used not only for administrative purposes, but for other demographic details on individual members as well.

Table I shows what the screen printout on individual members looks like.

Table II shows extracts from the areas of expertise, industry experience and areas of practice. Some 64,0% of SASOM doctors have completed the questionnaire on the areas of expertise and industry experience. Efforts are, however, ongoing to improve the capture rate of members.

It should be noted that there are 40 categories of areas of expertise and 20 for industry experience. For the purposes of brevity not all have been included in table II.

The following types of information can be accessed from the database: members with a particular area of expertise, members with experience in various industry settings, members by chapter, membership type, members with certain degrees, etc.

This information is only released for bona fide and scientific purposes, and for members' use, but is not used for outside marketing companies.

As awareness increases, so industry has found the database a useful information tool. Many people and organisations seeking information on the expertise available and queries have been received for fields as diverse as agricultural pesticides and biological monitoring

Table I: SASOM Members

Member no: SAS00001 | Chapter: Inland
Title: DR | Membership type: Ordinary
Initials: A L | Area of practise: Full-time private occupational medicine practise
Surname: DEBBO | Date of birth: Monday, May 15, 1961

CONTACT DETAILS

WORK
Address1: c/o Healthy Ways Industry
Address2: P.O. Box 8026
Address3: PRETORIA
Code: 0001 | Work tel: 012-6785941
Work fax: 012-6775431
e-mail address:

HOME
Address1: P.O. Box 502701
Address2: WIERDAPARK
Address3:
Code: 0149 | Home tel: 012-6546691
Cell Number : 083-4538135

Areas of Expertise:

Memno:	Area of Expertise:
SAS00001	Back problems
SAS00001	Ethics
SAS00001	Computers
SAS00001	Executive health

Industry Experience:

Memno:	Industry Experience
SAS00001	Financial services
SAS00001	Engineering
SAS00001	Utilities

POSTAL
PAddress1: P.O. Box 502701
PAddress2: WIERDAPARK
PAddress3:
PCode: 0149

Qualifications:

Memno:	Qualifications:
SAS00001	DOH
SAS00001	Environmental Health
SAS00001	MBCHB
SAS00001	Health Administration

Table II: Extracts from database

Extract from areas of expertise	Number	% of Total Members
Chemical / Alcohol Abuse	10	3,0
Dermatology	5	1,6
Communicable Diseases	7	2,3
Epidemiology	14	4,6
Ergonomics	3	1,0
Ethics	5	1,6
Compensation	17	5,6
Pre-employment	28	9,3
Mental Health	2	0,6
Metals	4	1,3
Radiation	6	2,0
Safety	4	1,3
Agrichemicals for Pesticides	1	0,3
Industrial Relations	7	2,3
AIDS	11	3,6
Extract from Industry Experience		
Agricultural Production	11	3,6
Food	8	2,6
Financial Services	1	0,3
Mining	39	13,0
Motor Vehicle Manufacturing	8	2,7
Retail Trade	3	1,0
Petroleum	11	3,6
Utilities	2	0,6
Heavy Engineering	19	6,3
Area of Practice		
Full-time private occupational medicine practice	28	7,8
Full-time employment in occupational medicine - private sector	44	12,2
Full-time employment in occupational medicine - public sector	15	4,2
Full-time employment in occupational medicine - academic	7	1,9
Part-time occupational medicine practice	99	27,5
Medical specialist with interest in occupational medicine	16	4,5
Non-active members (retired)	11	3,1

through to the more mundane pre-employment and periodical examinations. What is important is that outside agencies are beginning to recognise that there is help available in a specific technical field which is little known outside the profession.

Funding has been secured from the World Health Organisation (WHO) for upgrading and expanding the database and an amount of R15 000 has been made available to date, for which the Society is most grateful. At present most of the occupational health nurses from SASOHN (South African Society of Occupational Health Nurses) have also been captured on the administrative system (SASOHN is still developing its areas of expertise, etc.) and WHO has indicated that it would wish to see the system expanded to incorporate all occupational hygienists. This and other exciting ventures are being discussed with WHO at present.

In conclusion, it was felt opportune for not only SASOM members, but also all readers of the journal to be made aware of the facility and that this short introductory article should be placed in the Journal. It is also hoped that it will *jog the memory* of those SASOM members who have not yet submitted their details!

The author wishes to thank Leon Wade of Johnson & Johnson Health Management Institute for assistance in setting up the database, and Dr Mike Baker for securing funds from the WHO/SA Technical Co-operation programme for this project.

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Occupational eye injuries: a practical field guide

Dr CJS van Niekerk
Barney Hurwitz Medical Centre, Johannesburg
Occupational Health SA 1998; Vol 4, No 2: 21 - 26

Abstract

Virtually everyone outside of ophthalmology is worried when approaching an injured eye. The occupational health-care worker has a high exposure to eye injuries which cause many an anxious moment. A practical guide is presented, by which all eye injuries can be approached to improve acute management and reduce concern about possible misdiagnosis.

The fact is, there is no need for expert knowledge or skills. Essentially, one should be able to diagnose the following:

Burns

Whether chemical or thermal, these need to be treated immediately and then referred.

Superficial injuries

These can be treated as opposed to deep or penetrating injuries, which must be referred.

The eye usually responds to injury by immediate severe pain. This is accompanied by severe watering, sensitivity to light and inability to close the lids (blepharospasm). Penetration through the conjunctiva and/or sclera may present with a little scratchiness only!

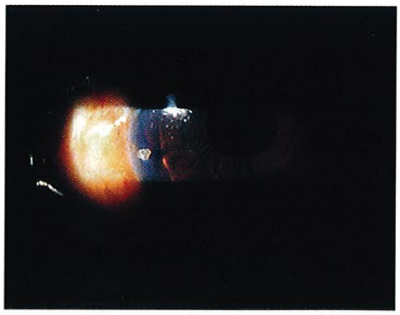


Figure 1: Corneal foreign body

There will be severe anxiety on the part of the patient. The first thoughts are usually of loss of vision, job, everything important, etc.

All of this makes it very difficult to assess the extent and management of the injury. Frequently, neither the patient nor co-workers can aid with a comprehensive history of injury.

A field guide to eye injuries

Essential
- Local anaesthetic eye drops
- Adequate history of injury: know your environment
- Penlight torch
- Water
- Cottonwool ear buds
- Your two index fingers
- Paper clip

Useful
- Magnifying lens
- Direct ophthalmoscope
- Pupil-dilating drops

Definitely not needed
- A quick look
- Complacency.

Essential items

Local anaesthetic eye drops

Your best initial treatment is to calm the patient down by relieving pain. No oral, intramuscular or intravenous analgesic works as well as a local anaesthetic eye drop.

Avoid the following:

- Analgesics known to induce nausea and vomiting, i.e. opiates. These result in increased pressure on the chest, brain and subsequently the eye and may induce enough pressure on a perforated globe to expel ocular contents. A good prognosis may be nullified.
- Analgesics known to reduce blood clotting, i.e. salicylic acid. An increased bleeding tendency will severely reduce the prognosis.

No patient should ever get anaesthetic drops to take home.

Why?

Local anaesthetic is epitheliotoxic: when a lot is applied, microscopic loss of epithelial cells is visible within 30 minutes. Regrowth of epithelium is severely retarded. Similar to a burn of the skin, the longer it takes to heal (re-epithelialize) the higher the risk of infection. Infection may result in the loss of the eye.

Available products

Many good products are available. The best suited to your environment is probably Minims with fluoresceine dye: tiny sterile containers (four to six drops), each used for one patient and discarded.

How to administer local anaesthetic

Gently draw the lower lid downwards until your finger rests on the cheek bone. No pressure is exerted on the globe and this should expose just enough of the globe between the lids. Put a drop in between the lids. Do this to both eyes. Now warn the patient that the drops will sting for a few seconds. (Do not warn them before the drop is applied otherwise you will never get the eyelids apart.) If the eye tears profusely, the anaesthetic drop will be diluted. Wait 30 seconds and add more anaesthetic drops. Repeat at least three times if the eye continues to tear profusely.

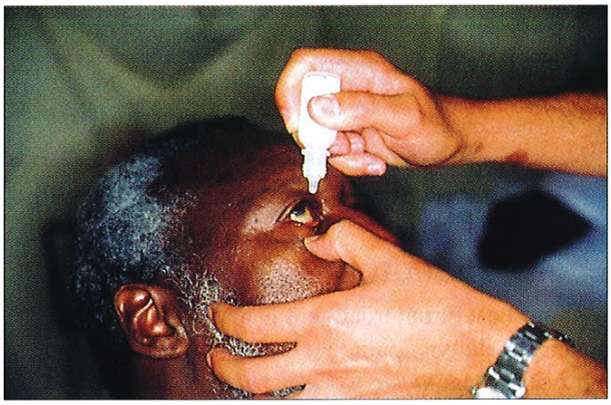


Figure 2: Administering local anaesthetic eye drops

Worthwhile to remember

- The anaesthetic effect is optimal at about 30 seconds: don't rush it.
- Warn the patient the effect will be lost within an hour.
- If more than one drop is required, do not hesitate to add more.
- Instill drops into both eyes. Virtually all ocular pain, reflex tearing and light sensitivity is eliminated. The patient is relaxed and easier to examine.
- If the patient is still unable to open the lids spontaneously after three drops and profuse tearing is still present, consider a particle protruding from the surface of the globe and pricking against the eyelid. The resultant blepharospasm will only be relieved once the offending particle is removed. Now you have to open both lids with your fingers because the patient is unable to do so.

How to expose the globe

With thumb and index finger gently withdraw the skin of the eyelid until the finger is in line with the bony orbital margin. Then press down onto the bone. Holding the eyelid down onto the bone will avoid pressure onto the globe. Thus no harm can be done in the presence of a lacerated or ruptured globe. If swelling of the lids is present, use a paperclip (described in detail later on).

So you do not have local anaesthetic eye drop in your bag? Do not despair. Most injectable local anaesthetics will work as well. Draw up a few drops in a 2 cc syringe and use this as a dropper. They will take longer to be effective and sting much, much more.



Figure 3: Eyelids withdrawn and pressed down on underlying bones

History of injury

Every injury is also a medico-legal case. Your history of injury, therefore, should be as complete as possible, not only for medico-legal reasons but also to give you the best anticipation of the type of injury.

The more you know about every possible activity or materials used in the occupation you serve, the better you will be able to anticipate the type of injury that has occurred. This will enable you to direct first aid treatment until you arrive at the scene or until the patient arrives at your office.

When striking a piece of metal or hard object with a hammer, a tiny piece of metal dislodged and striking the eye usually has enough energy to cause penetration. Every effort should then be made to exclude a penetration of the globe by a foreign body. This injury is frequently overlooked with devastating consequences for the eye.

The following history of injury is most misleading: "I was passing through the workshop and something entered my eye". A more detailed history will assist you to expect the type of injury:

• "The other workman was striking on metal with a hammer": expect a possible penetrating injury.
• "They were grinding or drilling": expect a foreign body on the surface of the eye.

