Occupational Health Southern Africa

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

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Features:

- An Ethical and Occupational Health Dilemma: High Risk Exposure of HIV-infected individuals to Tuberculosis
- Caring for People with HIV/AIDS - a time for rational thinking
- Service Excellence in Occupational Health - the need to add value
- The role of tertiary occupational medical centres: The King Edward V111 Hospital Experience
- Extracts from South African Labour Law Reports

Occupational Health Southern Africa

This journal focuses on Occupational Health, Primary Health Care at the workplace, Environmental Health, and other employee health benefits

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EDITORIAL

Probably of all the epidemics in the world, nothing compares with AIDS. So much has been discussed and written in terms of the incidence, and the realities of this devastating disease. It is particularly significant that our discipline of Occupational Health has to some extent found to be wanting, (like others), not only from a therapeutic point of view, but also in terms of the ability of affected workers who become increasingly debilitated to continue to be productively employed. On the other hand, the working conditions of today are improving, and the aspects of health and safety have been significantly redesigned; changes have been made which will assist in the correct management of some of the problems associated with AIDS.

This edition focuses on the awful dilemmas, and to recognise problems confronting us right now. London draws attention to this in his survey of the Occupational Health Practitioners in the Western Cape, while Le Grange defines the ethical and Occupational Health dilemma of a high risk exposure of HIV infected individuals to tuberculosis and the management thereof. Furthermore, Naidoo in his letter in the first edition of the journal requested guidance and perhaps more significantly, debate on the particular problems associated with specific categories of work that pose a risk to the worker and others. Arising out of the AIDS Conference, (Legal Rights and Aids in the Health Care Setting), in Johannesburg in July 1994, the issue of confidentiality was mentioned in the editorial of the previous SASOM Newsletter, and which still remains in debate. The guidelines for management of workers and the significance of HIV screening (whether pre-employment or otherwise, is already being challenged by Business South Africa (drafted code), and if we are to adopt a rigid and uncompromising stance, it could have profound implications beyond those which are already facing us.

Evian and Gresak have put forward thought-provoking scenarios about caring for people with HIV/AIDS. Their astute awareness and current proposals to rationalise thinking deserve careful reading and consideration.

Furthermore, so much has been debated about the Aids Education Programme; many find this a complete waste of money, (apparently R10 million has apparently already been spent), and suggestions have been made that we need to gather together and form communal opportunities with a caring philosophy and some guided clinical approaches which incorporate good nursing. Appropriate clinical judgement, with a commitment to facilitate the discomfort and the illnesses associated with AIDS are relevant to the point of being imperative.

The roles of occupational health professionals are further extended to entrench channels of communication and to make commitments towards dealing with the problems as they occur. Initially what was a strange and unknown quantity, has now become a reality which we deal with on a daily basis. What the affected (and other) workers themselves feel, (their thoughts and concerns are not always realised), require closer co-operation and support with commitment from us all. Questions need to be asked: some easier than others. Destigmatisation, the problems of confidentiality, methods required to educate workers and dependents, are all part of this commitment. In particular, those who have full blown AIDS will need support, not only for themselves, but for their dependents as well. This would include maintaining the dignity of their lives and support structures right down to their domiciliary environments.

Chris van Selm
Editor

Diary

11th International Symposium of Epidemiology in Occupational Health (ISEOH)
Place: The Netherlands
Dates: 5 - 8 September 1995
Contact: Conference Secretariat,
Ms Susan Peelan
Dept Epidemiology and Public Health
PO Box 238 6700 AE
Wageningen
The Netherlands
Tel: +31 8370 84124
Fax: +31 8370 82782

Healthy Buildings '95. An international conference on healthy buildings in mild climate
Place: Italy
Dates: 11 - 14 September 1995
Contact: Prof Marco
International Centre for Pesticide Safety
Via Magenta 25
20020 Busto Garolfo
(Milano) Italy
Tel: +39-331-499371-2
Fax: +39-331-568023

International Confererence on the Prevention of Contact Dermatitis (ICPCD)
Place: Zurich, Switzerland
Dates: 4 - 7 October 1995
Contact: ICPCD'95
c/o AKM Congress Service
Clarastrasse 57
PO Box CH-4005 Basel
Switzerland
Tel: +41 61 691 51 11
Fax: +41 691 81 89

Asian Pacific Conference on Occupational Health and Safety
Place: Brisbane, Australia
Dates: 20 - 22 September 1995
Contact: The Secretariat
Workplace Health and Safety Council
GPO Box 69
Brisbane
Q 4001 Australia
Tel: + 07 227 4649
Fax: + 07 239 6956

New national TB register

TB rates in the Western Cape are reported to be amongst the highest in the world. Trends in the coloured population in the region show sustained, steeply rising rates in most age groups and both sexes. This rise is not apparent in coloured communities elsewhere in the country. Increases that amount to a doubling of cases in the last decade can be shown in areas such as Worcester, Paarl, Stellenbosch, Vredenburg-Saldanha, and Moorreesburg, amongst others. Incidence rates of 700 per 100 000 people are reported in some regions.

The uncertainties as to why so much TB seems to be occurring in certain areas and not in others underline the necessity for a surveillance system that will allow for proper analysis of data. Only with sound epidemiologic information will it be possible to target intervention strategies and to allocate resources efficiently, with the aim of achieving a 70% case-finding and 85% cure rate in accordance with World Health Organisation (WHO) directives.

A national register for standardising the recording of information on diagnosis and treatment of tuberculosis (TB) in South Africa will be implemented by the Department of Health at TB clinics nationwide during February 1995.

As a management tool, the register will now make it possible to gather accurate data on the certainty of diagnosis and the outcome of treatment. Previously this information was not nationally collected in a standardised way which made accurate interpretation of TB statistics practically impossible. This has been a major hurdle in improving the TB situation in South Africa.

Based on the framework for TB control as recommended by WHO, the new register will ensure that accurate records of individual patients can be maintained. It also allows for periodic reporting on the efficiency of the national TB control programme in terms of treatment outcome, and the epidemiologic trends of TB in communities. The register contains information on the type of TB, case classification, the results of sputum examinations before and during treatment, as well as information on treatment outcome.

News and Events

Ramazzini Club - Occupational Health Computer Exhibition

Date: 5 July 1995
Venue: NCOH Old Medical School
Time: 09h30 - 15h30
Ramazzini Meeting:
14h00 - 16h00 panel discussions on computer software
Lunch (light buffet):
12h30 - 13h30
RSVP Dehlia Muller 16/6/95
SASOM National Office
(012) 664-1460 between 09h00 - 12h00

Exhibitors
A variety of occupational health software companies
ILO-CIS
Epi-Info
Cd Rom
During the exhibition, visits to the NCOH library will be of interest.

Occupational Hygiene Certificate Course

This is the first professional educational course organised for occupational hygienists, managers and those involved in health promotion in South Africa.
Late July early August 1995
Chaired and led by
Vali Yousefi
NCOH
PO Box 4788 Johannesburg 2000
Tel: (011) 720-5734 Fax: (011) 720-6608

Participating Institutes include:

- National Institute of Occupational Safety and Health (NIOSH), USA;
- American Conference of Governmental Industrial Hygienists;
- Manitoba, Department of Labour, Canada;
- Canadian Centre for Occupational Health and Safety (CCOHS), Canada;
- Aston University, UK;
- University of Portsmouth, UK;
- National Centre for Occupational Health (NCOH), RSA;
- Rand Afrikaans University (Industrial Electronics Research Group, Energy Laboratory, and Manufacturing Programme) RSA;
- Technikon SA, RSA;
- Advanced Transporation Information System (Pty), Ltd RSA;
- Environmental Hygiene Consultant, Pta, RSA.

About the Course

The course will cover emerging trends in the practice of occupational hygiene. At the end of the day the participant will have a good insight of the prediction, protection and prevention of exposure to hazardous agents. Sound occupational hygiene practice by the application of tested management systems will be highlighted. This will enable health professionals in particular, and management in general, to design and implement an appropriate occupational hygiene and health policy programme.

Day	Date	Town
Mon & Tue	24, 25 July '95	Johannesburg
Wed & Thu	26, 27 July '95	Pretoria
Sat & Sun	29, 30 July '95	Bloemfontein
Mon & Tue	31/1 July/Aug '95	Port Elizabeth
Thu & Fri	3, 4 August '95	Cape Town
Mon & Tue	7, 8 August '95	Durban

Day One

1. The nature of stress factors in the work place
2. Multiple chemical sensitivity phenomena
3. Control of health hazards in foundries
4. Health hazard evaluation
5. Possible health hazards of electromagnetic radiation
6. Managing occupational stress
7. Welding fumes
8. Health and safety in chemical industry
9. A lecture from a local speaker which is directly related to the problem of health and safety in this locality.

Day two:

1. The role of human factors and safety culture in health and safety management.
2. Occupational hygiene in developing countries
3. Occupational health and safety acts: their application to workers, managers and corporations.
4. Waste management and the health of the nation.
5. Occupational health: the role of information
6. Total quality management: a tool for health, hygiene and safety management
7. Occupatonal health: emerging trends.
8. Practical risk assessment.
9. Historical development of occupational exposure limits.
10. Introduction to the "BEBOH" certificate.

Registration forms for the first professional educational course held at the following locations:
(please tick your preferred location)

☐ Johannesburg	Date 24 - 25 July 1995
☐ Pretoria	Date 26 - 27 July 1995
☐ Orange Free State	Date 29 - 30 July 1995
☐ Port Elizabeth	Date 31 July, 1 August 1995
☐ Cape Town	Date 3 - 4 August 1995
☐ Durban	Date 7 - 8 August 1995

If the response of any venues is poor we may ask the delegates to come to another location. We are not liable for any changes to the programme due to unforeseen circumstances.

Name: .....
Address: .....
.....
.....
Tel .....Fax: .....
Correspondence to be marked for the attention of:
.....
Please reserve place(s) for the following delegates(s):
1. Name: .....
Job Title .....
2. Name: .....
Job Title .....
3. Name .....
Job Title .....

Our cheque to the value of R.....being payment at the rate of R2,500.00 per delegate is enclosed and made payable to RAU/Energy Laboratory (OHCC) or fax your booking form and payment by 15 June 1995 to Ria le Roux
ax No (011) 489-2466)

Authorised (Full name)
.....
Signatory
Date: .....

Exhibitors are also invited to exhibit stands at R1,000.00 for two days.

Return this form to:
Ria le Roux
Energy Laboratory, Rand Afrikaans University,
PO Box 524
Auckland Park 2006

Visit of the Health and Safety Executive of the International Chromium Development Association to South Africa

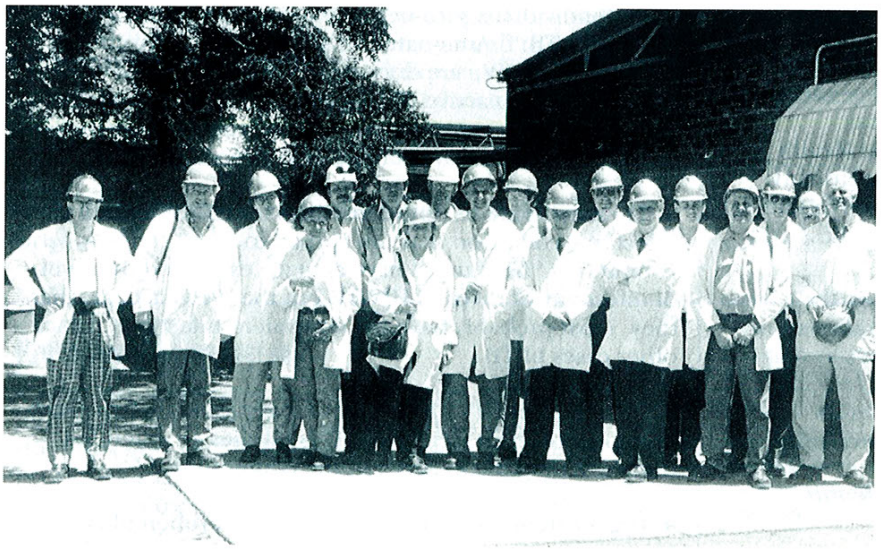
South Africa is flavour of the month on international visitors' itinerary. It was no surprise therefore that the Health and Safety Executive of the International Chromium Development Association (ICDA) visited sunny South Africa for a three day workshop in February 1995.

This erudite group debated health and safety issues with regard to the different species of chromium at a meeting in Johannesburg. They also visited the ferrochrome works of Middelburg Ferrochrome and saw new technology for reducing worker hazard exposure at Columbus Stainless in Middelburg.

Of interest, 60% of the world's chromium reserves are found in southern Africa - South Africa and Zimbabwe. ICDA has published excellent guidelines regarding the Health, Safety and Environmental aspects of Chromium. These are available on request from their office in Paris : ICDA, 45 rue de Lisbonne, 75008 Paris, France.

Dr Des Whitaker, now retired from Barlow Rand South Africa, was instrumental in drawing up the initial guidelines in 1992 and these were revised in 1994. Below is a photograph of some of the international delegates and wives from Finland, Norway, France, England and Zimbabwe accompanied by some of their South African hosts.

Fifth from left, Marie Solarge-Pollard, Secretary of ICDA. Extreme right, Christian Bozec of Eramet, Main adviser to ICDA



The Commission of Inquiry into Safety and Health in the Mining Industry (Leon Commission)

Lettie la Grange, Epidemiologist and Assistant Health Adviser, Chamber of Mines of South Africa.