Penlight torch

These are often supplied by pharmaceutical companies. Disposable penlight torches are very useful. They are even more useful when a cylinder with a blue filter fits on the top of the torch. The blue filter can be easily transferred to the tip of the torch to produce a blue light which will show surface fluorescence (any breaks in the ocular surface) brilliantly. This is used in conjunction with local anaesthetic with fluorescent dye. Particles on the surface will be outlined.

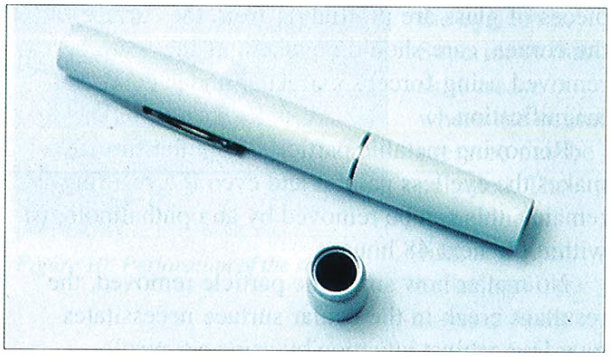


Figure 4: Penlight torch

How to use the torch

Shine the light directly from the front of the eye:
• Gross anatomy of the eye is seen.
• Pupil size, shape and response to light is noted.

Dilated pupil not responding to light: causes include the following:
• Direct blunt injury (traumatic mydriasis).
• Blind eye (injury to optic nerve): may have an indirect light response.
• Neurological cause.

Both direct and indirect pupillary response to light should be noted, preferably having the patient in a dark environment whilst the patient is looking into the distance.

Now direct the light from the torch at an angle of 45°, pointing at the cornea from both the left and right side of the globe and note the following:
• The dome of the cornea becomes clearly visible.
• The depth of the anterior chamber (AC) can be clearly seen and compared to the non-injured eye:

Flat AC = anterior penetration.

Deep AC = posterior penetration (loss of vitreous).

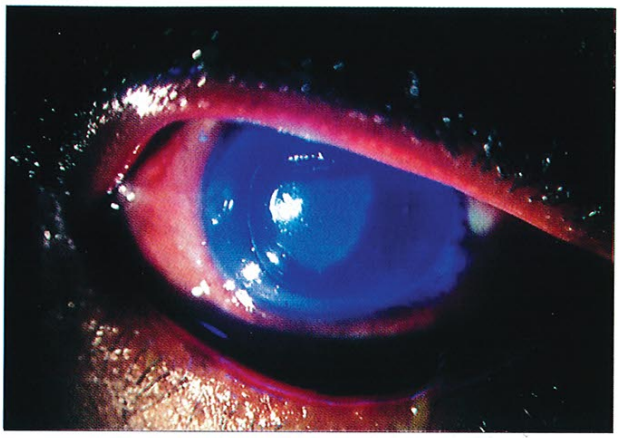


Figure 5: Corneal abrasion shown with fluoresceine staining

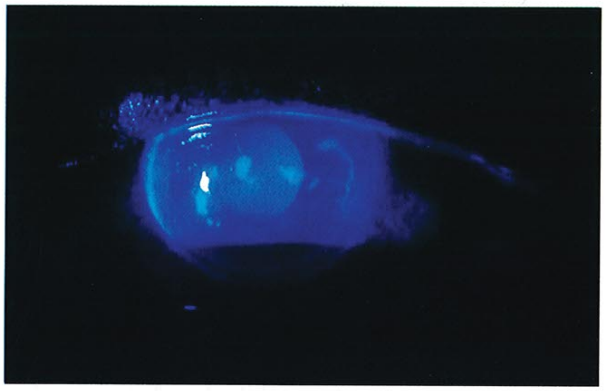


Figure 6: Herpes simplex dendritic ulcer stained with fluoresceine

It is easy to differentiate naevi on the iris surface from a foreign body (these naevi usually are present in both eyes).

Important

Direct the beam of the torch directly onto the front of the globe, noting gross anatomy and then at an angle of 45° from both left and right side of the globe, which enables the examiner to see more.

White lines visible on the cornea mean old scaring. A recent laceration of the cornea is clear.

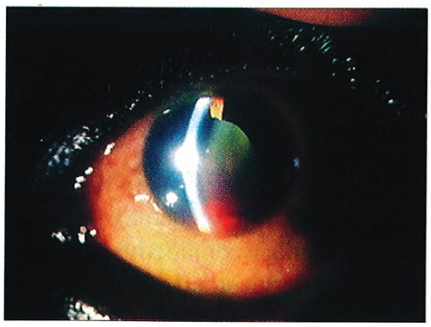


Figure 7: Blood in the anterior chamber

Water

Standard treatment for all chemical burns is to irrigate as soon as possible, for as long as possible, with water. Cold water is very pain-relieving, especially to superficial injuries of the cornea.

Whether water is used from a container or the tip of a hosepipe or is even saline administered through an IV line, it is essential to dilute and neutralise the chemical as soon as possible.



Figure 8a: Alkali burn: note corneal oedema

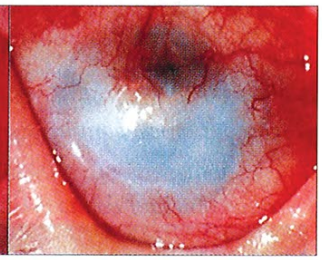


Figure 8b: End result of severe chemical burn: scarred cornea

Alkalis, in particular, will continue to penetrate and destroy tissue deeper and deeper into the eye until such a time as they are neutralised.

When a highly viscous chemical, i.e. cement, is forced under pressure through a burst pipe onto the surface of the eye, special care is needed. In these patients, cement is forced into the deepest parts of the conjunctival fornix under the eyelid. The cement hardens very quickly, at which time all particles have to be scraped away with a scalpel. These cases should be very aggressively irrigated and referred to an ophthalmologist as a dire emergency. Whilst being transported to the ophthalmologist, irrigation should continue using, if possible, saline administered through an IV line. If the cement is not removed as soon as possible, severe necrosis of the ocular surface will result in eyelids adhering to the globe and cornea becoming totally opacified. Total destruction of the epithelium of the globe has an extremely poor prognosis and usually results in a permanently blind eye.

Household cleaning agents can cause even more damage, with concentrated ammonia penetrating through the AC within 5 minutes after contact with the corneal surface.

Signs of severe chemical burn

- Cornea appears white (oedema).
- Ischaemia of bulbar conjunctiva (sclera appearing pale with large blood vessels not visible).

Prompt and adequate irrigation of the chemically burned eye will, therefore, seriously influence the outcome. Whilst irrigating the eye, the patient must be encouraged to look into all directions of gaze whilst the eyelids are withdrawn so as to irrigate the deepest parts of the conjunctival fornices.

It is important that we promote knowledge and practice of basic first aid skills amongst the workforce we serve. Equally important though, is that we continue to teach the value of protective eye-wear.

Cottonwool ear buds

These are most useful to remove superficial foreign bodies of whatever nature. Where multiple pieces of glass are protruding from the surface of the cornea, care should be taken, as these are best removed using forceps extracted under good magnification.

Removing metallic particles from the surface makes the eye less painful and even if a rust ring remains, this can be removed by an ophthalmologist within the next 48 hours.

No matter how small the particle removed, the resultant break in the ocular surface necessitates guarding against infection by using a topical antibiotic. Chloramphenicol is still a good first-line broad-spectrum antibiotic to use.

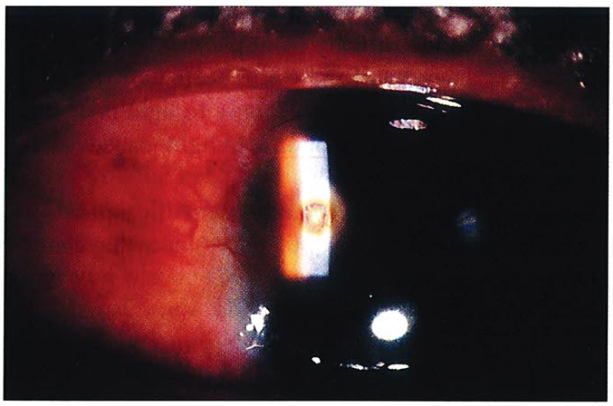


Figure 9: Rust ring of cornea

Two index fingers

Anterior penetration of the globe is usually easily visible with a penlight torch, i.e. laceration of the cornea, flat anterior chamber, abnormal shape of the pupil or blood in the anterior chamber.

Penetration of the sclera is easily overlooked. Fluoresceine staining, tiny bleeding points or apparent laceration of the conjunctiva should be

treated with caution. **The earliest and most convincing sign of penetration of the sclera (and the globe) is a soft eye**. This you can feel with your fingers.



Figure 10: Perforation of the sclera

The first centimetre of the upper lid has thick underlying tarsal plate. When the patient looks down, the superior edge of the tarsal plate is shown by the skin crease, clearly visible about 1cm from the eyelashes. Superior to this skin crease is where the ocular pressure can be palpated. The technique is similar to balloting a cyst: the two index fingers will alternatively press down gently and release. By palpating the normal eye first and then the injured eye, a soft globe will not be missed. It is essential to palpate the ocular pressure in every eye injury, especially when a penetration is suspected or the globe cannot be visualised due to severe swelling of the lids. Large objects will usually cause blunt injury or rupture. The patient generally will know whether something has entered the eye or not.

Paper clip

Often with severe blunt injury the eyelids are grossly swollen and impossible to withdraw to allow examination of the globe. Using a paper clip, a retractor can be made with which the upper lid can be retracted for examination of the globe.

The two limbs of the paper clip are separated by straightening. The longest limb then is bent so the paper clip resembles the shape of the letter L. Put local anaesthetic eye drops in the eye and direct the short limb of the L underneath the upper lid. The upper lid then is withdrawn upwards and away from the globe, which usually is sufficient to allow adequate examination of the globe with a penlight torch. This is most uncomfortable for the patient and he should be pre-warned.

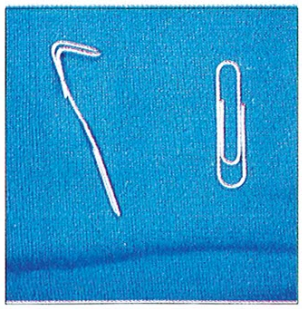


Figure 11: Bent paper clip

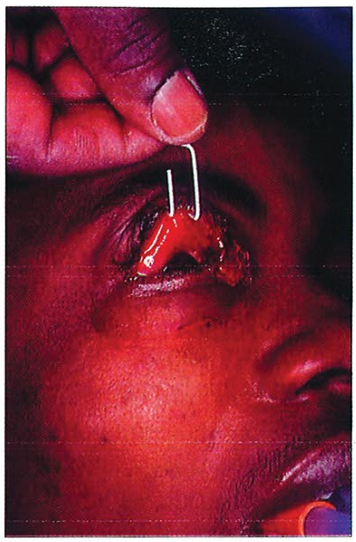


Figure 12: Retraction of the upper lid with a paper clip

Useful items

Magnifying lens

Options include a hand-held magnifier, a loupe or a slit lamp.

Magnification is most useful to detect subtle injuries of the ocular surface and for removal of foreign bodies, including a rust ring.

No matter how small the injury, the use of fluoresceine dye on the surface and examining with a blue light will ensure even macroscopic detection.

Direct ophthalmoscope

Only with increasing experience will this instrument become more useful.

Shadows observed in the reflex will show a laceration of the cornea, injury to the lens, blood or foreign body in the vitreous or oedema or direct injury to the retina or optic nerve.

Pupil-dilating drops

When the direct ophthalmoscope is used in conjunction with pupil-dilating drops (Mydriacyl, Cyclomydril), the retina can be visualised up to the equator.

Items definitely not needed

- A quick look
- Complacency

Tiny superficial injuries of the globe will be overlooked if the surface is not stained with fluoresceine and observed with a blue light.

Tiny breaks in the epithelium, if not reviewed on a daily basis, may present within 48 hours with a cornea totally invaded by infection and sloughing.

Tiny penetrations of the sclera with intraocular foreign body may be overlooked as the globe may appear normal immediately after injury with normal vision, only to present with a blind eye after six weeks. Palpating for a low ocular pressure at this stage, will ensure that such a trivial-looking injury is not missed.

So too may chemical burns appear as a fairly normal ocular surface unless the examiner searches for signs of a severe burn as pointed out in this field guide.



Figure 13: Pseudomonas ulceration 3 days after foreign body removed. Note impending perforation of the central cornea

Summary

The whole of the discipline of medicine continually preaches that with increased anticipation of the diagnosis from the patient's history, the better will be your diagnosis and subsequent management. Occupational healthcare workers need to know every aspect of the workers' environment they serve.

Start with a drop of anaesthetic into both eyes. Then obtain a complete history of the injury. If a chemical entered the eye, start irrigating immediately and continue irrigation until such a time as the patient arrives at an ophthalmologist. All other injuries require differentiation between penetration or superficial injury. Palpating the ocular pressure ensures differentiation.

Superficial particles can be removed with an ear bud, after which patients can be referred. Some penetrating injuries of the cornea can be adequately sealed by applying gentle pressure with an eye pad.

Most important, however, is to realise that most eye injuries can be prevented by continuous awareness campaigns and promoting the use of protective eye-wear.

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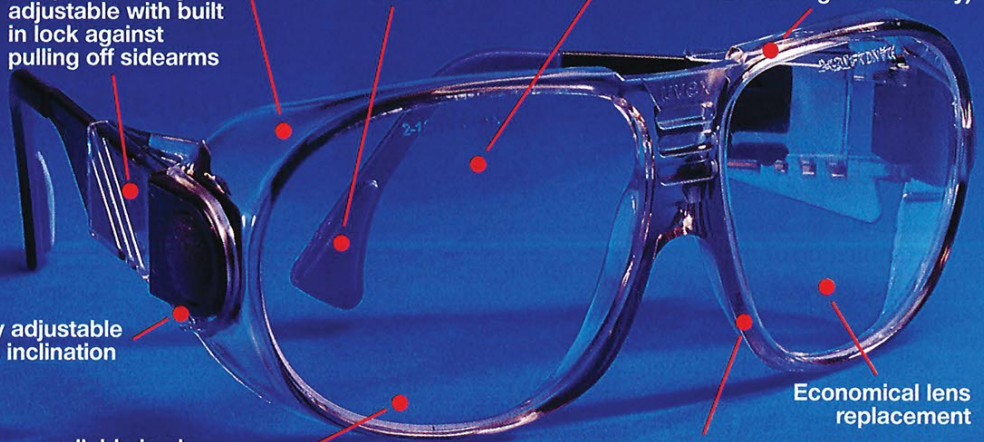
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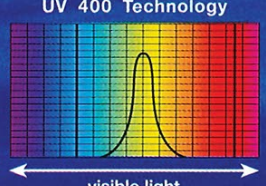
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Modern trends in eye protection

Mark Pilkington
National Marketing Manager
Uvex Safety South Africa (Pty) Ltd, Durban

Occupational Health SA 1998; Vol 4, No 2: 27 -30

Abstract

Although most companies in South Africa understand the need to provide safety eyewear for those workers whose jobs involve various risks to the eyes, many still find it difficult to get workers to wear them. The majority of eye injuries from all causes are preventable; thus compliance with wearing safety eyewear is essential.
There are many different reasons for lack of worker compliance. Often poor fit or discomfort are given as reasons or the eyewear is claimed to cause headaches. There are also sometimes hidden causes, such as old-fashioned styling and eyewear which is perceived by workers to make them look "funny"! In other cases companies have stayed with a product chosen many years ago that has since become outdated by recent advances in design. For example, 20 years ago, virtually all safety lenses were made from glass but today, in both Europe and America, polycarbonate lenses with their incredible strength and light weight dominate the market.

Of all the organs of the human body, the eyes are almost certainly the most sensitive and easily injured. Very often even a fairly minor initial injury caused by a small particle entering the eye, can, if left untreated, lead to further, more serious, damage caused by infection or scarring of the cornea, leading to loss of vision. In the case of an alkali splash into the eye, although the initial appearance of the eye may not be cause for concern, often severe scarring and opacification results, leading to blindness.

Radiation hazards

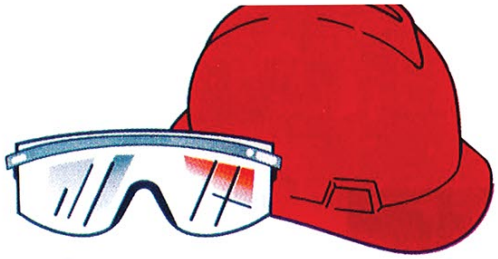
Fortunately, most South African companies are today fully aware of the need to provide their workers with eye protection to prevent the types of obvious injuries described above. However, there are a host of other equally dangerous hazards to the eyes in almost every work environment. These hazards can be in the form of both visible and invisible radiation from ultraviolet (UV) blue and infrared (IR) light, which are produced by a wide range of industrial processes such as smelting, gas or arc welding. All of these processes produce high levels of both UV and IR radiation. These radiations can cause retinal lens and corneal damage. It is also extremely important to understand that it is not only the workers who are directly involved in these processes, but also anyone who has to work in the same area, who must wear eye protection designed to absorb these harmful radiations.

Outdoors

The situation does not necessarily improve once one moves outdoors as about 45% of the sun's energy reaches the earth's surface and with the continuing depletion of the ozone layer, this figure will continue to increase. Sunlight contains invisible UVA and UVB radiation, plus visible blue and infrared radiation, to which years of accumulated exposure has been directly linked to the loss of vision due to cataracts and retinal problems. Yet many workers still work long hours outdoors without being provided any form of eye protection!

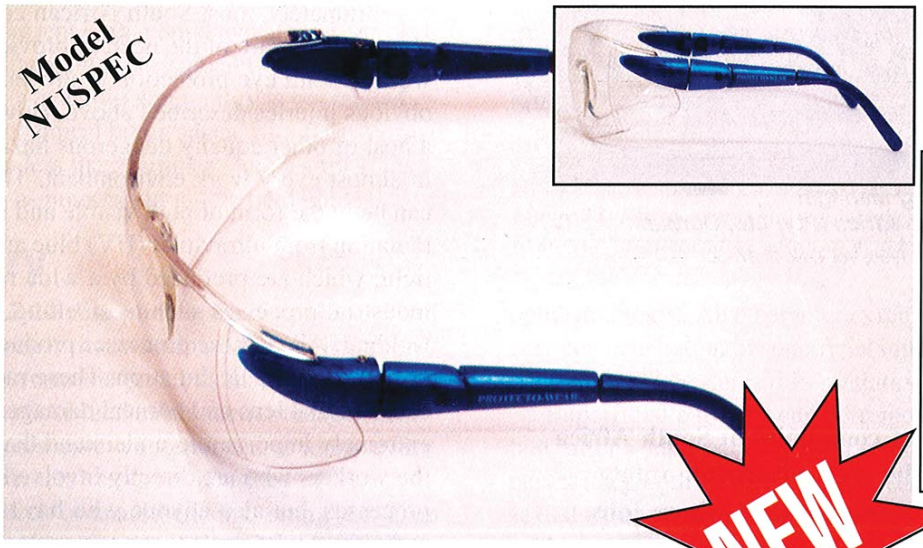
Welding lenses

Unfortunately, protection from these and other types of radiations has become so specialised that it cannot be solved by one dark "absorb-all" lens. There are also many myths about the correct darkness and best colour of lenses for different applications, for example, "the darker the lens, the higher the protection level". This, in fact, can be the complete opposite because if the lens does not have built-in UV filters, the darkness of the lens will only cause the pupils to dilate more and thus allow an abnormal amount of the damaging UV rays to be transmitted to the retina. Another common myth is that green lenses are fine for welding as long as they are very dark. Totally untrue although, yes, generally



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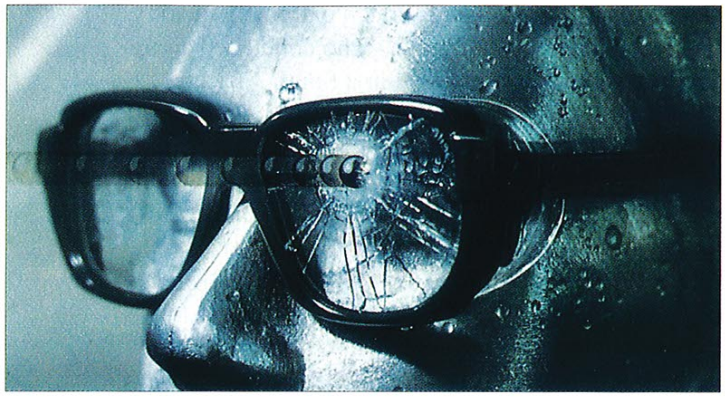
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welding lenses are green. Although part of the protection is due to the shade of the lens, it is vitally important that the lens has the correct UV and IR filters built in and will also transmit sufficient light through the lens to enable the person to see and perform the task at hand. Yet another common mistake made is the fitting of welding lenses into clear frames with clear side shields thus allowing the UV and IR radiation to enter via the frame and sides. The frames for welding spectacles or goggles should always be black, plus the side shields must either be black or also have the same UV and IR filters as the lenses, because a large proportion of the light can enter via the clear frame or from the side of the frame (Figure 1). It is also important to note that welding lenses do not have good colour recognition and are unsuitable for jobs where this is an important function, i.e. drivers, electricians. Another myth that has recently developed is that blue lenses provide a higher level of protection from blue light. Again untrue. This is merely a fashion trend, as are mirrored lenses. A good quality lens should, in fact, absorb radiation rather than reflect it.