The Commission of Inquiry namely the Leon Commission resulted from a joint decision by the Chamber of Mines (COM) and the National Union of Mineworkers (NUM) taken at the Mining Industry Summit.

The members of the Commission were:

The Honourable Mr Justice RN Leon (Chairperson)

Professor Miklos DG Salamon

Professor Albert W Davies

Professor John CA Davies

The Inquiry took place in an open and transparent manner, from July 18 1994 till August 24 1994 with the terms of reference to investigate all aspects of the legal regulation of health and safety in the mining industry.

This lengthy report has now been presented to the State President with its findings and recommendations. A brief summary of the main recommendations that apply to health are inter alia:

- A new Health and Safety in Mines Act to be drafted by a Mines Regulatory Advisory Committee (MRAC):
- Express powers to the Government Mining Engineer (Department of Mineral and Energy Affairs) to control occupational health hazards
- Upgrading of the Mine Health and Safety Inspectorate including a Medical Inspector of Mines with expertise in occupational health
- To establish in the new Act, a Mine Health and Safety Council to advise the Minister through the Government Mining Engineer on all matters relating to health and safety in mines, the relevant legislation and the enforcement thereof
- The Medical Bureau for Occupational Diseases to be transferred back to the Government Mining Engineer
- Regulations to ensure a coherent process which conforms to the fundamental principles of modern occupational health practice
- That the mining houses take a policy decision to move towards family housing over a period of time and that in the meantime steps are taken to upgrade existing hostels where reasonably practicable
- Urgent steps to correct the imbalance between safety and health which pervades in the legislation
- A renewed effort to control the spread of tuberculosis among mine workers
- Amalgamating the disparate data bases and ensuring availability in the public domain
- The Safety in Mines Research Advisory Committee (SIMRAC) should continue to be responsible for research within the industry, including health research
- Greater worker participation in health and safety issues.

The report was welcomed by both the NUM and the COM as constituting a serious attempt to improve safety and health on South African mines.

The eventual outcome and impact of this report will be through a long process of consultation and negotiations in the tripartite bodies established at all levels.

News and Events

Original and Review Article

An Ethical and Occupational Health Dilemma: High Risk Exposure of HIV-infected individuals to Tuberculosis

MAC La Grange

The provision of humane and competent care for HIV infected individuals, whilst considering ethical implications, present a daunting challenge to health care services. The association between HIV infection and TB has further complicated the prevention, diagnosis and treatment of the latter and resulted in ethical dilemmas as to the management of this dual infection. HIV infected cases have a higher risk of developing active TB, are more difficult to diagnose, present atypically with more extra-pulmonary infections and are often associated with multi-drug resistance. High risk exposure of the HIV-infected to TB will have catastrophic consequences resulting in an escalation of TB as already experienced elsewhere in Africa.

The Occupational Health Practitioner is confronted with this dilemma at pre-employment examinations where employment carries an exceptional high risk exposure to TB such as Health Care Workers in TB wards, hospitals and pulmonology units. Other workers exposed to this biological hazard include laboratory technicians and all workers where silica dust exposure is a factor which per se increases the risk for TB. Occupational Health principles prescribes the exclusion of susceptible individuals from high risk work or failing that, at least appropriate protection. This would implicate the screening and exclusion of HIV infected from high risk of TB or preventive chemotherapy which is not without problems. Having no knowledge of HIV status renders the Occupational Health Practitioner unable to intervene to the benefit of the worker or the worker's contacts.

Introduction

It has been stated that the Human Immunodeficiency Virus (HIV) would test the health care fraternity and society as a whole as to the humane and ethical management of this pandemic.[1,2] Occupational Health Practitioners (OHP) will have to deal with symptomatic HIV infection as well as the ethical problems surrounding pre-employment examinations, evaluation of fitness and the termination of service .[3]

According to Occupational Health principles, the rationale for pre-employment and periodic examinations is to evaluate aptitude for specific types of work and to prevent exposure of susceptible individuals to certain risks, be it physical, chemical or biological hazards. Considering these risks, an OHP must constantly take cognisance of the interactive risk to the individual, fellow workers and the larger community.

Focus has been placed on testing and the regulation thereof, as a means to control discrimination against HIV infected individuals. Codes of Conduct have been proposed by the Aids Consortium and recommended to the National Manpower Commission to prevent discrimination and unfair exclusion of HIV infected individuals from available job opportunities solely on account of HIV status.

Unfortunately, these good intentions and limitations on testing are obstructing physicians in the proper execution of their professional duties, where knowledge of HIV status affects individuals' diagnosis and treatment as well as actions to protect the rights of the community. The OHP specifically experiences this health care predicament in relation to Tuberculosis, which is an ethical dilemma which needs to be debated.

Tuberculosis and HIV infection

The "cursed duet" of infection with the Human Immunodeficiency Virus and Tuberculosis (HIV-TB) has reduced optimism for controlling TB world wide, and has created a public health emergency with regard to the prevention, management and control of HIV-TB.[4] This is due to the fact that TB is the only communicable opportunistic infection affecting the HIV infected and can thus spread to the general population.[5,6]

Although HIV infected individuals with TB respond favourably to treatment, there are certain elements of HIV-TB which need consideration namely:

1. HIV infected individuals have a higher risk of acquiring TB, following the reactivation of dormant bacilli or from external infection. [4,7,8,9] This risk has been documented to be substantially higher, in the order of at least a 7 times that of individuals sero-negative for HIV and a 50% lifetime risk to get TB.[4,10] Ante-natal clinic attenders in Rwanda, infected with HIV, are documented to have a Relative Risk of 22 to develop active TB compared with those who are sero-negative.[11] In Canada this risk of acquiring active TB is 400 times that of the general population.[12]

2. These individuals , once infected with TB, harbour an infectious condition that can spread to the rest of the community.[4] No studies have actually estimated the level of infectivity of cases of HIV-TB but the WHO accepts that they most probably have the equivalent infectious risk of other cases of TB.

3. Infectivity of HIV-TB may last longer even after the start of appropriate TB treatment. This implies an extended period of risk to contacts and the community.[13]

4. Higher numbers of multidrug resistant tuberculosis

MAC La Grange , Epidemiologist / Assistant Health Adviser, Chamber of Mines of South Africa

(MDR-TB) are associated with HIV infection.[4] This type of infection has produced a high fatality rate in HIV infected individuals.[7,13] MDR -TB in itself is a threat to all contacts and health care workers because of the difficulty in treating it effectively and could make TB once again an incurable disease. The cost of treating MDR-TB cases is much higher than other TB cases and could become prohibitively expensive or unaffordable.[14]

5. HIV-TB poses diagnostic problems: extra-pulmonary TB occurs more frequently and presents with different clinical pictures from the usual cavitory Pulmonary TB.[4,13,15] The delay in diagnosis results in more infective cases waiting for longer periods before appropriate treatment is started.

6. Delays in instituting treatment and higher costs result from the higher incidence of smear-negative sputa in HIV-TB. Diagnosis is more difficult and more cultures are necessitated by this factor.[16]

7. HIV infected individuals who acquire TB have a reduced life expectancy and active Tuberculosis accelerates progression to clinical AIDS.[4,17,18]

Taking all of the above into consideration it would be poor and unethical Occupational Health Practice to employ an HIV infected person where there is the biological hazard of exposure to TB. Being more susceptible, such an individual will most certainly get TB, resulting in accelerated progression to AIDS and a decreased life expectancy. Clinicians will also be confronted with diagnostic and treatment difficulties as well as significant implications for disease control.

Employment categories where workers are exposed to a high risk for TB are:

a) Health Care Workers, especially where many cases of TB are treated such as TB clinics, wards, hospitals, nursing homes and facilities such as SANTA. Sputum collection may be especially hazardous to these HCW's and thus this risk would also specifically apply to physiotherapists and people in pulmonology units.[6,13,14] Because of concern over this occupational risk, the U.S. Occupational Safety and Health Administration (OSHA) included tuberculosis amongst workplace hazards that can seriously harm or kill employees and mandated that health care institutions take the steps necessary to eliminate employees' risk for tuberculosis.[19]

b) Technicians handling hazardous biological substances which might include TB

c) Workers in foundries, metal mining (Tin, Gold, Copper, Chrome), quarries, coal mines and the stone cutting industry where Silica dust exposure takes place resulting in pulmonary parenchymal damage which is associated with higher rates of TB and higher mortality rates resulting from the latter.[20,21]

d) Social Workers at shelters for the homeless and prisons.[3]

Preventive chemotherapy

The only alternative to excluding HIV infected individuals from exposure to TB, or high risk for TB, is to use preventive chemotherapy.[17,22] Presently Isoniazid (INH) prophylaxis is recommended by the American Thoracic Society, Centre for Disease Control (CDC) and the WHO for all individuals that are HIV positive with positive PPD skin tests or previous TB.[17,23,24]

The risk of using INH as prophylaxis for TB is the development of, and selection for, drug resistance and the disaster of MDR-TB which further complicates the management of TB.[4] Hepatitis remains a problem when using INH for long periods.[25]

Combination preventive chemotherapy becomes prohibitively expensive and has not been proven to be efficacious or effective in humans.[26]

However, knowledge of HIV status is a pre-requisite for intervention and applies as well to other measures which can be taken to prevent opportunistic infections in HIV positive persons (e.g. Pneumococcus, Pneumocystis carinii, Toxoplasma gondii, Cryptococcus, Herpesvirus etc.).[18] The inability to test for HIV renders HCW's and OHP unable to act.[27,28]

Ethical considerations

Testing for HIV needs informed consent, followed by appropriate counselling should a positive test result. Denial of employment solely on HIV status is presently condemned as outright discriminatory and the question is whether society is willing to make the decision as to how to approach this dilemma of HIV and TB. Even if the candidate is willing to accept the increased risk of exposure to the TB hazard with indemnity of the employer, it does not solve the problems of the additional risk of MDR-TB development and the risk to fellow workers and the community which the employer must also observe.[5]

Conclusions

Scientific evidence and sound Occupational Health Principles dictates that screening for HIV infection is needed as well as preventing infected individuals to do high risk work where TB and MDR- TB are biological hazards. Calls for protective measures such as chemoprophylaxis is not without additional hazards.

In order to apply appropriate and effective measures in the above instances the OHP must know the HIV status of the employee. Without this there will be significantly more cases of TB and an increased risk of TB to fellow workers and the larger community.

This ethical and occupational health dilemma confronting OHP's and HCW's needs to be debated by the health care sector and society at large. The advent of HIV has profoundly changed the approach to TB as an occupational hazard and also has become a problem that society needs to face because of the social and economic implications. OH

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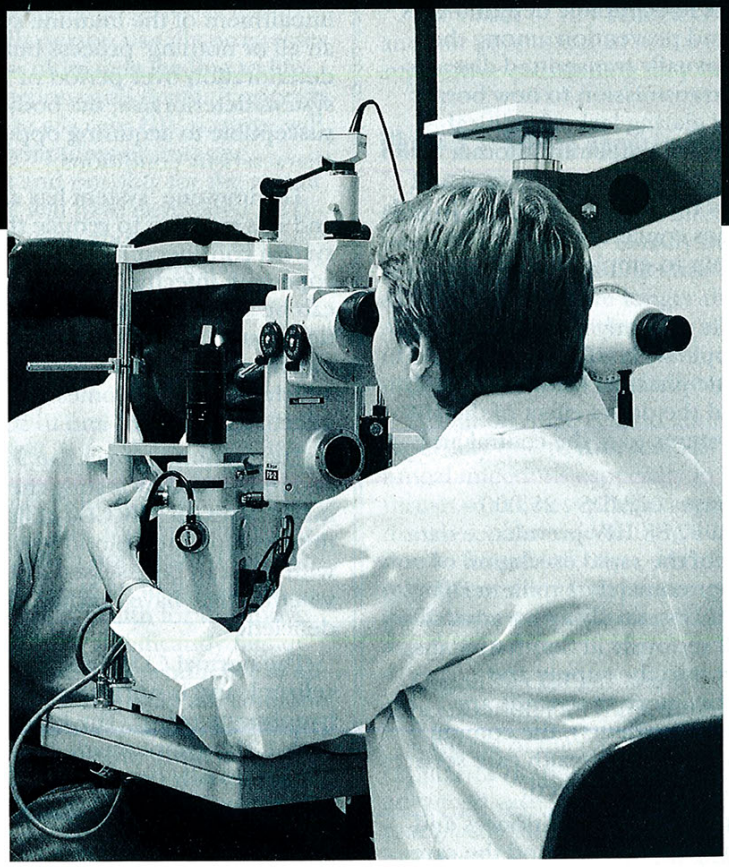
There is someone who cares about your Occupational Health and Trauma problems



The Rand Mutual Hospital has over 40 years experience in providing comprehensive medical services to the Mining Industry and other employers. Problems ranging from minor injuries to cases requiring highly specialised treatment and advice. The Hospital is supported by six highly advanced theatres, a well-equipped intensive care unit, several high care wards (including a burn unit) and one of the most sophisticated spinal units in South Africa. An around the clock professional service is available, with each dedicated department headed by a specialist. RMH also provides full psychiatric, physiotherapy, occupational therapy, audiology and speech therapy services.