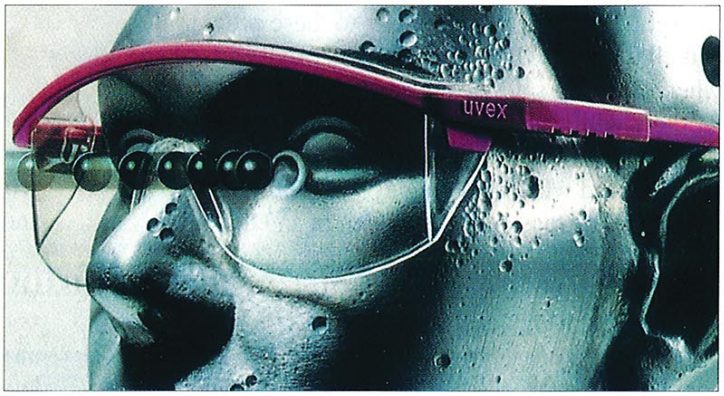


Figure 2: Impact performance of (a) glass versus (b) plastic lenses

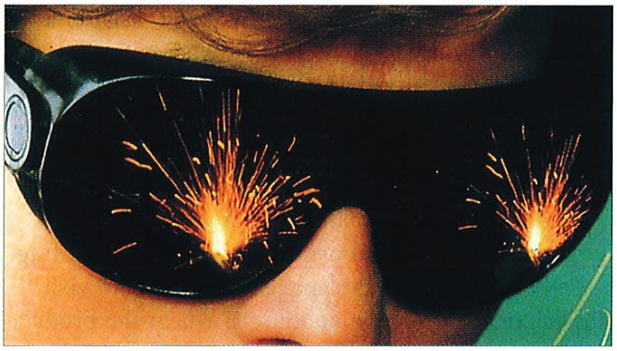


Figure 1: Correct welding lenses

Glass versus plastic lenses

Although the emphasis is usually placed on lenses which will provide the correct level of protection from the previously mentioned harmful radiations, there are several other important aspects to consider. One of these is the choice between glass or plastic lenses. Generally, the main reasons for choosing glass lenses are that they do not scratch easily and also normally have good optical qualities, but the downside of glass lenses is that they are far heavier and even when chemically or heat treated, still normally only meet the general purpose impact requirements. However, very often in practice, the impact energies exceed the capacity of glass lenses (Figure 2). They are also very prone to pitting which occurs whilst welding or grinding and it is extremely difficult to coat them with a permanent anti-fog coating. Polycarbonate lenses, on the other hand, are incredibly strong and lightweight. Successful durable anti-scratch and anti-fog coatings have been developed that have the anti-scratch coating on the outside of the lens where the majority of damage occurs with an anti-fog coating on the inside. These coatings have almost eliminated the problems normally associated with polycarbonate lenses in the past.

Comfort and worker compliance

It is a sad fact that, while many companies in South Africa pay lip service to safety, in reality many base their purchase decisions on price. This very often leads to a situation where the eye protectors provided meet the required impact or radiation standards but totally ignore other vitally important factors such as fit, comfort and optical correctness,

plus they also mist up and scratch extremely quickly. In a recent article by Bulbulia,[1] who conducted an in-depth study of eye protection in a South African chemical plant, it was found that only 52.4% of the workers in the plant wore their eye protection when required. This was despite a high level of training and awareness for the need to do so. The majority of these workers gave the same reasons for not wearing their spectacles. They did not fit and were uncomfortable, scratched easily and also misted up. I have found that in my many visits to factories throughout South Africa that these are almost always the same common complaints.

Yet today there are solutions to these problems and all it requires is a little extra time and care taken when selecting safety eyewear to ensure that workers will wear the eyewear provided (Figure 3).

The following important points must always be kept in mind when selecting eyewear products:

• Are they reasonably lightweight and do they offer a full range of adjustments to allow a comfortable fit to different facial contours (i.e. sidearm length and lens/nose-bridge inclination)?

• Are they coated with a durable anti-scratch coating (ask for a demonstration or documentary proof) and are they also available with a long-term anti-fog coating?

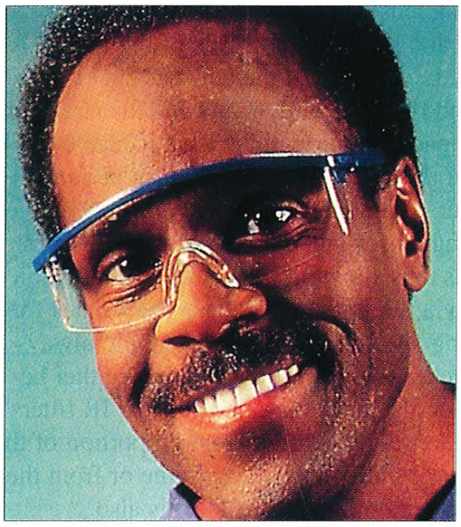


Figure 3: Comfort means compliance

• Even clear lenses should provide a high level of UV protection (check the amount).

• If protection is required from other radiation hazards, get documentary proof of the protection level provided (remember the importance of the frames and side shields for welding).

• Can you easily replace the lenses once they have become scratched or damaged (this can provide a large cost saving)?

• Have they passed any other international safety standard and if so, again ask for documentary proof of this? (Try and find out country of manufacture, not where it was designed.)

• Ascertain if the manufacturer provides a guarantee and what it covers. Ask for this in writing.

• Finally, always encourage the supplier to visit the factory and see the conditions where the product will be used.

In conclusion, it is important to keep in mind that when considering price, if Product A costs R10 but only lasts a week and Product B costs R25 but lasts 4 weeks, a simple bit of arithmetic will show that, in the long term, Product B will be the most cost effective and will often provide other hidden benefits to your company. These include a higher level of productivity with workers now able to see clearly and better perform their tasks, fewer eye injuries and trips and falls which can be contributed to by poor vision from scratched or pitted lenses.

Reference

1. *Bulbulia A. Visual status and eye protection in chemical industrial workers. Occupational Health SA 1996;2(6):32-37.*

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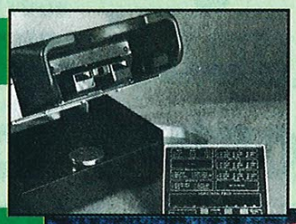
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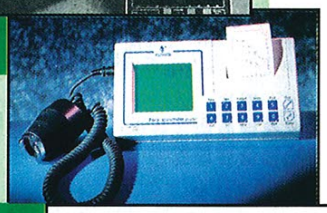
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M A

Management of occupational exposure to HIV and HBV: dealing with needlestick injuries

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Occupational Health SA 1998; Vol 4, No 2: 32 - 35

Abstract

Health-care workers are exposed to the human immune deficiency virus (HIV) and the hepatitis B virus (HBV) in the workplace. Universal precautions need to be followed in order to minimise needlestick injuries. Prevention programmes need to be in place and, in the unfortunate case of a needlestick injury occurring, it is essential to follow practical guidelines.

The risk of HIV and HBV transmission

The risk of HIV Transmission

Background

• Although preventing blood and body fluid exposures by utilizing universal precautions is the primary means of preventing occupationally acquired human immunodeficiency virus (HIV) infection, appropriate post-exposure management is an important element of workplace safety.[1]

• Zidovudine (ZDV)/AZT post-exposure prophylaxis (PEP) was associated with a decrease of approximately 79% in the risk for HIV seroconversion after percutaneous exposure to HIV-infected blood in a case-control study among health-care workers.[2]

• The average risk for HIV infection from all types of reported percutaneous exposures to HIV-infected blood is 0.3%. In the case-control study, risk was increased for exposures involving a deep injury to the health-care worker, visible blood on the device causing the injury, a device previously placed in the source-patient's vein or artery (e.g. a needle used for phlebotomy), or a source-patient who died as a result of acquired immunodeficiency syndrome (AIDS) within 60 days post exposure (and therefore was presumed to have a high titre of HIV). The risk for HIV infection exceeds 0.3% for percutaneous exposures involving a larger blood volume and/or higher HIV titre in blood. The risks of mucous membrane and skin exposures to HIV-infected blood are, on average, approximately 0.1% and less than 0.1%, respectively.[3]

• Although information about the potency and toxicity of antiretroviral drugs is available from studies of HIV-infected patients, it is uncertain to what extent this information can be applied to uninfected persons receiving PEP.

Recommendations for HIV post-exposure prophylaxis (PEP)

• The following recommendations are provisional because they are based on limited data about efficacy and toxicity of PEP and risk for HIV infection after different types of exposure. Because most occupational exposures to HIV do not result in infection transmission, potential toxicity must be carefully considered when prescribing PEP.

• Chemoprophylaxis should be recommended to exposed workers after occupational exposures associated with the highest risk for HIV transmission. For exposures with a lower, but non-negligible risk, PEP should be offered, balancing the lower risk against the use of drugs having uncertain efficacy or toxicity. For exposures with negligible risk, PEP is not justified. Exposed workers should be informed that (a) knowledge about the efficacy and toxicity of PEP is limited; (b) for agents other than ZDV; data are limited regarding toxicity in persons without HIV infection or who are pregnant, and (c) any or all drugs for PEP may be declined by the exposed worker.

• If the source-patient's or the patient's HIV status is unknown, initiating PEP should be decided on a case-by-case basis, based on the exposure risk and likelihood of HIV infection in known or possible source-patients.

Table I : Summary recommendations - HIV post-exposure prophylaxis

Volume of blood Exposure incident	Titre of virus Characteristics of source patient		
	Asymptomatic (low titre)	**AIDS** (mod. titre)	**Pre-terminal AIDS** (high titre)
A. Percutaneous injuries			
• Superficial injury	Offer	Recommend	Strongly encourage
• Visible blood on needle/needle used in vein or artery	Recommend	Strongly encourage	Strongly encourage
• Deep intramuscular injury or actual injection	Recommend	Strongly encourage	Strongly encourage
B. Mucosal Contacts			
• Small volume and brief contact	Offer	Offer	Offer
• Large volume or prolonged contact	Offer	Recommend	Recommend
• Large volume and prolonged contact	Recommend	Recommend	Recommend
C. Skin Contacts			
• Small volume and brief contact	Offer if obvious breach in skin		
• Large volume or prolonged contact	Offer or recommend if obvious breach in skin		
• Large volume and prolonged contact	Offer or recommend if obvious breach in skin		

* Based on recommendations of the San Francisco General Hospital. (Geberding JL. Ann Intern Med 1996;125:497-501.)

The risk of HBV transmission

Background

There is a much higher risk of hepatitis B virus (HBV) transmission from this sort of injury. The hepatitis B virus can remain viable in dried blood for over a week and the quantity required for effective transmission is smaller (about 0.01 ml). There are effective vaccines for hepatitis B. Therefore all health-care workers (HCWs) likely to come into contact with body fluids should be protected by vaccination.[4] Nevertheless, vaccination should not take the place of universal precautions.

Guidelines to deal with "needlestick" injuries in health-care settings

Injury on duty reporting

All needlestick-type injuries must be reported to supervision/management. Notification and investigation of all cases should follow normal injury on duty procedures.

Patient

• The name and number of the patient with whom exposure contact was made must be available.

• Obtain informed consent from the patient to draw blood for HIV/HBV.

Draw blood from the patient for HIV status (if unknown) and for HBV status (if unknown). NB! Use a separate tube of blood for each test.

If the patient refuses consent for his/her blood to be drawn or tested for HIV/HBV, he or she cannot be forced to do so.

• The patient must be informed of the outcome of all tests and counselling will be arranged if HIV-positive. If the patient is dead when specimens are drawn or dies before results are returned, then his/her spouse or significant partner should be informed of the outcome of the tests.

Exposed health-care worker (HCW)

• Counselling of the exposed HCW is essential highlighting the risk of transmission, recommendations for antiviral PEP and hepatitis B immunisation. Prophylaxis as well as toxicity of antiviral PEP should be explained.

• Obtain informed consent from the HCW to have blood drawn for HIV and HBV testing, i.e. make sure that the staff member knows what the implications are if the first test comes back positive for AIDS or HBV.

If the HCW's first HIV test is positive, then arrange for AIDS counselling

HIV postexposure prophylaxis (PEP)

The exposed HCW cannot be forced to take HIV PEP if he or she does not wish to do so.

Once the decision for post-exposure zidovudine prophylaxis has been made the following factors must be borne in mind:

Promptness

Treatment must be commenced as soon as possible, preferably within an hour after exposure, but certainly within 72 hours.

Initiating therapy after a longer interval (e.g., 1-2 weeks) may be considered for the highest risk exposures; even if infection is not prevented, early treatment of acute HIV infection may be beneficial.[5] PEP should probably be administered for 4 weeks, if tolerated.

The individual receiving HIV PEP should observe precautions to prevent possible secondary transmission.

Antiviral administration

• For routine post-exposure prophylaxis a combination of ZDV and lamivudine (3TC) is recommended for 4 weeks' treatment.

• Where the source patient has been on prolonged ZDV treatment and resistance is a distinct possibility, or in the rare cases of massive exposure such as contaminated blood transfusion or injection of a substantial volume of blood, a protease inhibitor such as indinavir (Crixivan®) should also be added to the prophylaxis regimen.

ZDV - 200 mg 5 x daily for 48 hours as loading dose, followed by

- 200 mg 8-hourly for 1st week
- 100 mg 8-hourly for weeks 2 to 4

3TC - 150 mg daily for 4 weeks

If indicated: indinavir - 800mg 3 x daily for 4 weeks.

Side-effects

Objective side-effects are uncommon in healthy HCWs receiving antiretroviral prophylaxis, although symptoms related to anxiety are very prevalent.

• ZDV-associated side-effects are mainly fatigue, headache and gastro-intestinal symptoms such as nausea and vomiting. The more serious toxic reactions seen in HIV and AIDS patients on ZDV treatment, such as bone marrow depression, liver toxicity and myopathy, have not been seen in healthy HCWs on short-term prophylaxis treatment but still need to be monitored (see below). The reduced dosage of ZDV (previously 200 mg 5 x daily for 4 weeks was the recommended dosage) has resulted in far fewer side-effects and dropouts from treatment.

• 3TC side-effects are also mainly gastro-intestinal and, rarely, pancreatitis.

• Indinavir may cause gastro-intestinal side-effects and in 2 to 3% of patients on clinical trials it has been associated with renal stones (which can be prevented by increasing fluid intake to over 1.5 litres per day).

Monitoring of possible drug side-effects

If PEP is used, drug-toxicity monitoring should include a complete blood count and renal and hepatic chemical function tests at baseline and at 2 and 4 weeks after starting PEP. If subjective or objective toxicity is noted, dose reduction or drug substitution should be considered with expert consultation, and further diagnostic studies may be indicated.

Serological monitoring for HIV antibodies

Four stages - baseline (as soon as possible after exposure), at 6 weeks, 3 months and 6 months. A negative result at 6 months is adequate evidence that HIV transmission has not taken place.[1]

Hepatitis B immunization

Unimmunized individuals will require immediate protection. Specific hepatitis B immunoglobulin given within 48 hours will provide passive immunity, but this protection is short-term only. An accelerated course of hepatitis B vaccine should be started simultaneously to develop active immunity.[4]

Individuals successfully immunized (anti-HB_s titre > 10IU/l) previously will need an immediate booster dose of vaccine, unless they are known to have adequate protective levels of antibody (100IU/l). Previously immunized individuals whose vaccinations have been unsuccessful should have specific hepatitis B immunoglobulin for immediate passive immunity (Table II).[4]

Table II : Significance of anti-HBs level after vaccination

	Anti-HBs titre	Significance of immunity to HBV
Non-responders	<10 IU/l	Probably lack protection
Low-responders	10 -100 IU/l	Generally lack protection within a few years
Good-responders	>100 IU/l	Probably long-term immunity

Hepatitis B prevention programme

Responsibility for the programme

Hepatitis B is one of the most important occupational infectious diseases but it is preventable through improved work practices and vaccination. Vaccination programmes should be introduced. A member of the occupational health team will be responsible for the practical implementation and evaluation of the programme.

Content of the programme

The programme should address all aspects of prevention including the following:

- Knowledge and awareness of universal precautions.
- Determination of eligibility for vaccination programmes by risk assessment.
- Availability of vaccine, free of charge to "at-risk" workers.
- Guidelines for the management of exposure accidents.

Participants must be given full information on the occupational risk of hepatitis B, the consequences of hepatitis B infection, the safety and efficacy of the vaccine and the need to complete the full course of vaccination.

Hepatitis B vaccination

Purchase of vaccines

All licensed hepatitis B vaccines are safe and effective. There is no practical difference between plasma derived and recombinant HB vaccines. No differences have been noted in safety, efficacy and immunogenicity of HB vaccines available in South Africa. The decision should be based primarily on price.

Pre-vaccination screening

Pre-vaccination testing to see whether a worker is already immune to hepatitis B is not usually cost-effective for at-risk workers, but could be recommended for certain cases.

- Establish follow-up procedures; these will include screening and protective titres, policy on booster inoculations as well as infected workers and persistent non-responders to vaccine.

Follow-up after an initial course of vaccine

Screening and protective titres

Screening those who have already had a course of vaccine is useful. Blood tests involving serological screening ensure "protective" levels of antibody against hepatitis B infection. A minimal protective titre of 10 IU/l, normally measured one to three months after the end of the course, is considered to ensure protection. In the United Kingdom, 100 IU/l is regarded as the desired antibody titre for complete seroprotection after immunization.[6]

Boosters

Following first course of Hepatitis B (HB) vaccine

- If titre level is equal to or greater than 100 IU/ℓ, a booster dose of Hepatitis B vaccine should be given at 5-yearly intervals, to reinforce immunity.[4]
- If titre is between level 10-99 IU/ℓ give a booster dose of HB vaccine.

If titre level remains between 10-99 IU/ℓ following the booster dose, a second course using HB vaccine should be given.

If immunity remains at a low level, i.e. 10-99 IU/ℓ following the second HB course, an annual booster dose of HB vaccine should be given.

- If nonimmune, a second course using HB vaccine should be given. If client still remains non immune or low level immunity, an annual booster dose of HB vaccine should be given.

Infected workers and persistent non-responders to vaccine

- Workers identified as chronic carriers, or non-responders to vaccine should be counselled intensively on safe working practices.
- Employees identified as carriers should be advised about the availability and effectiveness of interferon treatment.

Post-exposure prophylaxis

- Is integral to any programme to control hepatitis B infection.
- Is effective, but should not replace pre-exposure hepatitis B vaccination.
- Provides an opportunity to vaccinate workers.
- Should be carried out as soon as possible.
- Is necessary following exposure incidents.

References

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Hepatitis C as an occupational hazard

Hepatitis C infection is not a new disease. It is a disease that has remained silent for many years and now presents itself as a new epidemic. When assessing the occupational risk of hepatitis C infection, it is important to establish the prevalence of infection in the general population and in high-risk groups; to understand disease transmission and disease profile; and to formulate appropriate prevention strategies in line with national health and safety regulations based on this information.

In an occupational setting, transmission of HCV infection requires entry of contaminated blood or body fluids from an infected person into the bloodstream of an employee. Patients who have received blood transfusions and blood products, dialysis patients and intravenous drug users (IVDU) have significantly higher prevalence rates than the general population.

In Europe and North America, markers of HCV infection are more common than HBV markers in patients presenting with liver disease. It is these silent cases of unknown aetiology who will present the greatest occupational hazard to health-care workers.

The majority of occupational HCV infections can be attributed to needle-stick injuries, although studies in Europe and the United States indicate that the prevalence of HCV in health-care workers is not greater than in the general population. Transmission from health-care worker to patient appears to be extremely rare.

Like the risk of HBV infection, occupational risk of HCV infection cannot be determined solely by job title, but rather by what the worker actually does. Using this method, it becomes clear that many other professionals outside the health-care profession could be at risk of HCV infection. These include workers in hospital housekeeping, laundry services, sterile supplies services and maintenance; public service employees such as paramedics, police officers, fire fighters, teachers working in institutions, workers in long-stay residential institutions and waste disposal workers; and embalmers, prison staff and research scientists.

Hepatitis

Occupational risk definition

HEALTH-CARE PROFESSIONAL

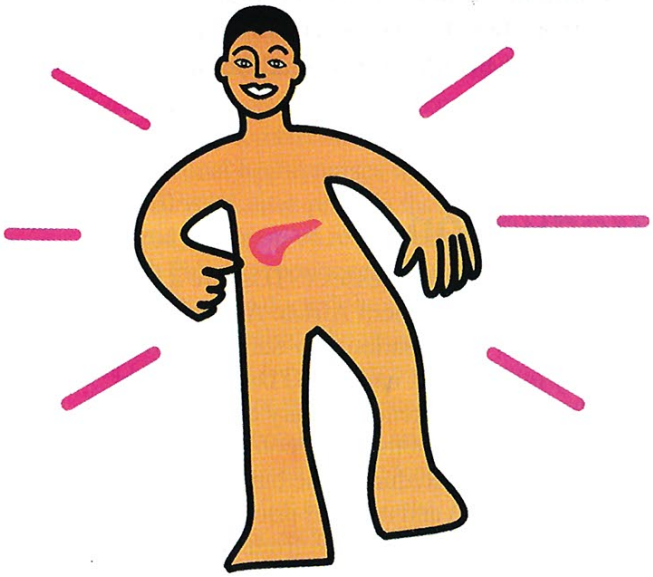
An employee whose work activities involve regular physical contact with patients and/or their blood or body substances for the purpose of providing care and investigational and/or therapeutic intervention.