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Trading as Rand Mutual Hospital

FOR MORE INFORMATION CONTACT THE MEDICAL SUPERINTENDENT TELEPHONE (011) 493-4900

Original and Review Article

Caring for people with HIV/AIDS - a time for rational thinking

Clive Evian, Gillian Gresak

The debate around AIDS, until now, has largely revolved around the data and statistics on the size of the national epidemic, the 'doomsday' scenarios, the sensations such as the Magic Johnsons, Freddie Mercurys, Authur Ashes etc., and the largely negative and damaging portrayal of AIDS by the media and other influences on our largely already brutalised South African society.

Very little meaningful debate or discussion has been centered on the important socio-economic determinants of the epidemic, education and prevention among the youth, the association with sexually transmitted diseases, the potential for preventing transmission to new born babies or on the obvious and glaring lack of political commitment and response to the epidemic. Another important area which requires attention is the care and support of people affected by the disease. This article will address some important issues concerning this latter issue, especially in relationship to employees and the workplace.

The impact of the epidemic will only be materially felt when the large numbers people with HIV infection progress into the symptomatic phase of serious opportunistic infections, and the direct effect of the HIV infection on certain organ systems (e.g. the central and peripheral nervous system).

Currently the number of cases of AIDS , 25,000 - 35,000, extrapolates to the 1987/88 HIV prevalence data. However, we are fully aware of the rapid escalation of cases in the years ahead (approximately 1 million HIV infected by end of 1994, 7.6% of sexually active adults). Whilst approximately 35,000 seriously ill South Africans, will not make a major indent into the supply and provision of health care (many more thousands are seriously injured in road traffic accidents), the coming escalation will surely tax and stress the health care services and resources, unless appropriately managed.

It is important for human resource practitioners and company medical officers to clearly understand the care issues and facts so as to make informed and accurate decisions.

HIV/AIDS - the clinical course

The clinical course of an adult person with HIV infection follows a reasonably predictable course.

There are essentially two major processes and three blurred phases which determine the clinical course of an individual who is HIV infected:

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Two main processes:

The initial or primary process is the development of immune deficiency. The HIV virus has a predilection for the immune cells of the body. There are a number of target immune cells such as macrophages, dendritic cells; and the CD4 lymphocyte, (also called the 'T4 helper' cell), which is one of the most important immune cell types to be infected and affected by HIV. The CD4 cell has critical functions in the control and co-ordination of the immune system and damage to these cells ultimately results in impaired immunity with a resultant defect in the protective and healing function of the immune system.The impairment of the immune system in HIV infection is 'not an all or nothing' process but rather a slow and gradual deterioration over period of 5 -10 years. As the immune system deteriorates, the body becomes more and more susceptible to acquiring opportunistic infections and other characteristic conditions.

The immune system has an inherent 'reserve' capacity and it is possible to reduce the capacity of the immune system considerably before the system will not be able to cope with infective challenges. As such the immune system can be slowly and systematically reduced over a period of time, but it will not result in any major clinical immune incompetence until a critical deficiency is reached, after which the body becomes more and more susceptible to infective conditions and to some cancers.

The immune system can to some extent be appraised and monitored by testing the blood for specific immune markers (especially CD4 cells in HIV infection) and determining their blood levels. In this way, individuals with HIV can be assessed as to how advanced they are and whether they have reached the critical stages of immune deficiency.

The normal CD4 cells count is between 500 - 2000 cells/ml, and is normally more than 30% of the total lymphocyte count. The CD4:8 cell ratio is normally greater than 1.The symptomatic phase of HIV infection (see below) usually occurs with CD4 cell counts below 350 cells/ml and AIDS is defined by a CD4 cell count of < 200 cells/ml and/or the presence of an AIDS defining condition.

It must be appreciated that some individuals can immunologically cope with a lower CD4 count than others. Some individuals may develop oral thrush, or herpes zoster, or TB at CD4 cell counts around 350 whilst others may not develop any sign of these opportunistic conditions until their count drops below 150 for example.

The health status of an individual is usually very good and almost normal until there is a critical lowering of the immune capacity.

The secondary process occurring in the person with HIV infection is acquiring infections and other conditions as a result of the immune deficiency. The HIV virus can

itself cause functional impairment of especially the brain and other nervous tissues and the muscle, however it is not until the immune state is severely depressed, that the virus itself usually impairs function of these organs other than the immune system.

As the immune system deteriorates, the body becomes more and more susceptible to the reactivation of infections which are dormant in the body (e.g. tuberculosis and herpes infections e.g. cold sores, shingles and genital herpes sores) and to ever present pathogens such as candida albicans (thrush). Later the body becomes susceptible to new and unusual infections such as pnemocystis carinii, fungi, toxoplasma, cytomegalovirus etc.

Besides opportunistic infections, the nervous system is also very vulnerable to HIV infection, as is the muscle mass. Some cancers, especially of the lymph glands (lymphoma) and the blood capillaries (Kaposi sarcoma) are also commonly found in people with AIDS.

3 main clinical phases:

The clinical course can be described in three phases, although the distinction between the phases is not distinct nor clear cut.

After HIV infection, the adult person usually progresses through various clinical stages, ultimately leading to life threatening opportunistic infections and death. It appears that approximately 5% of those who are HIV positive will not develop any HIV related symptoms or immune deficiency for at least 15 years and possibly for the rest of their lives. Approximately 60% will have developed AIDS with in 10 years. On average it takes about 8 years to develop AIDS and thereafter death within 3 years, following a debilitating and progressive decline.

Phase 1 - Asymptomatic phase

After HIV infection, an individual will remain well and seemingly healthy for an average of 5-7 years. There is a mild 'sero-conversion' or primary HIV infection illness approximately 6 weeks after infection, however this illness is generally non specific and 'flu' like (lymphadenopathy, myalgia, arthralgia, fever etc.), often not recalled by patients with HIV. Besides this illness an individual is likely to remain in reasonably good health for the above period. The patient should not have significantly higher claims on their medical aids and be fully productive at all categories of jobs. Mild tiredness and fatigue are common symptoms. Occasional skin rashes and painless swelling of the lymph glands in the neck, armpit and groin is common.

The immune system will often show laboratory evidence of early immune deficiency, but this is not evident without laboratory testing . The majority of patients in this phase of the disease are unaware of their HIV infection and continue with their normal lives. For those whose diagnosis is known, usually from screening during pregnancy, blood donation or for insurance purposes, there is a major psycho-social adjustment that has to be made. The diagnosis of HIV positivity usually causes an acute crisis for the person often with a resultant depression and psycho-social support for which crisis counselling is often necessary and highly recommended.

Phase 2 - Mild to moderate opportunistic infections

After the initial asymptomatic phase, which usually lasts 5-7 years, the patient will start experiencing various signs and symptoms relating to opportunistic infections. This usually coincides with CD4 cell counts less than 350/ml .

Common early infections include, herpes zoster (shingles), herpes simplex (cold sores)

Genital and peri anal herpes, mouth ulcers, thrush in the mouth and vagina, tuberculosis,skin rashes (e.g. - fungal infections, folliculitis, boils, dermatitis, excema and seborrhoeic dermatitis)

Common signs and symptoms include swelling of the lymph glands, unexplained fevers and night sweats, fatigue and tiredness, poor healing of some sexually transmitted diseases such as chancroid and genital herpes, and early peripheral neuropathy.

These and other conditions can usually be effectively treated and the patient can be kept in reasonably good health in between the bouts of illness. During this phase, employees could be expected to have a slightly increased absenteeism rate and regular albeit moderate claims on the medical aid schemes. These would include regular visits to a doctor, medications, occasional laboratory and xray investigations and rare admissions into hospital for usually short stays.

The onset of HIV related conditions is commonly another psychological setback to an individual and supportive counselling may be necessary.

Phase 3 - Severe opportunistic infections - AIDS

As the immune state becomes more depleted the frequency and severity of infections and other conditions increase. This phase usually develops approximately 8-9 years after the initial infection. On average a person with AIDS will not survive longer than 2-3 years. The onset of AIDS usually coincides with a CD4 cell below 200cells/ml of blood which indicates an immune deficiency in the order of 20% of its original capacity.

Common AIDS related conditions include, pneumonia especially due to tuberculosis and pneumocystis carinii, fungal infections especially in the mouth (thrush) and thrush of the oesophagus, severe and ongoing diarrhoeal diseases, often due to fungal infection, meningitis, often due to fungal infection, peripheral neuropathy, skin infections, dermatitis, wasting of the muscle mass, extra pulmonary tuberculosis, weight loss and severe weakness and fatigue.

Cognitive changes, memory loss, difficulty with concentration and frank dementia may also occur.

Cancers of the lymph nodes (lymphoma) and blood capillaries (Kaposi sarcoma) may be seen, and in more advanced cases, viral infection of the retina (CMV) or toxoplasmosis may result in visual disturbances and even blindness. Infections of the brain from toxoplasmosis, bacteria and fungi may also complicate the nervous system involvement.

There can also be functional disturbances in other organs such as kidney, liver, heart, muscle etc. from the direct effect of the virus..

As the immune states deteriorates, the infections become more and more common and severe and, ultimately, death occurs from severe intractable infection, weight loss, weakness, and prostration.1

Many of the above conditions can be individually treated and the patient can be brought back to reasonably productive health; however this potential diminishes as time progresses and as the immune state deteriorates.

During the AIDS phase an employee will commonly need a significant amount of time to seek medical help, counselling and be absent from work due to illness. Demands on medical aids, if not properly managed, could be very high and may often exhaust the usual limits.

Hospitalisation for periodic problems is common and the cost investigating illness may be unaffordable. Employees will invariably need to be boarded or dismissed and claims can be expected on disability schemes and ultimately on group life insurance.

Opportunities exist to manage the terminal phase more rationally and to reduce diagnostic and curative costs in favour of nursing, pain control and hospice-like care (see below).

Peri-natal transmission

The best news so far, towards the control of the disease, concerns the potential for preventing HIV transmission from mother to child. In 1994 the results of the combined American and French trial, giving AZT to asymptomatic HIV positive pregnant women, and to the infant for the first 6 weeks of life demonstrated a 60% reduction of HIV transmission to the new-born in mothers given the AZT compared to placebo. The Centre for Disease Control (CDC) in Atlanta have recommended the use of AZT in asymptomatic pregnant women.[2]

This trial and recommendation has passed almost unnoticed by the media and by the health care administrators, however, this has major implications for South Africa and cannot be continuously ignored by the health care industry and by the public health authorities.

Medical Care

There is still no definitive cure nor control for the disease and the future in this regard is somewhat pessimistic. The major break throughs have come from controlling some of the major opportunistic infections such as tuberculosis, pnemocystis carinii pneumonia, toxoplasmosis, candidiasis and herpes infections. This has been mainly achieved through the use of chemoprophlactic agents (co-trimoxazole, INH, antifungals, acyclovir) given on a regular basis when CD4 cells drop below 200 (and below 300 for TB prophylaxis).

Anti-retroviral drugs such as AZT (Zidovudine or Retrovir) DDI (Videx) or DDC (HIVID) have a limited role to play. These agents have the ability to usually delay or halt the progress of immune deficiency. The effect is limited and usually delays progress by 6-18 months. The potential for harmful side effects and drug resistance, usually limits their use to a few years, and for many the expense is prohibitive (cost usually R550 - R800 per month each). Drug trials currently underway have shown improved results if the above drugs are combined rather than used monotherapeutically, however this increases the cost and side effects. Newer anti retrovirals will surely enter the market in the future. Current thinking favours the earlier use of these agents rather than leaving it too late, and most practitioners commence anti-retrovirals when the CD4 count drops below 500 cells/ml are very expensive with limited efficacy.

Regular medical monitoring, early therapeutic interventions, prophylaxis against opportunistic infections and anti retroviral therapy with counselling as required, offers an HIV positive person hope and the likelihood of a reasonable period for a normal and productive life. The average life expectancy from the time of infection is about 10 years.

Health Care

In countries such as Uganda, which are approximately 5 years ahead of South Africa in the evolution of the epidemic, over 50% of all hospital beds are occupied by people with HIV related conditions and up to 60% in the central teaching hospital in Lusaka, Zambia.[3] The effect of HIV has often resulted in the 'crowding out' of other conditions from the wards and the admission of only very severely ill patients. It is estimated that by the year 2000 in South Africa, HIV will consume between 22% (low hospital care) and 50% (high hospital care) of the total public health care expenditure and approximately 16% and 30% respectively of the private health expenditure.

The major cost of hospital care is the bed itself, which consumes over 60% of the total cost.

Developing a good primary HIV care infrastructure and facilities, managed care, and multiple levels of care such as community hospitals, day care, short stay care, community and home care, help to reduce these costs and keep patients out of hospital.

Managed HIV/AIDS Care

At a first glance, the magnitude of the epidemic and the potential health care costs seem awesome and overwhelming, which has elicited a corresponding knee jerk response from the medical insurance industry and from the public health sector. The vast majority of medical aids have simply excluded HIV/AIDS from any reasonable benefit, usually in the region of R100 per member per year!, and a few medical aids provide cover ranging from R1000-R4000/year.

However, the problem for medical schemes is in recognising HIV/AIDS related claims. Most of the HIV related conditions are not AIDS or HIV specific and therefore most of the claims can be 'masked' as claims for other conditions such as `pneumonia', 'diarrhoea', 'headache' etc.