Programmes to prevent occupational HCV infection must be based on screening and treatment of blood products, standard precautions, use of disposable equipment and sterilisation of reusable medical equipment. It is also necessary to assess continually whether the control measures put in place are appropriate.

Prevention programmes must indicate a clear policy for managing exposure accidents. These include attending to the wound immediately; reporting the accident; obtaining blood samples from the patient and worker; establishing the patient's disease status; establishing the worker's baseline; offering counselling; and monitoring the worker for 12 months.

For further information on Hepatitis C, contact the Schering Plough Help Line on 0800 014 85 or the Hepatitis Product Manager on (011) 922-3310.

Take this Quiz to see if you're at risk for Viral Hepatitis B or C



First, Get the facts...

Fact: An important part of health care is detecting diseases before symptoms occur.

Fact: Some diseases, including viral hepatitis B and C (which attack the liver), may not show any symptoms until the disease has progressed. Hepatitis B and C are viral infections that, if left untreated, can be life threatening.

Fact: Almost everyone is at some risk of getting viral hepatitis. But certain people and certain behaviours are associated with an increased risk. Are you, or is someone you know, at risk?

Take the Risk Quiz

Instructions: Answer each question by circling the appropriate letter or letters. There may be more than one correct answer for each question.

1 Which locations put people at risk for viral hepatitis B or C?

A. Glass houses near children who throw stones
B. Third-world countries
C. Africa
D. South Pole

2 What occupations are associated with a risk for viral hepatitis B or C?

A. Bankers
B. Butchers
C. Health care workers with exposure to blood/blood products
D. Sales

3 What activities are associated with a risk for viral hepatitis B or C?

A. Sexual contact with multiple partners
B. Present or past use of intravenous drugs
C. Eating too much sugar or junk food
D. Strenuous exercise

4 Which medical treatments or actions carry a risk for viral hepatitis B or C?

A. Transplantation
B. Transfusion with blood or blood products prior to screening
C. Haemodialysis
D. Psychological examination

5 Which people are at risk for hepatitis B or C?

A. People with computer terminals
B. People with needle-stick injuries
C. People with haemophilia
D. People with tattoos or needle piercings

Answers: 1 (B,C,); 2 (C); 3 (A,B,); 4 (A,B,C); 5 (B,C,D,)

Get Tested

If you suspect you are at risk, see your doctor to get tested; in many instances, hepatitis can be treated. Call the HEPATITIS HELPLINE for more information: 0800-014-825.

For further information on Hepatitis B or C
Contact the Schering Plough Helpline on 0800-014-825
or the Hepatitis Product Manager on (011) 922-3310

STD management in the workplace: a national evaluation

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Occupational Health SA 1998; Vol 4, No 2: 38 - 41

Abstract

As part of a recent national review of the response to HIV and STDs in South Africa conducted by the National Department of Health, an evaluation of STD management in the workplace was conducted. The aim of the evaluation was to assess accessibility and quality of STD care in workplace health services. The methods combined a national telephone survey of 244 occupational health nurses working in workplace clinics with key informant interviews and a focus group discussion. Of the 244 nurses interviewed, 57% reported providing STD care in the workplace clinics. About one third (39%) had heard of the syndromic approach to STD management and only 18% reported ever having used it. Of those clinics providing STD care, only 34% reported effective treatment regimens for urethral discharge in men and 16% for vaginal discharge in women. If workplaces are to play a meaningful role in decreasing the burden of STDs, both access to and quality of STD care in the workplace need to be substantially improved. There are a number of barriers to this improvement. These include the failure of government to issue permits for prescribing by occupational health nurses, and the perceived lack of confidentiality of and mistrust in, workplace clinics. In light of these findings a number of recommendations on further steps by the government and occupational health professional bodies are made.

Introduction

Sexually transmitted diseases (STDs) are a major cause of ill health in southern Africa. According to the World Health Organisation, sub-Saharan Africa has a yearly incidence of curable STDs in adults of 28%.[1] Apart from their genito-urinary complications, STDs are now well established as cofactors in the transmission of HIV.[2] Reducing the burden of STDs is thus a major global and national priority. To achieve this, innovative strategies from both the public and private sectors are required. In recent years, there has been a growing recognition of the role which workplace health services could play in addressing the STD epidemic. As part of a National HIV/AIDS and STD Review, the Centre for Health Policy was commissioned by the Department of Health to evaluate management of STDs in the South African private health sector, including workplaces. This article reports on the findings of the evaluation of workplace STD management.

Evaluation methods

The aim of the evaluation was to obtain a representative, national perspective on STD management in the workplace.

The objectives of the evaluation were to

- assess the accessibility to STD care in the workplace;
- assess the quality of STD management in workplace health services;
- assess the presence of health promotion programmes in the workplace;
- engage private sector stakeholders in the development of recommendations for improving access to, and quality of, STD care in the private sector.

The evaluation involved a national telephone survey of 244 occupational health nurses (OHN) in workplace health clinics, key informant interviews with ten key thinkers in the field of STD management and/or occupational health services, and a focus group discussion with nine men and seven

women who are members of South African Congress of Trade Unions. The 244 OHNs were randomly selected from the list of 704 OHNs who are members (paid and not paid up) of the South African Society of Occupational Health Nurses (SASOHN). Alternative sampling frames, such as the list of clinics registered with the Medicines Control Council, were considered as too inaccurate to be of value.[3] A structured interview schedule for the occupational health nurses was developed and piloted with 10 work sites prior to the commencement of the study. A team of researchers from the Centre for Health Policy, experienced in interviewing techniques, conducted the telephone interviews. Ethical approval for the project was obtained from the Committee for Research on Human Subjects of the University of the Witwatersrand. Participation in the project was voluntary, and informed consent was obtained from each respondent prior to interview.

Findings of the occupational health nurse survey are given below, followed by key stakeholder views on issues regarding access to and quality of care provided by workplace clinics for STDs.

Results

The 244 occupational health nurses interviewed represented workplaces in six of the nine provinces in South Africa, with no workplaces sampled from the Free State, Northern or Northern Cape Provinces. The distribution by province is indicated in Table I.

Table I: Distribution of sample by province

Province	N	%
Gauteng	129	52.8
KwaZulu/Natal	41	16.8
Eastern Cape	38	15.6
North West	19	7.8
Western Cape	16	6.6
Mpumalanga	1	0.4
Total	**244**	**100**

Most of the workplaces sampled had a full-time nursing service (median 40 hours per week) with part-time medical practitioner support (median 2 hours per week).

Of the 244 workplace clinics surveyed, only 139 (57%) reported providing STD treatment. STD care is provided by nurses in 23% of these workplaces, by doctors in 14% of workplaces, and by a combination of doctors and nurses in 62% of

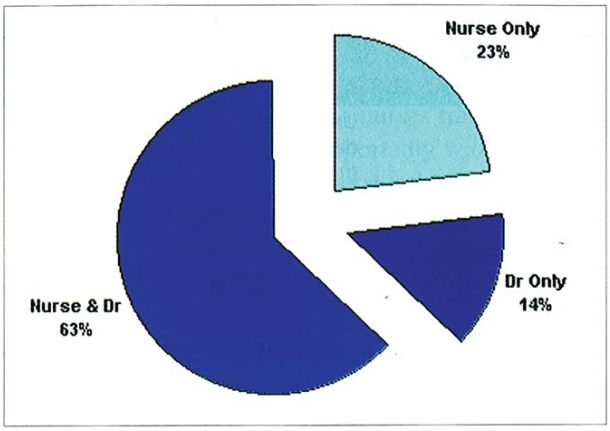


Figure 1: Who treats STDs in the workplace (n = 139)

workplaces (Figure 1). Of the workplaces that treated STDs, only 27% stated they also offered treatment to partners of patients with STDs. Those workplaces which did not treat STDs, indicated that they would refer STDs elsewhere, in 83% of cases to the local public sector clinic.

A number of parameters were used to assess quality of STD care. They include staff knowledge, presence of protocols, partner management, training of staff in counselling and quality of drug treatment.

Thirty-nine per cent (39%) of the total sample (244) had heard of the syndromic approach to STD management, and only 18% reported ever having used it. Of the clinics that provide STD treatment, 85% had guidelines for managing STDs. The majority of guidelines (72%) were drawn up by the government, 27% by the company staff (usually the doctor), and 1% by a drug company.

Respondents were asked to report on treatment practices for three STD syndromes: urethral discharge, genital ulcers and vaginal discharge. Of the 139 who reported treating STDs at their clinics, 115 (83%), 80 (58%) and 75 (54%) were able to describe the management of urethral discharge, genital ulcers and vaginal discharge respectively.

Treatment practices were analysed at the following two levels:

- The proportion in which reported treatment for a particular syndrome followed the current Department of Health (DOH) guidelines (according to the Essential Drug List), and therefore represented the most cost-effective management of the syndrome.
- The proportion who reported effective treatment of the particular syndrome, although not necessarily following the DOH guidelines. **[Effectiveness was assessed through using a second, more detailed set of STD management guidelines produced by the Department of Health in 1993.[3]]**

Table II: Treatment practices for three STD syndromes in occupational health clinics

	Urethral discharge (men): n=115	Genital ulcer disease in men: n=80	Vaginal discharge: n=75
Treatment according to DOH guidelines (%)	19	13	13
Effective treatment prescribed (%)	34	13	16

The findings are presented in Table II and Figure 2.

Less than 20% of respondents followed the current DOH guidelines for treatment of STDs at their workplaces. The proportion increased for urethral and vaginal discharge when all effective (as opposed to only recommended) treatment was considered. The differences observed were largely due to the use of tetracycline **[Tetracycline is taken four times a day, whereas doxycycline is taken only twice daily, making it more convenient for users.]** in regimens rather than the recommended doxycycline.

The proportion of respondents reporting 0, 1 , 2 or 3 (in the case of vaginal discharge) effective drugs for each syndrome is reflected in Figure 2. The OHNs were asked if condoms were distributed in their workplaces. Almost all nurses (98%) surveyed responded in the positive. Nurses were also asked *how* these condoms were distributed. Only 6 (3%) workplaces reported selling condoms, the remainder provided them for free. Nearly half those workplaces which provided condoms at no cost, stated employees had to ask for them (49%) (Table III).

Fifty eight percent (58%) of the nurses interviewed reported there was a person trained in counselling at their workplace. The majority of these people received their counselling training through a course run by a government AIDS Training Information and Counselling Centre (Table IV).

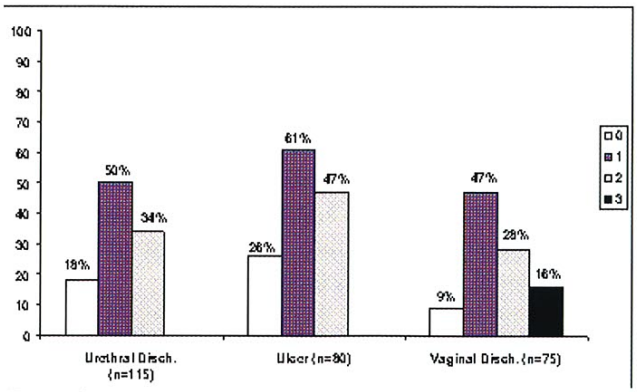


Figure 2:

Table III: Condom distribution in the workplace (n=240)

Distribution mechanism	N	%*
Freely available (from a box or dispensing machine)	136	57
Available on request (mainly through clinic)	118	49
Hand out to patients with STD	7	3

*(Respondents could give more than one response)

Table IV: Place where counselling training was obtained in those workplaces reporting a trained counsellor (n=142)

Training Course	N	%
ATICC	69	49
Govt clinic/hospital	21	15
Nursing college/university	18	12
Trained psychologist or social worker	7	5
In-house	11	8
Private course	16	11
Total	142	100

In the key informant and focus group discussion, stakeholders were asked to suggest ways in which access to, utilisation and quality of STD care in the workplace could be improved.

A key concern emerging from interviews with workplace managers and health workers was difficulties surrounding the "permit system". The permit system allows a nurse in a workplace clinic, under the supervision of the doctor, to prescribe drugs. Permits are issued by the Department of Health and are central to the success of a workplace clinic and to primary STD care, which is generally nurse-provided in South Africa. Many of the respondents reported that the permits are no longer being issued.

All stakeholders, including workers, raised the problem of the perceived lack of confidentiality of, and mistrust in, workplace health services. The following quote from a senior manager highlights this mistrust:

"The last place on this earth I would go to for treatment of an STD is a workplace clinic - I know what they tell me about other people who go there. Even though they don't mention names specifically, you know who they are talking about. Particularly if it's a senior guy who has an STD and you ask 'where do you think he got that from'. Total confidentiality is a tall order - particularly in a workplace site."

Workers also felt that clinic staff are not approachable and were often judgmental. The fact that the majority of nurses are female was also seen as a barrier to STD care by male workers. This sentiment was reiterated by healthcare workers.

"The last place on this earth I would go to for treatment of an STD is a workplace clinic"

Education at all levels was frequently reported as a way to improve utilisation. Health workers feel the need to provide more education and workers would like more information. However, comments from health workers indicated a strongly moralising and negative approach to education, which is likely to reinforce, rather than diminish barriers to utilisation.

"You need to teach people morals, [that is] start with the bible. Your body is the temple of God. Education should be approached from a religious point. Give [people] statistics of people who have died to frighten them."(OHN)

A few stakeholders also raised the issue of STD treatment costs.

"At ...where I am helping to set up a workplace clinic, we won't be treating workers for STDs because the treatment is too expensive." (OHN)

Discussion and recommendations

Although most workplace health services surveyed employed full-time nurses, only 57% actually provided treatment for STDs. Moreover, the overall quality of STD care, where it is provided, is poor. This situation represents a major, yet underutilised opportunity for addressing STDs in South Africa.

On a positive note, findings reflected a considerable degree of co-operation between the public and private sector as highlighted by the number of occupational health nurses trained by ATTICs. Condoms are also reportedly widely available and STDs were understood as a major public health priority by all workplace stakeholders. Moreover, all stakeholders expressed a keenness to work collectively to solving the problem.

Unfortunately, however, the apparent moratorium on issuing of permits on the one hand, and problems in the perception of workplace health services on the other, appear to be the two key obstacles to the appropriate management of STDs in the workplace.

The recommendations arising from the evaluation are as follows:

• The major professional groupings, SASOHN (South African Society for Occupational Health Nurses) and SASOM (South African Society for Occupational Medicine) agree to

- common guidelines for workplace STD care;
- disseminate these guidelines as widely as possible;
- develop a strategy for training of occupational health nurses in STD management;
- develop a strategy for increasing the proportion of workplace health services providing STD care;
- initiate a common monitoring and evaluation strategy;
- discuss ways in which to improve confidentiality of and trust in workplace health services for STD management.

• Government undertakes concrete steps to re-initiate the issuing of permits, and to revise the list of drugs on these permits, so that occupational nurses are able to fulfill their role in STD care.

References

1. World Health Organisation. *Global estimates of curable sexually transmitted diseases.* Global Programme on AIDS, WHO 1995.
2. Grosskurth H, Mosha F *et al.* Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania. *The Lancet* 1995;346:530-36.
3. *Kocks D. Personal communication.*
4. Department of Health. *The Diagnosis and Management of Sexually Transmitted Diseases in Southern Africa.* Department of Health, Pretoria, 1993.

Maria Mofokeng

Maria Mofokeng was born in Lydenburg in Mpumalanga in 1925. She was educated there and went to Botshabelo High School in Middleburg, where she also did her teachers' training.

In 1950, Maria started nursing training at Germiston Hospital, transferring to Baragwanath where she completed her training and subsequently worked for 18 years, mostly in the Cerebral Palsy Clinic. She also did a course on teaching Cerebral Palsy children at Forest Town School.

In March 1973, Maria took the bold step of moving out of hospital surroundings to join the employ of a UK-based knitwear manufacturer in Johannesburg. This convinced her of the importance of workers' health and relevant issues, and she obtained an IPM HR diploma, as there was no occupational health course then.

Maria, with others, started the black occupational health nurses group and was founding chairperson. This filled a much-needed gap at the time of segregation. She has always been one to share her knowledge with others and



with this guiding philosophy, the group grew from strength to strength.

With her quiet diplomacy, Maria was instrumental in averting the expulsion of SASOHN at the XXI ICOH meeting. This turned what could have been an ugly incident into a learning process that emphasised the need for tolerance and change.

Maria retired in January 1991 from full-time occupational health to Dube, Soweto, but continues to do locums and is an active member of the Catholic Nurses' Guild. She is also a community worker who helps children develop life and coping skills. She is an Honorary Life Member of SASOHN and is still active ("...only in summer, I hibernate in winter...") in the Gauteng Central Group.

Guidelines for authors

Contributions

Contributions are always welcome. Opinions, short reports, letters and articles should be sent to: The Production Editor, Occupational Health Southern Africa, PO Box 2433, Randburg, 2125.

Authors are requested to inform the Editor about submissions to other journals and are required to transfer copyright of their articles to the Journal when accepted for publication.

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Articles may be submitted in the following categories:

Original and Review Articles: Should follow the format of : introduction, methodology, results, discussion and references. Less than 2 500 words.

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Preparation of Manuscripts

Manuscripts should be typed double spaced, using only one side of the paper. Number pages consecutively and leave wide margins. A separate title page should contain the title, the author's full names, and details relevant to correspondence. References should also be listed on a separate page. If possible, a word count should be included and diskettes are welcomed and will be returned.

Authors should submit one original article and two copies of each manuscript. Scientific measurements should be expressed in S.I. units. Abbreviations and acronyms should only be used if absolutely necessary and must be defined on first use.

Illustrations, tables and graphs should be submitted on separate sheets as black and white prints. They should be clearly identified, tables should carry Roman numerals, I, II, III etc. and illustrations Arabic numerals 1, 2, 3 etc. X-ray films should not be forwarded, but glossy prints submitted.

References should be set out in the Vancouver style and only approved abbreviations of journal titles should be used.

Journal references, e.g.

1. Zwarenstein M, Barron P, Tollman S, *et al.* Primary Health Care Depends on the District Health System. S Afr Med J 1993; 83:558.

Book references, e.g.

1. Thompson L.A history of South Africa. Newhaven and London: Yale University Press, 1990.

They should be inserted in the text as superscript numbers and listed at the end of the article in numerical order (not alphabetically). The accuracy of references is the author's responsibility. 'Personal communication' and 'unpublished observations' may be cited in the text, but not in the reference list.

Alterations to proofs must be limited to misprints or factual errors. Major alterations or new material cannot be accepted. Proofs not returned within two weeks will be regarded as approved.

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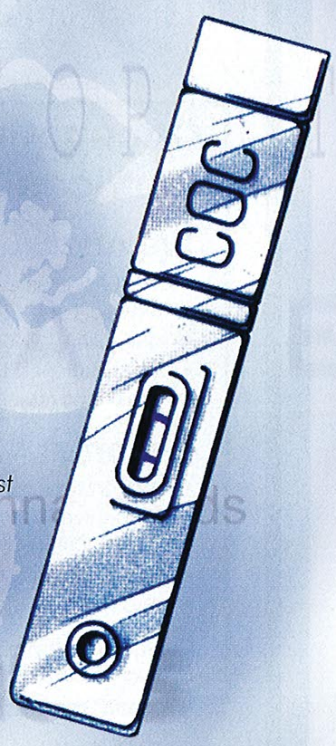
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Web sites worth visiting

To the editor:

1. http://www.occenvmed.net is a new, privately moderated US-based site which deals mainly with Medical Centre Occupational Health issues, with very useful links onto other sites.

2. http://www.wcomp.gov.za is a new SA site dealing with COIDAct-related issues and provides for downloading Compensation Commissioner forms, and a wealth of other information.

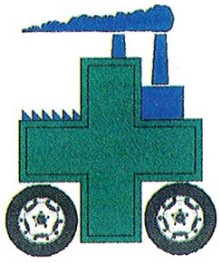
3. http://www.nosa.co.za is a new SA site for NOSA.

Most important: SASOM National Office e-mail address is sasomdm@iafrica.com.

Will SASOM Members please inform Dehlia Müller of their e-mail addresses with their subscription renewals.