By irrationally and unfairly restricting benefits the medical schemes have promoted an active collusion between doctors and patients in successfully 'masking' HIV related claims and medications to by-pass the restrictions. Medical schemes have very poor control and monitoring mechanisms if claims for HIV/AIDS are so 'masked'.

The public hospitals refuse to dispense anti-retroviral therapy, unless infection was acquired by blood transfusion, have ignored the CDC recommendations for neonatal transmission prevention, and there has been no meaningful forward planning for the care and support of people with the disease.

This state of affairs is unacceptable, immoral, irrational and short sighted and on shaky constitutional grounds.

The way forward

The HIV condition offers opportunities for a rational and cost effective approach to care. As discussed above, the first 5-7 years of the infection should only place minor to moderate demands on health care resources. The vast majority of patients will be asymptomatic or suffer from periodic minor conditions, simply treated and monitored at the primary care level. The costs for care during this period will in all likelihood be considerably less than the costs for managing a mild to moderate hypertensive, diabetic, epileptic or one of the numerous chronic smoking related disorders. HIV can be managed according to strict management protocols and basic and cost effective antimicrobials and other commonly used medications can be used until the

development of advanced immune deficiency. Alexander Forbes health Care Consultants have already developed a cost effective managed care protocol for adoption by health care insurers .

There can be no justifiable reason to withhold funding for such care. Affording the patient the opportunity for proper care helps to keep the individual well, productive, earning and a contributor to the scheme. Contributions by the member spanning the asymptomatic and mildly symptomatic years should comfortably cover the medical costs over this period. However, this assumes responsible and ethical behaviour and practice by the members and providers and adherence to protocol and to confidential HIV disclosure to the scheme.

Medical aid schemes will need to develop acceptable care protocols and educate providers and users on how to correctly apply them as well as the mutual \benefits which they provide.

Developing appropriate primary care facilities and services and on site services at the workplace will further reduce the cost burden.

The problem becomes more acute during the AIDS phase of the condition. Again managed care will be able to control costs to some extent and the development of appropriate health care facilities will also contribute to controlling costs. At some point in the progression of the disease, at the terminal phase, care needs to concentrate on palliation and comfort, rather than costly investigation and diagnosis of the myriad of AIDS related conditions in the face of a clinically terminal situation. Management protocols for this stage can also provide cost effective and rational use of funds. Moving from brain scans,, and the costly biochemical and radiological investigation etc. in the face of a severely immunocompromised patient to hospice terminal care with counselling and support, at an appropriate time is both cost effective and humane.

With the development of short stay facilities such as day hospitals for people with AIDS, hospice like services and a wider and better developed home care infrastructure, the provision and funding of care services should be possible and affordable.

Corporate responses

Corporations have a major role to play in the provision of HIV related health care for their employees. While the waters are still relatively calm, corporates should be looking ahead, planning for the provision of primary care services, and seeking out managed care options to provide for the future needs of the inevitable epidemic.

In the short term corporates should be putting into action active AIDS Programmes including preventive education, active policies, employee benefit schemes, prevention and care for sexually transmitted diseases and monitoring of the epidemic in general. OH

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What is being done about aids at the workplace: An investigation of workplaces in the Western Cape

L London

Little data is available on the extent of AIDS prevention activities at South African workplaces. In response to a pilot study in 1994 suggesting that few manufacturing companies in the Western Cape had any AIDS programmes, a postal survey of all members of the Western Cape branch of the South African Society of Occupational Health Nurses (SASOHN) was performed to assess the extent of AIDS programmes in companies where occupational health personnel were employed. Results showed that levels of training of occupational health staff were high. Treatment of sexually-transmitted diseases (STDs) was reported in slightly over half of the sample, while counselling activities related to STDs were more frequently reported.

Nonetheless, given the central importance of STD treatment for the prevention and control of AIDS, improvements in STD management at the workplace may significantly assist attempts at the public health control of the HIV epidemic. Additional improvements in workplace AIDS prevention activities may be achieved by making attitudinal and behavioural objectives the target of education programmes, as well as developing planned methodologies for evaluation of AIDS programmes. Worker involvement in the planning, management and implementation of AIDS prevention activities is also limited at present and needs attention. Nonetheless, the data suggest overall that a number of workplaces are running fairly comprehensive AIDS programmes, and could make a major contribution to the public health control of HIV infection.

The Human Immunodeficiency Virus (HIV) epidemic is one of the major public health challenges facing South Africa today. The rapid increase in HIV infection and subsequent AIDS morbidity will lead to huge demands on scarce health care resources, a devastating impact on the economy and to untold human suffering and death.[1] Despite this, important interventions can be made to reduce the impact of the epidemic, with the workplace being an important target group for AIDS prevention.[2,3]

However, very little is known about the extent of AIDS prevention activities taking place in South African workplaces. One recent report suggested that less than 5% of workplaces had "done anything about AIDS".[1] Initiatives that have been described include workplace-based education programmes,[4,5] trade-union driven policy and prevention initiatives,[6] or management policy initiatives.[7] A recent pilot study in the Western Cape based on the Cape Town Chamber of Industries listing found that 44% of companies employing more than 75 workers in the food, clothing and textile industries reported running AIDS programmes.[8] However, the extent and effectiveness of these programmes (and the veracity of the responses) could not be documented and the pilot survey results may only be regarded as tentative.

Because occupational health services may be able to play a critical role in the prevention and control of AIDS,[3,9,10] this study aimed to describe current AIDS prevention activities at workplaces in the Western Cape with a view to identifying further possible interventions that assist in an overall AIDS control strategy. Given the importance of the management of STDs as a strategy for the control of AIDS,[2,11,12,13,14] workplace management of STDs was given particular attention.

Materials and methods

The study was designed as a cross-sectional descriptive survey. The membership listing of the Western Cape branch of the South African Society of Occupational Health Nurses (SASOHN) was chosen as the study population. This particular study population was chosen as a presumptively best-case scenario which would be useful for future planning purposes. All nurses on the SASOHN Western Cape mailing list were included in the sampling frame. Nurses who were found to be no longer working in industry, or whose work addresses fell outside of the Western Cape were excluded, leaving a total of 98 nurses.

Data was collected by means of a semi-structured self-administered postal questionnaire. The questionnaire had been developed in a previous pilot study involving telephonic interviews with workplace staff responsible for AIDS activities at workplaces in the food, clothing and textile industries in the Western Cape.[8] The questionnaire was accompanied by a covering letter from the chairperson of the local SASOHN, and a pre-paid addressed envelope. Postal reminders were sent at 3 and 6 months after the initial questionnaire was sent out. Validity and reliability of the reported data was not assessed further. The returned questionnaires were checked by a single research assistant for inaccuracies and data entered onto a PC using Dbase 3+. Post-coding was used for responses to open-ended and partially open-ended questions. Analyses were performed using Epi-Info Version 5.

Results

A total of 59 out of 98 nurses on the listing completed and returned the questionnaire, yielding a response rate of 60%. Given the anonymous nature of the survey, it was not possible to follow up non-responders to identify any differences from responders. The majority of companies were in the manufacturing sector (61%) and most were large enterprises (85% employed more than 100 staff members in total). The typical set up in most companies was that a full-time (75%) or part-time (25%) nurse would be employed, usually with a doctor doing sessions at the workplace (63%).

Sixty-eight percent of respondents reported that staff at the workplace had undergone specific training in AIDS/HIV. This was usually the occupational health nursing staff (72% of those trained) although workers were reported as

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receiving specific training in 10% of workplaces. The usual type of training was most commonly reported to be an AIDS Training and Counselling Centre (ATICC) course (25%, or 42% of those trained), although many respondents did not identify the type of training.

Over three-quarters identified education and information as the most important priority for AIDS prevention at their workplace. Less commonly reported issues are listed in Table 1. Condom distribution was not reported as a first priority by any respondents but was the second most common priority listed overall. In other words, it was seen as an important intervention but secondary to other interventions. All companies reported distributing condoms free of charge, usually from the factory clinic. Twenty percent of respondents reported that they were involved in educational activities directed outside of the workplace.

Table 1.
Priorities for AIDS Prevention at the Workplace #

	First * Priority	Any * Priority
Education, training and information	75	81
Gaining management support	2	5
Worker awareness through counselling	10	20
Loss productivity	2	3
Behaviour and attitude change	2	5
Availability and usage of condoms	0	25
"Culture"	0	2
Information in communities	0	2
Sufficient time for educ activities	0	2
Availability of trained educators	0	2
Placement of HIV cases	0	2
Follow-up of training	0	2
Confidentiality	0	2

- Responses to an open-ended question were post-coded
* - First priority is based on first responses to questions on what workplace priorities for AIDS prevention should be; Any priority is based on all responses, since respondents were given the opportunity to give more than one response.

In response to the question on evaluation of programmes, 36% of respondents gave replies that indicated they had implemented any evaluation. These methods were usually by means of replies to questionnaires, or questions (24%). Many respondents commented that they had no results or were uncertain about the impact of their programme activities (29%). A minority of respondents (7%) identified a change in attitude, and an increase in condom usage as indicators, but did not specify how this was measured.

The most commonly reported problems encountered in AIDS prevention at the workplace are listed in Table 11.

Nineteen companies (32%) reported testing for HIV. This was usually in the course of service (15 companies) or as part of a pre-employment examination (8 companies). Testing for HIV was reported as equally practised among salaried and wage-earning staff. Sixty-three percent reported having an AIDS policy at the workplace. Twenty of these 35 companies (57%) said this had been negotiated with the Trade Union.

Thirty three companies (56%) reported that they treated STDs, while 72% said that they counselled STD patients and 32% reported tracing contacts of STD patients. Only three companies reported that STDs were uncommon in their set-up. Counselling family members of HIV positive staff was reported by 25% of respondents. Referral of patients for testing, counselling and management included both ATICC services as well as local and provincial authority health services.

Table 11.
Most commonly reported problems encountered in AIDS prevention at the workplace

- Lack of time allocated - 32%
- Attitudes and perceptions - 25%
- Poor management interest - 12%
- Language/cultural barriers - 8%
- Poor worker attendance - 5%
- Other / no info - 17%

Within the organisational structures of the workplace, AIDS/HIV programmes were usually the responsibility of a health and safety division (84%). The Occupational Health Nurse was most commonly responsible for the management (58%) and running (86%) of AIDS programmes, although non-medical personnel such as human resource practitioners were also reported as managing AIDS programmes (21%). In no factories were shop stewards or safety representatives reported as being involved in the running or managing of HIV programmes.

Larger companies (defined as employing a total workforce of 400 or more workers) appeared more likely to have specific training in HIV for staff and less likely to have a policy on AIDS at the workplace, although these differences were not statistically significant (Odds ratio = 1.69, 95% CI from 0.43 to 6.70; Odds ratio = 0.65, 95% CI from 0.17 to 2.44, respectively). There were no real differences between small and large companies in other respects of service such as the reported prevalence of attempts to evaluate HIV services, or counselling of family of HIV patients.

Discussion

While the response rate of 60% may be regarded as poor for epidemiological surveys, it appears to be much higher than rates reported for postal surveys in the literature[15]. Thus, while some reporting bias may be evident in that 34 out of the listing did not reply, it still appears that the response rate was sufficient to generate some tentatively useful data.

Levels of reported training appear to be higher than those reported in our pilot study (68% vs 42%[8]). However, despite 10% of companies reporting that production staff had been trained, their participation in the management and running of workplace AIDS programmes appeared very limited in our study, a feature that may warrant further attention, especially given the importance of a primary health care approach to HIV control.[2,9,16] Workers who are trained may be key educators of other workers, and may achieve better rapport with target audiences, as has been argued in South Africa[6] and overseas.[16]

Most respondents identified education and information as the key to AIDS control at the workplace. This is not dissimilar to other workplace reports.[4,5,8] However, the role of education in AIDS prevention is not straightforward[16,17] since there are vast differences in the goals, techniques and outcomes of different types of education. Many researchers involved in AIDS education have identified the inadequacies of information provision alone[16] and have argued that behaviour change requires careful attention to understanding the reasons for health-related behaviours.

Education on HIV/AIDS therefore needs to set clearly defined goals for what will contribute to appropriate behaviour change or its antecedents.[18,19]

An important feature of the responses, both to priorities for AIDS prevention, and to main obstacles, was the recognition that, while condom usage was an important component of AIDS prevention, it could not be seen in isolation from other strategies. This is in contrast to the pilot study, where to many respondents condom usage was the key to AIDS control[8]. This difference may reflect the greater sophistication in the understanding of the HIV problem by health care workers in this study group.

Obstacles identified that appear readily amenable to change are lack of time allocated, and lack of management interest. These could perhaps be tackled on an industry level with the relevant employer bodies with professional organisations perhaps playing an advocacy role to ensure that these obstacles are addressed.

Improved STD management is regarded as one of the key strategies for control of HIV.[2,11,12] Of note is that a fairly high proportion of respondents reported treatment of STDs at their workplace (56%), and a higher proportion reported counselling STD patients (72%). This is far in excess of the findings of the previous pilot study[8], and of studies of workplaces in other parts of the country.[13,14] This will almost certainly reflect differences in the sampling frames used in the different studies but suggests what is possible in a "best-case" scenario. Despite this, there is still room for improving the level of STD management at many workplaces, and important room for collaboration between public health services and private sector workplace services.

A striking feature of the data was an unexpectedly high number of workplaces[12] reporting preventive and promotive activities outside of the workplace such as in local schools. This is a very gratifying finding and should be encouraged, as the need for a multi-disciplinary and intersectoral approach is nowhere more crucial than in the field of HIV control.

An area where improvement could be effected is in workplace health services' ability to plan and implement evaluation of AIDS prevention activities. Few respondents appeared to be thinking of "hard" indicators of effectiveness (such as condom use, decreased rates of STDs), and most who did, relied on questionnaires. Knowledge should not be the only goal of AIDS prevention activities. Questionnaires are poorly suited to detecting the important components of behaviour and attitude change.

The percentage of companies reporting on AIDS policy at the workplace was higher in this study than in the pilot study locally (28%)[8] or in a study of employers in the UK (20%)[20]. This may be partly attributable to differences in company size and sector, although the influence of occupational health staff at the workplace in encouraging the development of workplace AIDS policies should not be discounted. It seems appropriate to encourage workplaces to develop such policies, inasmuch as a positive influence on workplace services may be possible.[3,21]

In summary, the data appear to suggest that a number of workplaces surveyed are running fairly comprehensive AIDS programmes, with considerable emphasis on STD management, and some outside community involvement. However, important gaps exist with regard to extending AIDS education beyond goals of information exchange, and in involving workers and/or their representatives in the planning, management and implementation of workplace AIDS prevention programmes. Increased management support for such programmes is also needed.

Opportunity for increasing the contribution of STD management to the control of HIV infection is also widespread, and occupational health practitioners should be encouraged to liaise more closely with public health authorities in participating in collaborative and standardised STD/HIV control efforts.

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AIDS compensation for health workers

Office of the Compensation Commissioner

The following criteria have been laid down in respect of AIDS which health workers might contract in the course of their employment. The Compensation for Occupational Injuries and Diseases Act provides for compensation for disablement for employment caused by accidents or occupational diseases as a result of an employee's employment or in cases of death due to such accidents or occupational diseases.

Chapter 1 of the Act defines an accident as "an accident arising out of and in the course of an employee's employment and resulting in a personal injury". This implies two causal connections, namely between the work situation and the accident as well as between the accident and the personal injury. The statutory definition, therefore, presupposes that an accident must be determinable with regard to the nature, time and place.

An occupational disease is a disease which is listed in the Third Schedule to the Act giving the description of the disease as well as the description of the occupation. Section 65 of the act provides that:

"An employee shall be entitled to the compensation provided for and prescribed in this Act if it is proved to the satisfaction of the commissioner -
a. that an employee has contracted an occupational disease; or
b. that an employee has contracted a disease other than an occupational disease and such disease has arisen out of and in the course of his employment."

Section 65 also goes on to give further provisos regarding occupational diseases.

The fact that a disease is not scheduled as set out above, does not necessarily mean that it precludes the payment of compensation for non-scheduled diseases. A typical example of such a non-scheduled disease for which compensation is often awarded, is tuberculosis contracted by a person working in a hospital treating such patients where the exposure risk is well-known and where regular tests are done on the staff members of such an institution. If on the preponderance of probability it can be said that the claimant contracted the disease from his or her employment, such a claim will be accepted despite the fact that the exact nature, time and place of the incident as in the case of an ordinary "accident" cannot be determined, ie there is not a single identifiable incident. The burden of proof in cases of non-scheduled diseases is, however, placed on the claimant contrary to the provisions of section 66 quoted above which applies to most of the scheduled diseases.

In the case where a workman becomes HIV-infected, the above rules are much more difficult to apply. One of the reasons for this is that people like health care workers do no only come into contact with HIV-infected patients unlike for example as is the case in a TB-institution. Another important complicating factor is that HIV-infection could be ascribed to various other modes of transmission, the main one of which is sexual contact where as according to the literature,[1] "the risk of occupational acquisition of HIV infection ... is low - about 0,4% per exposure."

This does, however, not imply that a "workman" like a health care worker can under no circumstances be compensated when becoming HIV-infected. Any incident in the course of duty which may result in accidental HIV-infection should be viewed as an injury/incident on duty and should be reported and recorded internally in the standard manner. "Reported" in this context does not imply a report to this office of each incident as it occurs but merely that the health care worker should report the incident to his/her superiors who should then record it.

Any further claims resulting from such incidents will be based on proof on the balance of probability that the virus was in fact transmitted as a result of the accidental exposure and was not pre-existing.

Admittedly, the burden of proof could be a difficult one to discharge and a few guidelines are suggested that could be followed:

- by proving that the potential claimant was HIV-negative at the time of the incident as shown by a routine pre-employment or subsequent HIV-test. If the claimant has not been recorded as being HIV-negative, an HIV-test should be performed immediately, perhaps not more than a week, after the incident and the result recorded;
- by proving the HIV status of the source patient if known and it should be recorded. In high risk cases an HIV test should be performed on the patient if the latter consents to such a test;
- by proving on appropriate HIV-testing that the claimant sero-converted during the time period which can be causally linked with accidental exposure.

If a claimant does succeed in discharging the onus of proof, the next question to be answered is whether HIV-infection with no symptoms can be regarded as a "personal injury" as envisaged by the definition of an "accident". Although symptom-free after sero-conversion, the policy of this Office will be that it is indeed a "personal injury" and medical expenses necessitated by the infection or proof of disablement will be considered when claimed for. Medical expenses could include post-exposure prophylactic measures which, although not yet proven to be effective, are in some cases administered. Expenses incurred in connection with HIV serology testing cannot be paid until such time as the test results become positive in which case expenses will be paid retrospectively. That is in line with the policy followed for other diagnostic procedures.

As soon as the HIV positive person becomes ill and needs medical care the following benefits will be payable:

- reasonable medical costs for two years unless disablement can be decreased by further special treatment in which case the Accident Fund or the employer individually liable, like the State, will continue to pay for such medical care after the two year period has elapsed;
- permanent disablement benefits based on the degree of disablement;
- pension payable to dependents if any in case of the death of the claimant.

As far as Workman's Compensation is concerned, this is still a very unfamiliar situation and a number of questions will remain unanswered for some time to come. OH

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Service Excellence in Occupational Health - The need to add value

Penny Mead, National Marketing Manager, Medimo, Johannesburg

The basis of this paper is to investigate the use of marketing and business principles in the provision of an occupational health service (OHS). This approach is gaining momentum within the service functions of companies, and I believe if we as occupational health practitioners (OHPs) are to remain competitive we need to have a serious look at this concept.

Marketing is the "Analysis, planning, implementation, and control of carefully formulated programmes designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organisational objectives."[2].

When we closely analyse this definition we need to ask ourselves the following questions:

1. Do we understand who our target market is?
2. Have our occupational health programmes ever been analysed to ensure that they are reaching our target market? ie, is there a "voluntary exchange of values?"
3. Finally, what control systems have been put into place to evaluate the effectiveness of OHS programmes?

Another very important marketing principle that needs to be examined is the principle of "Service excellence". The delivery of quality goods and services has become a marketing priority of the 1980s and 90s where the aim is to give the people what they want the way they want it. This concept of service excellence in the service industry is a very difficult concept to understand and control, as services are performances rather than objects, but the importance to companies is as important and unequivocal.

The target market in occupational health

The first step in the process is to understand who the target market (client) is. No organisation can function effectively if they do not have clear direction to whom they are providing the service. The OHS' client must be seen as the employee and the employer, and in the wider picture the community.

Service excellence - what does it mean?

Is this just another slick catch phrase? Or is it something we as service providers need to seriously think about?

Marketing research indicates that service providers lag behind organisations who provide goods in the area of service excellence. The belief that the operational function of our service is more critical, service providers have become so focused on their techniques, devices and programmes that we have forgotten about the client.

The signposts of service excellence

a. Service and quality

The first step in providing service excellence is to remember that service and quality go hand in hand.

Quality means living the message, it is a commitment and not a technique. It is about passion and pride, and it is the burning desire to achieve the best. An idealistic concept? I hope not, because this is the pinnacle we should be aiming for.

b. The need to be in touch with the client

An understanding of the client is essential. In occupational health, the needs of the employee and the employer must be understood as they have very specific and different needs to be met. It is these needs that will help to determine the attributes of the service, and what levels of performance will be needed to deliver a quality service.

It is by being in touch with the client that OHP will be assured of the client buying into the service being provided.

To get in touch with the client means getting out there and interacting directly at all levels ie with the employee and management. Being isolated in the occupational health centre is not being in touch.

c. Innovation

With the volatile economic environment we are presently experiencing nationally and internationally, more and more companies are having to look at costs, so as to remain competitive. One of the first places companies look at are those areas that are not core to production. Occupational health has a new and exciting Occupational Health and Safety Act, which is very much in its favour, but we must never loose sight of the reality that it is the bottom line that counts. Therefore it is essential that the OHS becomes innovative in the service that is being provided. By adding value to the client, the OHS is going to become an integral part of the company.

Innovation is an important marketing/business principle. Without it, companies will not grow and are in danger of loosing some of their market share. OHPs need to look at their "product" and evaluate how these can innovatively be improved, or sooner or later somebody will decide that the OHS adds little value and seek other alternatives.

No longer can we sit back and say "I would have got it done ... BUT (Management would not co-operate etc)". OHPs need to innovate and cause change. We must desire constantly to test and try new things.

d. Taking ownership - a leadership perspective

As managers of the OHS, OHPs need to take ownership of the OHS. Occupational health issues are our responsibilities and this means getting involved and having a say in the occupational health matters of the company, and not blaming others or things when failures occur.

Ownership means leadership - you have to know where you are going and be able to state it clearly and concisely, you must care about it passionately and most importantly you must have a vision. An organisation that does not have a clear mission statement and an effective strategy on how to achieve their organisational objectives will never survive in the business environment and this applies equally to the OHS.

Finally, the OHP must remember that the client is not an informed consumer and it is up to us to enlighten and inform the client on occupational health matters. This can only be achieved through gaining a profound knowledge of the activities of the OHS.

"The leader must have infectious optimism ... The final test of a leader is the feeling you have when you leave his presence after a conference. Have you a feeling of upliftment and confidence."

Field Marshall Bernard Montgomery[1]

e. A quality assurance programme

The introduction of quality assurance (QA) programmes for OHS' is becoming imperative.

Customers in South Africa are only beginning to recognise the importance of quality and are becoming more demanding in their need for quality. Programmes such as ISO 3000, SABS approval etc, are becoming important and are seen as an investment in industry.

What are we, as occupational health service providers doing about assuring quality programmes and services? Have we thought about introducing our own quality assurance programmes? NOSA is introducing a new MBO element which will be a good start in this direction, but occupational health has been around for a number of years now and still no formal quality assurance programmes have as yet been established.

Through effective QA programmes, service performance gaps will be highlighted and therefore create an opportunity for improvement and a chance to motivate for change.

f. Training and education

Being innovative, ensuring quality and being an effective leader of the OHS means being kept up to date on a wide range of issues. To be a champion in the field of occupational health, and to be able to guide and facilitate on issues related to occupational health, the OHP must have a good working knowledge on all matters that impact on the OHS ie management skills, business skills, insight into occupational and environmental hygiene, safety, social, psychological issues, pharmacology etc. From this vast area of needed expertise it can be seen that the need to expand the knowledge baseline is imperative.

I know there are OHPs who will argue that financial and time resources are limited. But to be a champion and to be the best you need to become accountable for your own destiny!!!

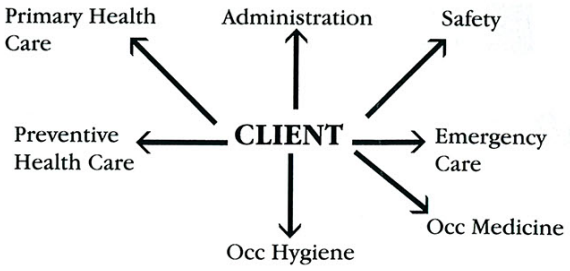
Service excellence - the good news

"To fight a bull when you are not scared is nothing. And to not fight when you are scared is nothing. But to fight a bull when you are scared is something."

Anon Bullfighter[1]

The whole thrust of this paper is to convey the importance of the client, where the client is the pivot of the OHS and whatever is done must be done with the client (the employee, employer and ultimately the community) in mind.

Becoming client centred is not for the faint hearted, service excellence in the provision of an OHS is not just a job but a



commitment. Service excellence is the desire to make a difference and be better than average.

It means sticking your neck out and giving your best to something you care about and asking others to do the same. Service excellence does not mean being flashy, it means being optimistic that something can be done - somehow!!

Most of all, service excellence is a philosophy and not a department.

The good news. You can start now!
The bad news. You will never finish!

Survey

I have done a very limited "dipstick" telephonic survey of 25 companies in the Gauteng area who have OHS', to try and establish the perceptions of management (one of the OHS' clients) on service excellence in the OHS. Because of the exceptionally small base, these results must not be taken as the last word on the subject, but only a guideline.

- All of the management thought the OHS' provided a good service.
- 23 managers saw the OHS only providing the service to the employee. Two managers saw the employee and employer as being the client. None saw the community as being the client.
- Seven managers felt that the service impacted on the decision-making of the company ie in policy making. Eight said they gained this sort of information from their head office/mother company and four from their risk control managers. The rest were from a variety of sources.
- Not one of the managers were aware of the OHS being audited.
- All felt the service added value to the company.