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Calendar of Congresses and Conferences

Date	Congress	Venue	Contact
1998			
24 - 1 May	American Occupational Health Conference	Boston, MA, USA	Kitty Pijanowski, MSEd, Assistant Director of Education, ACOEM, 55 West Seegers Road, Arlington Heights, IL 60005, USA
May			
13 - 15	International convention in health, safety and environmental control	World Trade Centre, Kempton Park, Johannesburg	NOSA, PO Box 26434, Arcadia, 0007 Tel: (012) 21-7736 Fax: (012) 323-2436
14 - 16	International Conference on Women's Health: Occupation, Cancer and Reproduction. New Perspectives in Occupational Epidemiology	Reykjavik, Iceland	Travel and Congress Bureau, Feroaskrifstofa Iceland Tourist Bureau, ITB-Congrex, Skógarhlio 18, 101 Reykjavik, Iceland. Tel: 354 365 3300 Fax: 354 562 5895 email: congrex@itb.is
22 - 23	MMOA First Congress and 76th Annual General Meeting	Sun City, South Africa	Dr EW Louw, President MMOA, Selbypark Medical Centre, PO Box 62171, Marshalltown, 2107 Tel:(011) 493-4300 (W), (011) 888-5683 (H) Fax: (011) 493-2320
June			
23 - 25	Occupational Health in the third millennium	Moscow, Russia	The Secretariat, RAMS Institute of Occupational Health, 31, Prospect Budennogo, 105275, Moscow, Russia Tel: +7 095 365 02 09 Fax: + 7 095 366 05 83 e-mail: Izemerov@orc.ru.
28 - 3 July	12th World AIDS Conference	Geneva, Switzerland	Anette Lifors, Conference Manager, Congrex (Sweden) AB, PO Box 5619 11486 Stockholm, Sweden Tel: +46 8 612 6900 Fax: 46 8 612 6292 e-mail: anette@congrex.se
August			
24 - 26	First International ICOH Conference on Psychosocial Factors at Work	Copenhagen, Denmark	Ole Teller, The Danish Working Environment Fund, Vermundsgade 38, DK-2100 Copenhagen, Denmark Tel: +45 39 16 05 00 Fax: +45 39 16 05 80 e-mail: AMFUDD@inet.uni-c.DK
September			
8 - 11	Medichem 1998: New Horizons - Old concerns	Cape Town, South Africa	Medichem 1998, Occupational & Environmental Health in the Chemical Industry, PO Box 781811, 2146, Sandton, South Africa. Tel: 27 11 780 3600 Fax: 27 11 884 6932 email: Medichem@Sandton.Senchem.co.za
9 - 11	Global Ergonomics Conference	Cape Town, South Africa	Deborah McTeer, Postgraduate Conference Division, University of Cape Town Medical School, Observatory 7925, South Africa Tel: +27 21 406 6348 Fax: +27 21 448-6263 email: deborah@medicine.uct.ac.za
1 - 25	PRESMUS-ISEOH '98 3rd International Scientific Conference on Prevention of Work-related Musculoskeletal Disorders 13th International Symposium on Epidemiology in Occupational Health	Helsinki, Finland	Ms Mirja Kallio, Finnish Institute of Occupational Health, Topeliuksekatu 41 a A, FIN-00250 Helsinki, Finland Tel: 358 9 47 471 Fax: 358 9 4747 548 e-mail:mkal@occuphealth.fi
23 - 25	The 4th International Symposium on Biological Monitoring in Occupational Health	Seoul, Korea	Se-Hoon Lee, MD, Secretary General, Biological Monitoring, c/o Dept. of Preventive Medicine College of Medicine, Catholic University of Korea 505 Banpodong, Sochoku, Seoul 137-701, Korea Tel: +82 2 590 1236 Fax: +82 2 532 3820
October			
6 - 8	The 2nd Emergency Services Exhibition	Kyalami, Johannesburg	Debbie Tunnicliff Tel: (011) 466-2299 Fax: (011) 466-1318
13 - 15	Safety, Health and Environment '98 Exhibition	Gallagher Estate, Midrand	Joan De Beurges, PO Box 652495, Benmore, 2010. Tel: (011) 444-3937 or 444-7954 or Fax: (011) 444-7987 Email: raisa@iafrica.com

To advertise conferences, please contact Jenny Anderson, tel: (011) 791-2615 fax: (011) 791-2618

SA to host top occupational health conference - Medichem '98

South Africa is to host the prestigious international Medichem conference for the first time in Cape Town in September 1998. It is a joint venture between the SA Society of Occupational Medicine and the Chemical and Allied Industries Association, and focuses on occupational and environmental health in the chemical industry.

Medichem, founded in 1972, is an international professional association of more than 500 occupational health specialists, including physicians, nurses, toxicologists, epidemiologists, industrial hygienists and safety engineers from 47 countries.

The chairman of the organising committee, Dr Murray Coombs, says the timing of the conference in South Africa is most appropriate:

"Business interest in Africa and Eastern Europe, as countries in transition, is at its peak. By holding the 1998 meeting in Africa back to back with the 1997 conference in Bulgaria, we will have the opportunity of focusing on the needs of both developed and developing worlds and on how these interrelate."

Primary health care and medical aid issues tend to be lower priorities for the first world counties, because of their social security and welfare benefits, he says.

"South Africa, where these benefits are inadequate, needs to use the chemical industry's *Responsible Care* initiative as well as occupational health and preventive health strategies to uplift primary health care and medical aid."

South African delegates to the 1997 conference found that Eastern Europe has far more research resources available for occupational and health issues.

"Bulgaria, for example, has several occupational health institutes with 60 to 100 researchers per institute," says Dr Coombs. "The chemical industry in SA, however, has far less chemical exposure for employees when compared to Eastern Europe. However, there are still 270 000 accidents reported annually in South Africa." The delegates found, too, that Europe, through collaborative initiatives within the European Union, has possibly surpassed the USA on knowledge, codes of practice and guidelines in the occupational and environment health field.

"Most multinationals who invest in South Africa will use European standards as a benchmark when introducing occupational and environmental health programmes."

Medichem serves as a scientific advisory committee to the International Commission of Occupational Health. Each year the association holds a congress from which selected proceedings are published by the World Health Organisation and by the International Archives of Occupational and Environmental health.

The SA conference will be of interest to anyone in the fields of occupational and/or environmental health, occupational health physicians, occupational hygienists, epidemiologists, toxicologists, environmental and safety specialists and occupational health nurses, says Dr Coombs.

For further information on Medichem 1998, visit our web site on http://www.globalconf.co.za/medichem98, or contact the Conference Secretariat on telephone: (021) 762-8600, fax (021) 762-8606 or e-mail medichem98@globalconf.co.za.

Referees

We are most grateful to the following people who kindly reviewed papers for *Occupational Health Southern Africa.* Without their expertise and generosity we would be unable to maintain the high standards for which we strive.

Dr M Baker
Dr D Barnes
Dr T Berelowitz
Sr C Bunn
Prof P de Villiers
Dr R Ehrlich
Dr R Ferrie
Dr T Geddes
Sr B Hoggins
Dr A Kotze
Sr P Mead
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Dr D Rees
Dr J Ric Hansen
Prof M Ross
Mr J Schoeman
Dr D Stanton
Dr J Stark
Dr H van der Merwe
Dr C van Selm
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Opening up to safety

Celebrating 25 years of contribution to safety in the workplace, NOSA has engaged TML Reed Exhibitions to organise this year's Noshtex from 13-15 May at the World Trade Centre, Kempton Park, Gauteng.

Running alongside Noshcon, the annual safety conference that has become the hallmark forum for discussion of safety issues, Noshtex embraces *safety, health* and the *environment* (SHE) in the fullest sense. With exhibitors from major specialist companies in the SHE arena, Noshtex is open to interested visitors whether or not they are conference delegates. For the first time, anyone concerned with safety issues will be able to visit exhibitors and examine the latest safety and environmental health equipment, first hand.

From the oldest safety traditions comes a brand new approach to spreading safety concepts. According to John Bone, NOSA's MD, the association with TML Reed is an exciting one. "This year's Noshtex and Noshcon will be the most dynamic to date. TML Read's professionalism and experience are helping us to expand notions of SHE to a far wider audience. Safety is no longer a 'nice-to-have' – it is an essential ingredient to international competition, and will save money in the long run if properly implemented." Jo Melville, MD of TML Reed Exhibitions, adds "Our first association with NOSA offers the opportunity to create contacts which add value, and is a fitting celebration of NOSA's 25th anniversary".

For further information, please telephone (011) 886-3734.



Jo Melville, MD of TML Reed Exhibitions, and John Bone, MD of NOSA, celebrate the award of the Noshtex safety exhibition contract.

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Winner of the MoM competition



Mr Hennie de Jager handing over the prize to Sister Ria Scheepers.

The winner of the 1997 Mobile Occupational Medicine (MoM) competition was Sister Ria Scheepers of the SA Mint. Her prize was a week's holiday at an RCI resort, which was donated by Dr Murray Coombs.

Mr Hennie de Jager, an accountant at Execusure, presided over the draw.



Dr Murray Coombs (MoM), who donated the prize.

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Medico-legal aspects of glove powder contamination

Presentations by two medico-legal experts, Dr Ferdinand van Oosten, Professor in Criminal Law and Medical Law at the University of Pretoria, and Ms Lorraine Hebblethwaite, lawyer and lecturer in Medical Jurisprudence and Forensic Medicine at the School of Law, University of Natal, Pietermaritzburg, highlighted the possible legal consequences of problems arising in either patients or health professionals as a result of contact with glove powder used inside surgical gloves. The lawyers were addressing health professionals in Johannesburg and Durban at meetings sponsored by Regent Medical. The following interesting legal concepts came under discussion:

Product liability

Ms Hebblethwaite said that a manufacturer is liable for loss or harm caused by defective products, i.e. "those with an abnormal quality or defect which impairs or destroys its utility and effectiveness for the purpose for which it was made. It would be difficult to prove defect or abnormality in a powdered glove if the harm it caused is latex allergy rather than lack of proper barrier protection - the purpose for which it was made", said Ms Hebblethwaite. "One would have to prove the defect of insufficient removal of latex protein during manufacture or alternatively, win the argument that no warning of the potential danger of latex allergy appears on the packaging."

Liability for omissions

Patients are entitled to 'reasonable care' in terms of the formal or informal contract they enter into with the health-care provider. Failure to identify patients at risk of latex allergy or to supply a latex-free environment for patients known to be at particular risk (e.g. babies with spina bifida, who undergo repeated surgery) could be construed as an omission.

Health-care workers (HCWs) are in a contractual relationship with their employer, e.g. the hospital authority. The rights of employees are protected by the



Occupational Health and Safety Act No 85 of 1993, under which "the employer must provide, as far as is reasonably practical, a working environment that is safe and without risk to the health of his employees". Various measures to ensure that this legal requirement is met are detailed in the Act, and many of these are pertinent to the prevention of latex allergy, e.g. the employer must identify hazards and provide necessary precautionary measures, and must ensure that employees are conversant with such hazards. Clearly, from these criteria alone, any HCW suffering from latex allergy caused by powdered gloves has a case for action against an employer. Employees' rights are also protected under sections of the Constitution Act 108/1996.

Medical negligence

Glove powder left inside a patient's body could be construed in the same light as a forceps or swab left inside a patient. It is also a foreign body, which could give rise to further operative procedures for adhesions, to infection or to a wrong diagnosis of HIV infection or cancer. This could constitute medical negligence, but may be difficult to prove.

Nervous shock actions

Patients informed of a false positive HIV infection or of a false diagnosis of cancer as a result of glove powder contamination can sue for nervous shock as a result of the emotional trauma experienced. These actions can give rise to enormous damages.

Both lawyers agreed that failure of a hospital to supply powder-free gloves on the grounds of increased cost and the inability to afford them will not be an acceptable defence in a court of law. Hence, it behoves hospital administrators to weigh the cost of safer gloves against the potentially enormous cost of litigation, which is expected to increase - initiated first by HCWs and then by patients - once a precedent is set.

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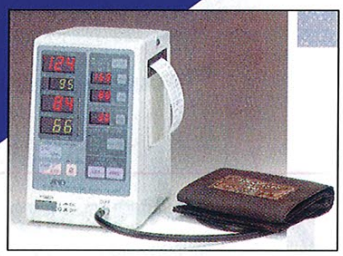
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