Conclusion

In my function as marketing manager, I have seen many varied OHS', many of them good, but many offering mediocrity. The need for the focus of the OHS to become more client centred is very evident. We are so locked into our procedures, our graphs, our programmes that we have not stopped to find out what the client wants. I know that we are dealing with a client who is an uninformed consumer, but this is an ideal opportunity for growth. One of the greatest challenges in marketing is to be able to change the consumers perceptions and attitudes about the "product" and thus "bring about a voluntary exchange of values."

"If you can't measure customer service, you can't improve it"
Peter Cheales[3]

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The development of specialised training in occupational medicine in South Africa

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Occupational Health as a discipline in the health sphere has been practised in South Africa for the last two decades. The South African Society of Occupational Medicine (SASOM) and the South African Society of Occupational Health Nurses (SASOHN) recommended since the Report of the Commission of Inquiry on Occupational Health in 1976 (Erasmus Commission) that Occupational Health Services (OHSs) be acknowledged in the private and public sector.

The health needs and wants of workers have developed and become complex over the years. These include increasing social and environmental consciousness, liberalisation of the worker, the development of legislation, litigation, compensation and new developments in technology. The initial approach of unions focused on wages and political aspects, but recent changes in the political arena in SA have brought the generally poor standard of OHS to the fore.

Occupational Health versus Occupational Medicine

OHS are an important component of both World Health Organisation (WHO) and the International Labour Organisation (ILO) recommendations. When OHS are mentioned, it includes occupational medicine (OM) which is the medical practitioners/physicians and registered nurses' responsibility.

OHS are the institutional framework within which health care for workers is provided ie where the medical practitioner or registered nurse is functioning. OM is the study of the natural history of occupationally related diseases and the practice of all the levels of intervention to prevent or treat such diseases while occupational health nursing is the application of nursing principles by the registered nurse and the auxiliary nurse (under supervision) to prevent and treat occupationally related adverse conditions.

Historical perspective before 1990

Whilst a diploma course in occupational health has been run at several universities for some years, SASOM realised the need in 1986 to develop OM as a separate specialised discipline within the medical fraternity in South Africa. A proposal was submitted to the South African Medical and Dental Council (SAMDC) in 1988. This was turned down and the society was advised that a physician who has an interest in occupational health would not specialise but should continue to practice as a "General Practitioner" and follow a course in occupational health.

In retrospect, this decision of the SAMDC was not in line with developments. Some 15 years ago, there were only 10 - 15 full-time OM practitioners working in industry, academic institutions, unions, government and private practice (excluding mines). SASOM members increased in number from 49 in 1975 to 67 in 1980 to 138 in 1985 and 243 in 1990.

More than 8 million employees and 30 thousand employers in South Africa may require OHS, while 1082 work places had registered with the Department of Health according to the statutory requirements of the Medicines and Related Substances Control Act, 1965 (101 of 1965) in 1990.

Developments in the '90s

Important legislation has been promulgated in South Africa during 1993:

- Occupational Health and Safety Act 1993 (Act 85 of 1993) (OSH Act), and
- Compensation for Occupational Injuries and Diseases Act, 1993 (Act 130 of 1993) (COID Act).

The definitions as stipulated in the OSH Act in the Government Gazette are specific:

(xxi) "medical surveillance" means a planned programme of periodic examination (which may include clinical examinations, biological monitoring or medical tests) of employees by an occupational health practitioner or, in prescribed cases by an occupational medicine practitioner;

(xxxii) "occupational health practitioner" means an occupational medicine practitioner or a person who holds a qualification in occupational health recognised as such by the South African Medical, Dental and Supplementary Health Service Professions Act, 1974 (Act No. 56 of 1974), or the South African Nursing Council Act, 1978 (Act No. 50 of 1978);

The South African Nursing Council created an academic training course in Occupational Health Nursing Science on 19 February 1993. The training consists of at least one academic year of 44 weeks, or 90 teaching periods of 40 minutes each for registered nurses. This new course is supported by SASOM who have also asked the nursing authorities to retain the existing 6 months training course for the "certificate in occupational health nursing" which has and which continues to serve a very useful purpose.

Despite repeated attempts, SASOM could not influence the SAMDC who used arguments of a protective nature to retain the status quo while the door remained open for discussions. Now in 1995 Occupational Health has ultimately been recognised by the SAMDC as a sub-speciality or endorsement of the Medical Speciality in Community Health, (as recommended by the Specialists Committee (medical) to the Council at date of print). It will be required that a medical practitioner undergo two

years of training in an occupational health setting after registering as a Community Health Specialist (4 years training) with the SAMDC.

SASOM is still of the opinion that occupational health/medicine should be acknowledged as a separate discipline and will keep on motivating for this.

Summary of motivations submitted through the years

A summary of motivations submitted (not in priority or time sequence) for the acknowledgement of the identity of OM to the public and private sector authorities entails the following:

1. Internationally medical practitioners have been trained in OM as a separate specialist discipline in excess of 10 years. Most European countries as well as developing countries such as Brazil and the Dominican Republics have specialised training programmes for medical practitioners. Well-known examining bodies are:

- The Royal College of Physicians: Faculty of Occupational Medicine in the United Kingdom.
- The American Board of Preventative Medicine Inc., for the Certification examination of specialists in Occupational Health.
- The Australian College of Occupational Medicine.

2. The training requirements are not primarily hospital or clinic based and should take place in communities formed by workplaces. These communities (or people together as workers) require special knowledge according to their needs. This community differs totally from the total population concept which is the responsibility of community health practitioners.

3. Clinical work of occupational health is:

- not confined to one specific anatomical or physiological system.
- concerned with the study and control of the relationships between health and the total working environment
- the surveillance of diseases that may develop from the age of 16 years to 65 years related to the work that a human (person) performs.
- 60 to 80% of the diseases are not curable but all of them are preventable.

4. Objectives of OM may be summarised as:

- to establish agreed standards of fitness in relation to specific tasks.
- to implement those standards initially at employment and subsequently thereafter as appropriate.
- to contribute to the assessment and control of the total working environment.

5. Occupational health practitioners are not practising primary care alone, but are in a position to provide helpful, clinical, occupational and long-term monitoring of patients at workplaces.

6. OHS or workplace health services can be found in commerce, supermarkets, hospitals, transport services, agriculture etc. with unique injuries and/or diseases and employer/employee relationships applicable. A state of physical and mental health in a 16 to 65 year old working population is the ultimate objective.

7. Doctors in OM require specialised and unique training in:

- The evaluation and care of occupational injuries and diseases.
- Prevention programmes.
- Management of health services.
- Ethical considerations
- Administrative aspects and legislation.

8. The Heads of all Community Health Departments of Medical Faculties of Universities (responsible presently for Occupational and Community Health training) support the creation of a separate medical speciality, and advocate a total "divorce" between community health and occupational health training in South Africa. The Medical Association of South Africa also supports SASOM's motivation.

9. Health plans to be implemented in South Africa and changes in public sector health organisational structures specifically identify occupational health to be developed as from 1995. Occupational health has been identified as a priority by the ANC Health Plan, the new Department of Health and by the Reconstruction and Development Programme.

Recent initiatives by SASOM

Due to the repeated failures of SASOM to motivate the SAMDC to recognise occupational health/medicine as a separate speciality, it has decided to follow and support an alternative proposal.

SASOM and the Royal College of Physicians: Faculty of Occupational Medicine in the United Kingdom (FOM) are developing a system for occupational health/medicine training and examination for South African medical practitioners who would be able to become an Associate (AFOM), and then a member (MFOM) of the FOM.

Developments indicate that:

- the total training and examination could be done in South Africa without the necessity to travel to the United Kingdom and utilising local legislation in the course material.
- part or total of the present examinations and/or qualifications related to OM qualifications in South Africa (such as the DOH), would not be credited by the FOM for AFOM or MFOM examination purposes.
- study and references material will be obtainable from sources in the United Kingdom and a "Regional Supervisor of the FOM" would manage the developments with SASOM in South Africa.

When these initiatives have been concluded, members of SASOM and other interested medical practitioners will be notified. OH

The role of tertiary occupational medical centres: The King Edward V111 Hospital Experience

Rajen Naidoo, Occupational Health Programme, Department of Community Health, University of Natal, Durban

While Occupational Health is rapidly establishing its role in the South African Health agenda, especially with the promulgation of new legislation, the discipline is essentially driven by the private sector. The provision of health services by the public sector, especially the Department of Health is seriously lacking. The new national health plan with its district health model once again places occupational health services low down on the list of priorities.[1]

The provision of occupational health services is a key area of debate which has been argued previously[2], including the recent conference "Occupational Health in Southern Africa".[3] The role of industry and government at local level in service provision is still unclear. The role of tertiary occupational medicine clinics also requires clarification. Currently there are three such clinics: Occupational Diseases Clinic (Groote Schuur); Occupational Medicine Clinic (King Edward) and the NCOH Clinic (Johannesburg). This report highlights the Occupational Medicine Clinic at King Edward V111 Hospital.

The clinic staffed by members of the Department of Community Health - Occupational Health Programme of the University of Natal, is run concurrently with the Respiratory Diseases Clinic at the hospital. The clinic functions one half day a week (Tuesday mornings), seeing no more than five new patients a week. The clinic first started in mid February 1994, following deliberations by members of the Department of Community Health with the hospital authorities and the Department of Medicine.

The clinic functions on a strict booking system, utilising the hospital channels. Most patients seen at the clinic are generally screened by the registrar/medical officer in charge of the clinic prior to the booking being accepted. This ensures that very few non occupational related medical problems are seen at the clinic. Because of the limited duration of the clinic, it is important that time is not spent on problems that should be receiving the attention of other health professionals. Generally, no more than five new patients are seen per week, because of the length of each interview and assessment. Medical practitioners are advised to perform basic investigations prior to referring workers, if this is within the means of the practitioner and patient.

The primary source of referral are industry-based occupational health nurses. The value of such referrals is that workers are investigated to the maximum by such companies before visiting the clinic, increasing the value of the consultation. Our experience has shown that where workers are referred by occupational health nurses, appropriate workplace-based investigations and workplace intervention recommendations are usually implemented. The clinic also provides opinions on work relatedness of diseases of patients either seen at the Respiratory Diseases Clinic or other clinics at the hospital. Such patients are generally fully investigated and adequately managed, therefore do not become regular patients at the Occupational Medicine Clinic.

The clinic has had over 110 consultations in the last nine months, of which fifty have been fully assessed and managed by the clinic. They present from a variety of industrial sectors and enterprises of varying magnitude. The primary presenting disease is generally that of work-related respiratory disease, although other presentations are seen. Table 1 shows the disease profile of patients seen at the clinic.

Table 1. Disease profile seen at the Occupational Medicine Clinic

PRESENTING PROBLEMS	NUMBER OF	PERCENTAGE
Bronchitis	6	13.6
Obstructive Airways Disease	25	56.8
Asbestosis	4	9.1
Silicosis	2	4.6
Byssinosis	6	13.6
Skin	1	2.3

The procedure followed at the clinic is that of the traditional interview, with an in-depth assessment of the workplace exposures and general working environment. Examination and investigation follows. If necessary, specialist opinion (either respiratory, dermatology, ENT etc) is obtained, and clinical management is instituted. Social and workplace interventive options are discussed with the patient at the first consultation and an initial management plan is decided upon. A reply is sent to the referring agent presenting the findings of the assessment and outlining the management plan. A subsequent full report is submitted once this plan has been realised.

Because workers often present with work-related diseases, in instances where such diseases appear in the third schedule of the Compensation for Occupational Injuries and Diseases Act[4], or in situations where a definite work causation can be established, submission to the Compensation Commissioner is made.

Non-participation of national and provincial health departments

To date, with the exception of the three clinics mentioned above, the Department of Health at both national or local levels plays a peripheral role in occupational health. Draft documents circulating about the role of district health systems indicate that occupational health will exist within the district sub-structure (no details provided). Yet within this plan, the national government will be responsible for resource allocation in Academic Health Centres with the provincial government responsible for ensuring the provision of services in specialised hospitals and academic centres. The Provincial Department will also be responsible for "ensuring the provision of occupational health services", although the details of these services are not spelt out.[1]

Tertiary occupational health centres are arguably essential in the provision of occupational health care for a variety of reasons, as are the locations of such centres that should occur within tertiary hospitals (or possibly in the Academic Health Centres) with the responsibility for provision resting with the provincial government.

Relationship between clinic and industry-based nurses

The clinic has proved to be an important link between the private and public sector in service provision in occupational health, often with nurses assisting the clinic in actively conducting on-site biological effect monitoring. Table 11 indicates the referral patterns of the clinic. This relationship is useful in reducing the amount of time spent in patient work-up.

Table 11: Referrals patterns of patients seen at the Occupational Medicine Clinic

REFERRAL SOURCE	FREQUENCY	PERCENTAGE
Company Sister	10	21.7
Private Practitioner	10	21.7
Hospital Practitioner	10	21.7
Industrial Health Unit	8	17.4
Company Doctor	5	10.9
Legal Advisor	1	2.2
Trade Union Official	1	2.2
Self Referral	1	2.2

This large number of industry-based referrals suggest that even with the emphasis of service provision being workplace based, the need for an external diagnostic and management centre in occupational health exists at tertiary level. Table 111 shows the types of factory-based services available to the workers seen at the clinic.

Table 111: Factory based services among workers seen at the Occupational Medicine Clinic

FACTORY PROVISION	FREQUENCY	PERCENTAGE
Company Sister	4	8.7
Company Doctor	7	15.2
Company Sister & Doctor	21	45.7
Company Hospital	3	6.5
No Service	11	23.9

Multi-disciplinary approach

Another important aspect of tertiary occupational health centres is that it allows for close multi-disciplinary interaction. This has been in the main interaction between the physicians and the occupational medical practitioners. The ready accessibility of specialists from other disciplines permits a quicker assessment of a patient with a comprehensive approach to management, for example, diagnosis by occupational medical practitioners of a worker with work-related asthma, with clinical management by the pulmonologists, social rehabilitation by social workers and work ability assessments by occupational therapists.

Research and sentinel case detection

Another vital role for the occupational medicine clinic is that of research into issues presenting to the clinic, either from a clinical aspect or public health point of view. Sentinel case detection, especially from those sectors, industries or companies that do not have adequate health services, becomes an important task of the clinic.

Details of the occupational medicine clinic at King Edward VIII Hospital

The Occupational Medicine Clinic functions on Tuesday mornings in the King Edward Hospital Specialist Clinics Complex. Bookings can be made through the Appointments Office of the hospital at 360-3492 (ask for Ms. Dudu Ngcobo). Preferably all cases booked should be discussed with the Medical Officer in charge of the clinic, at 260-4523/4287. OH

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Letters to the editor

Occupational Health Needs & Objectives

The professional and scientific organ of the South African Society of Occupational Health Nurses and the South African Society of Occupational Medicine - Occupational Health Southern Africa - has assumed its legitimate place in the scientific world. A milestone and big leap forward. Congratulations and profound gratitude to the architects for this magnificent performance.

In defiant contrast to surgery, internal medicine and other elite heavy weights of Medicine, Occupational Health and Safety as a discipline takes its root from the social injustice of what was to be later called the industrialised alternatively developed countries and it is in the latter that it underwent structure, development and direction. Occupational Health has since developed a cohesive strategy aimed at addressing the worker and his/her work environment, a process that would involve a major shift in emphasis from production and profits to the physical as well as the mental welfare of the economically active including their immediate families. It ought to be appreciated that modern industry accounts for a sizable percentage of accidents, acute and chronic diseases as well as disabilities, thereby contributing to an appalling record of human suffering as well as an ineffectual use of scarce resources.

Single-minded determination provided a forum for the exercise of critical thought as well as critical self-examination. World Health Organisation and before that International Labour Organisation came into existence laying a foundation stone for a unique formula - Labour, Legislation and Management-Tripartism. It has become increasingly clear that without the latter, safety as well as health in the work environment is virtually impossible. Tripartism is a crucial and fundamental factor underlying labour stability, increased production, precision, quality, a sense of partnership and satisfaction.

In order to give concrete expression to practical terms, it became essential that Tripartism be supported by a solid and scientific base line in the form of Research, Training, Standards, Teaching, and Continuing Education. These measures would ensure prevention, promotion, cure, as well as rehabilitation.

The achievement of these goals and objectives can only be realised through adequately and appropriately established Institutions of Occupational Safety and Health. The latter highlights and emphasises the crucial importance of a comprehensive as well as an integrated approach.

The population of South Africa, the diversified industries, industrial hazards, occupational accidents, diseases and deaths mirror the lamentable state of affairs sweeping right across the spectrum of the profession. A serious and chronic shortage of personnel exists as well as services in occupational health and safety. The sustainability as well as the success of the RDP will rest squarely on the shoulders of the economically active population.

Dr KA Swakamisa, Department of Health, Pretoria

The Medicines Debacle at Industrial Clinics

I have read the article "The medicine debacle at industrial clinics," OccHSA Vol 1 No 1 January/February 1995 with much interest.

One of the objectives of the South African Pharmacy Council (the Council) as prescribed by the Pharmacy Act, 1974 (Act 53 of 1974) is to assist in the promotion of the health of the total population. The Council would, therefore support any effort aimed at improving the accessibility and affordability of health services in a safe manner.

The issuing of permits in accordance with section 22A (12) of the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) (the Act) should be seen in perspective. Section 22A of the aforementioned Act determines who may procure, store and sell medicine. The issuing of a permit in terms of Section 22A (12) makes provision for a person/organisation not legally permitted access to scheduled medicine to obtain such access under prescribed conditions. The issuing of permits to such person/organisation to obtain access to scheduled medicine should, therefore be evaluated with care and should always be the exception and not the rule.

It is unfortunate that an impression has been created by the article that the South African Pharmacy Council could be obstructive in the promotion of primary health care. The Council agrees that industrial clinics provide a very valuable service to low income employees not covered by medical aid. The information of Council is, however, that the original purpose of the permit system for industrial clinics is not always adhered to and that many undesirable practices regarding scheduled medicine, such as the uncontrolled pre-packing of medicine, not adhering to the prescribed list of medicine etc., are still taking place.

The Council also has a legal responsibility, in the interest of inter alia those members of the public served by industrial clinics, to ensure that a permit is issued to a person/organisation who would ensure that the conditions of the permit are adhered to. To ensure further that the Medicines and Related Substances Control Act, 1965 is not frustrated by actions which the legislature has ruled to be the exception and not the rule. The Council is, however, not aware of any application for a permit that has been delayed, due to any action on the part of the Council, for a period up to 18 months.

It would appear from the article that occupational health services as prescribed by the Occupational Health and Safety Act, 1993 have over the years developed into something more as required by the aforementioned Act. Council would, therefore agree that the necessary changes to the Medicines and Related Substances Control Act, 1965 should be made to enable industry as a whole to broaden its involvement in the delivery of primary health care services. The utilisation of available pharmaceutical infrastructure by the industry could address this situation immediately.

The Council is committed to the spirit and objectives of the Reconstruction and Development Programme (RDP) of the Government as the pharmacy profession as a whole. A team approach towards healthcare may benefit that section of the population served by industrial clinics even more. It should only be recognised as another window of opportunity for the Occupational Health Nurse.

Mr J du Toit, Manager: Pharmacy Practice and Monitoring, South African Pharmacy Council

The Medicines Debacle at Industrial Clinics

I, as the offending pharmacist mentioned in the article entitled "The medicines debacle at industrial clinics" published in the January/February issue of your magazine would like to respond to criticism and comments made by the authors of the article.

The Medicines Control Act defines the functions of the Medicines Control Council (MCC) very simply in Section 1 of the Act (101) and that is to ensure "The safety, quality and efficacy of medicines". The Council is by definition (Section 3(2)) composed of highly qualified scientists. Therefore one must assume that the legislation promulgated by this Council must be deemed to be sound scientifically.

Turning to the real issue of the distribution of medicines, the MCC in concert with all other regulatory authorities worldwide deemed it necessary that in terms of Regulation 9 of the Act that all medicine supplied to the public must be in a packaging approved by the Council and that all containers must also contain a package inserted with approved information. In terms of Regulation 15 of the Act, extensive testing is required of the manufacturer to prove that the medicine is stable in the type of packaging used.

In practical terms, we all know that repackaging must occur under certain circumstances and this is provided for in terms of Section 14 (4) of the Act where a pharmacist, doctor or vet is authorised to repack a medicine for a specific person under his care. Further regulation 9 (4) (i) - (v) specifies what the labelling requirements are when such an action occurs. The legislation is very clear in its intent in that it limits repacking to persons whom the Council deems to be technically and scientifically competent to carry out this task and further, the intention is to limit this action to individual patients, and since a package insert is unlikely to be supplied with the article adequate information will be supplied to the patient concerning the medication.

Bearing in mind the foregoing it seems illogical that the MCC would ensure the stability of the product in that container for the period specified on the container (expiry date) so that a short time later, an individual not deemed to be competent can repack it into a container that may be totally unsuitable and may render that medicine dangerous to the user.

I would like to counter some of the arguments expounded by the authors. In my opinion the Section 22(A) (12) permit system has been abused over a long period of time. It has been misinterpreted to mean that a permit holder is exempted from the terms of the Act as a whole. The permit merely exempts the holder from the terms of Section 22(A) and reads "Notwithstanding anything else in THIS section ..." and further allows the holder "to acquire, possess and sell." It does not permit the holder to manufacture (pack) as defined in Section 1. The permit merely allows the holder to supply a registered pack to the patient.

A nurse may not prepare or dispense and issue instructions concerning a medicine as this is in breach of Section 29 of the Pharmacy Act. On the matter of EDDELS situation, the factory was in fact warned a month prior to a charge being laid that their actions were in breach of Act 101. They were advised to ignore the warning by individuals in the Department of Health. On investigation they were not only repacking medicine but they were also in possession of stock not listed on their permit which is in contravention of the conditions of the permit. Only the Medicines Control Council has the authority to inspect premises in regard to contraventions of Act 191. The main issue as expressed in the letter to EDDELS was that we were concerned for the welfare of the patient. EDDELS was afforded the opportunity to rectify the situation and the offer of help was extended to them so that the services would not be disrupted and their staff inconvenienced. The only way to ensure that our patients receive adequate care is that we all do the jobs we have been trained for and not to try to train some other professional to carry out these tasks.

As pharmacists we are out there ready and waiting for you to use us and I hope that the message is VERY clear that we are no longer prepared to be overlooked and that we have the knowledge and expertise to ensure that every patient gets the best care that we can provide in our area of specialisation.

RGW Oats, B. Pharm M.P.S.
PO Box 2775, Pietermaritzburg, 3200

Letters to the Editor

Dr MD Baker, one of the authors of the article comments:

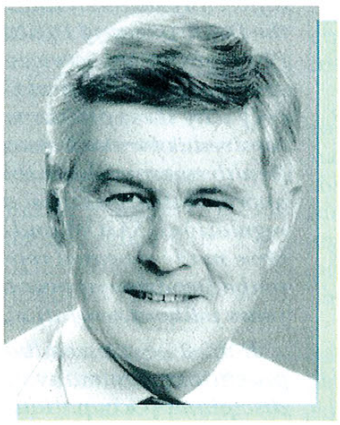
Many of the problems of the permit system revolve around legislation which is not clear on certain aspects and which has even been interpreted and applied differently between divisions within the Department of Health ie Pharmaceutical Services & Planning and Medicines Control Council. The only way these problems can be resolved is for the Department of Health to promulgate the appropriate legislation and regulations. SASOM and SASOHN have made repeated representations to the Department over the last 5 years without resolution.

It must be stressed that nurse practitioners in many different disciplines (Occupational Health, Primary Health Care, Community Health, Psychiatric care etc) are essential to the future delivery of healthcare in South Africa if equity, affordability and universal access are to be achieved. There is no doubt that such nurse practitioners must receive the appropriate training in the medications they will utilise by the use of essential drug lists and therapeutic protocols.

It has not been suggested that the nurse practitioner should be favoured at the expense of the pharmacist, but what has been repeatedly requested is the enabling legislation to "level the playing field", not only between the different professional groups in this arena, but also between the public and private sectors. All these professional groups have an important role to play in the future and only the Department of Health Care can "sort out the current debacle".

Personality Profile

Professor JCA Davies



Tony Davies is currently Chief Director of the Occupational Health Department of the Department of Health as well as professor of Occupational Health at the University of the Witwatersrand.

He graduated from Guy's hospital in London and subsequently obtained his Diploma in Public Health with distinction in 1966 from London University and then his Membership of the Faculty of Community Medicine (MFCM United Kingdom) in 1982. He has authored and co-authored over 60 articles in scientific publications.

During his post registration training, 2 years as a registrar in chest medicine at Preston Hall Hospital taught him to understand the airways, lung, pleura and chestwall which in retrospect was invaluable. The ambition to work in a single-handed rural practice in Africa took Tony and his family to Zimbabwe, initially Nyamandhlovu as a government medical officer and later to Shangani as a District Medical Officer. However, in the end he was persuaded that Tuberculosis control offered a major challenge and served as Tuberculosis officer in the Midlands Province from 1963 until 1974. In just over 10 years, the incidence of tuberculosis in this province of Zimbabwe fell by about 60%. Key factors in this success were universal BCG vaccination, energetic case finding and excellent clinical care, with relentless surveillance of treated cases and their spouses and children.

He was then appointed Medical Officer of Health to the Harare City Health Department (formerly Salisbury) which had developed a comprehensive health service in the early 1970s.

Running and developing this service confirmed all his previous experience and teaching. Prevention and clinical care must have equal status and resources - a disease service is not affordable even in the richest countries. Simple statistics are informative and trends over time even more so.

In 1983 he was appointed as Director to the National Centre for Occupational Health (NCOH) in Johannesburg and professor of Occupational Health at the University of the Witwatersrand and in 1994, he was also appointed to his present position

Tony is always forthright in his views and philosophies which are best summed up in his own words.

"All of us, when we enter medical school, want to be doctors - healers that is. Over the past thirty years or so I have had contact with students in many and varied settings, and I am certain that modern medical education should as a matter of urgency trade off some patient contact in the first three years of training for some basic science training in the clinical years. In the field of occupational health I am sure I am not alone in wishing I had done more physics and chemistry more recently. "Modern" medical training as we know it in South Africa condemns would be healers to a long spell of impersonal training, which many find very stressful.

Near the end of a long career I must say that the most important component of the art or science of medicine is fundamental human rights - without which nothing matters.

Positioning a complex and quite large occupational health institution in a position of worker advocacy was bound to be a chancy business. In 1983 important changes, largely as a result of the report of the Wiehahn Commission, began in South Africa. An integral part of this process has been the increasing recognition of and respect for trade unions. Despite the many pressing matters of great importance to their members, the unions have kept up the pressure for change in the workplace.

In 1983 almost the only accessible source of information about occupational health in this country was the report of the Erasmus Commission, and that painted a pretty gloomy picture. Regrettably the report had been gathering dust on the shelves of a number of government departments before I got here knowing practically nothing about the state of the realm. I don't think it is extravagant to claim that it has been a pervasive influence on the way we have acted at the NCOH. Several of us know large parts off by heart and have battered and well thumbed copies. In the last six months I have spent a great deal of time listening to evidence as to the safety and health situation in the mining industry, and the report of the Leon Commission reiterates much of what was said by Erasmus.

The solution of complex problems requires a body of experts - without the necessary expertise problems simply cannot be solved. The primary task of the NCOH had to be the development of a cadre of scientists with real expertise in the field. This represents a huge investment over the past decade, and has produced what I think is now a fairly well balanced and competent national institution. Coupled with the Medical Bureau for Occupational Diseases (MBOD), which has its own range of expertise, in the Chief Directorate: Occupational Health we have the foundation on which to build.

In developing the expertise of an institution it is foolhardy not to recognise expertise elsewhere. From the stand point of a new boy it seemed obvious that in several centres there was considerably more expertise than could be found in house. This led to what may prove in the end

to be the most important role of this institution, namely networking. We could make a long list of those with whom we collaborate in a largely informal network of occupational health activists. We have avoided the compilation of registers and formal documents, and have been deliberately guarded in our reporting. It has been a slow but nevertheless agreeable process, and those of you who have been working in the field will know that there is a large measure of agreement between us all.

What then about the workers, and about all the rest of the country. There's the rub, I have to say. Government policy has for decades regarded the centre as important, and the periphery as of no account, and in these circumstances the field capacity of almost all organisations atrophies. Both in the research activity and the recent strategy design we have tried to give appropriate emphasis to the country as a whole. The creation of provincial occupational health structures will in due course change the roles of the NCOH and the MBOD.

The future looks bright. This journal is an important step forward in the alliance between doctors and nurses in occupational health. Activity is obviously increasing in a number of fields. The recommendations of the Leon Commission will be driven forward by the unions, and those with foresight will re-read Erasmus. As part of the radical restructuring of the health service occupational health will have a much higher profile, as part I have no doubt of a health and safety executive spanning the activities of the three government departments concerned with occupational health and safety. The skills and education of the workforce will improve rapidly as a result of concerted efforts by management, workers and the state, and uncontrolled workplace hazards will no longer be acceptable. All this implies a major task ahead, and will place most of us on a steep learning curve. I hope to be around long enough to see at least the first successes."

Extracts from South African Labour Law Reports

This is the first in a series of South African legal reports to be published in Occupational Health Southern Africa.

Will a 'sick certificate' from a traditional healer satisfy an employer's medical certificate requirement in respect of absenteeism due to illness?

This issue arose for consideration in Dlongolo v Prima Industrial Holdings (Pty) Ltd (1993) 4 (11) SALLR 7 (IC) and the Court's response thereto was as follows:

- The Court left open the question of whether, in an instance where an employer requires a medical certificate from an employee absent due to illness, such employee would be entitled to submit a certificate from a traditional healer rather than a medical doctor where the illness concerned is an illness such as amadlozi sickness which can allegedly not be treated by a medical practitioner since it is an illness of the African culture.
- The Court added, however that even if such a certificate from a traditional healer were sufficient, the certificate would, in any case, at the very least have to satisfy the following substantive requirements of a medical certificate from a medical practitioner:
  - the certificate would have to contain a diagnosis,
  - the certificate would have to state the date of the diagnosis,
  - the certificate would have to state when the employee was treated
  - the certificate would have to state that the employee was unable to perform his work due to the illness,
  - the certificate would have to state how long the employee was expected to be ill and until what date he had been booked off.

For further information regarding the South African Labour Law Reports or subscription queries, kindly contact Marlene Thomas at Van Zyl, Rudd and Associates (Pty) Ltd, on telephone (041) 33-4322 or fax (041) 33-4323 or write to PO Box 12758 Centrahill, 6006.

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Both original and review articles must include a short abstract of less than 150 words and will be refereed. Manuscripts will be submitted to referees as confidential without naming the author, and referees shall remain anonymous.
Opinions or short reports: These are short reports, less than 1000 words.
Case Studies - less than 1000 words
Letters to the Editor: Less than 400 words.
Authors are solely responsible for the factual accuracy of their work and that their work does not infringe copyright.

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Authors should submit 1 original and 2 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 in 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.
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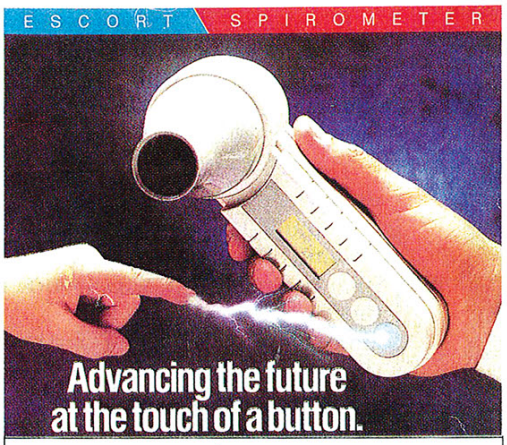

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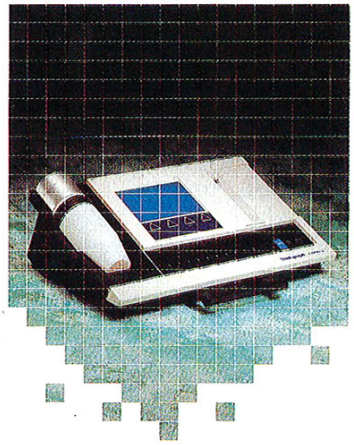

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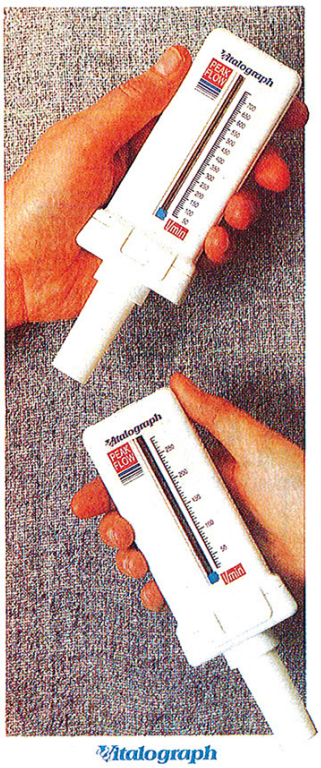

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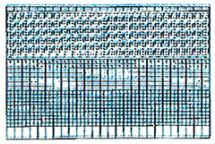

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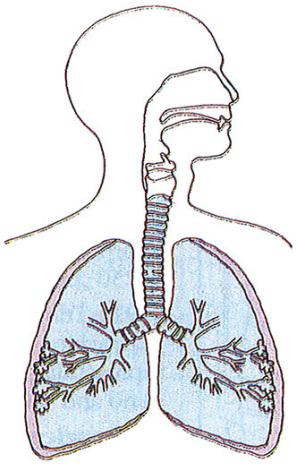

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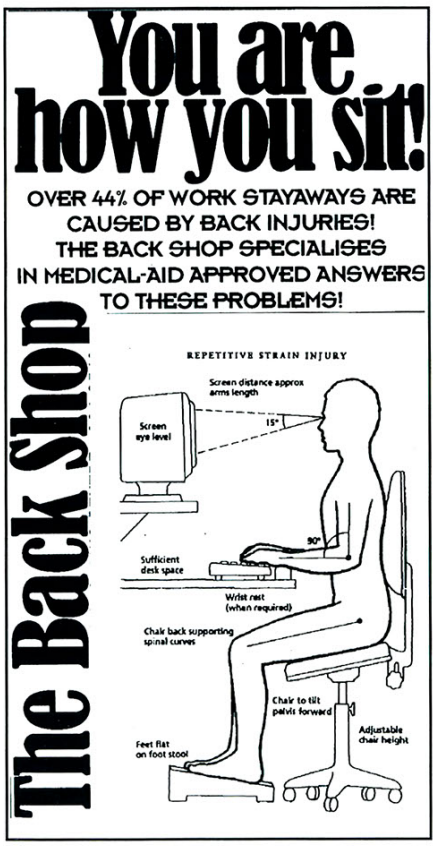

A first in local and international healthcare for SA travellers

British Airways has become the first airline operating in South Africa to launch a special service catering for the health needs of all travellers. The first clinic was established in Sunninghill, Sandton and the second has opened in the Medical Centre, Adderley Str., Cape Town.

The Clinic, which is operated by fully trained personnel, offers special services relating to travel health care. These include:

- Up to the minute personal health care information regarding travel. This incorporates current health profiles of every country in the world.
- A full range of vaccinations, including those only previously available from the state, such as Yellow Fever and Cholera.
- Comprehensive and accurate malaria prophylaxis.
- The sale of travel related health care items such as emergency needles and syringe packs, and water purifiers.
- A full personalised consultation, including the provision of a printed travel brief specific to that traveller's circumstances.
- A 'fax in' travel advisory service which enables a traveller from anywhere in South Africa to use this service.

Additionally, a travelling nursing sister can visit clients' offices if required.

British Airways Travel Clinics South Africa are the first to be opened outside the United Kingdom, where there are 38 in operation.

British Airways Manager Cape and Namibia, Ian Petrie says: "The concept has proved to be very successful in the UK. British Airways cares for the well-being of its passengers, and we believe that it's best to be well prepared in the medical sense for any trip abroad."

The clinics make use of a sophisticated data base, with links to the London School of Hygiene and Tropical Medicine, that can access information relating to over 80 diseases in 250 countries.

The Travel Clinic's main objective is to provide one stop health care, representing convenience, piece of mind and value for money.

The telephone number on the British Airways Travel Clinics advertisement in the March/April issue of *Occupational Health Southern Africa* was printed incorrectly. The correct number is (011) 807-3132.

Book Review

Primary Aids Care

Written by Dr Clive Evian, with contributions from Dr S Miller and Dr M Steinberg, this excellent manual is a practical and user-friendly guide for both doctors and nurses who are treating, caring for or supporting people with HIV/AIDS at the primary care level.

It is also ideal for those who are as yet unfamiliar or relatively new to managing people with HIV/AIDS, as well as those on the 'front line' of primary care.

This book will also serve as a useful reference in clinics and consulting rooms and for the training of health care personnel such as counsellors, social workers, therapists, pharmacists and alternative health care professionals.

Contact: C Evian, PO Box 92022 Norwood, Tel: (011) 483-1294 Fax: (011) 483-3441.

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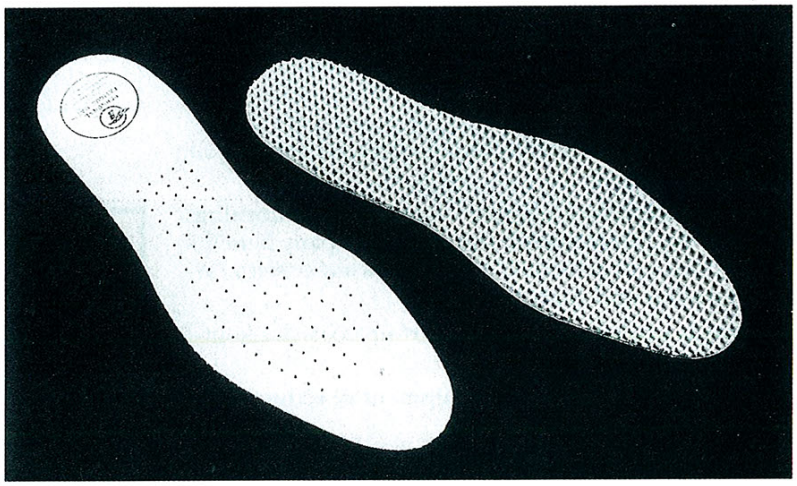

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TULI'S® Personal Fatigue Mats™ have been scientifically and medically designed to protect your feet from hard, unyielding surfaces. The unique tic-tac-toe soft waffle pattern interrupts the shock waves created while walking, standing or running, helping to prevent fatigue, tired, swollen, aching feet and backache. If you work on hard concrete surfaces, **TULI'S® Personal Fatigue Mats™** can make a real difference in how you feel and will increase productivity in industry. One size fits all.

Personal Fatigue Mats (One Size Fits All) Cat. No. 100030

TULI'S LIFETIME WARRANTY IS OUR COMMITMENT TO YOUR SATISFACTION.

Please complete your order and post to:

COSTA LAMBRIANOS CC,
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HALFWAY HOUSE, 1685

If your weight is under 80 kg, order size Regular "R". Over 80kg, order Large "L".

All goods supplied with a money back guarantee.
Return as received within 14 days for a full refund.

Contact Marie: Tel: (011) 315-3402
Fax: (011) 805-2655

QTY	SIZE	DESCRIPTION	PRICE PER PAIR	TOTAL
		STANDARD HEEL CUPS	R45.00	
		PERSONAL FATIGUE MATS. (One size fits all)	R112.50	
			TOTAL	

I enclose a cheque (postal order) made payable to

COSTA LAMBRIANOS CC, for R .....

Innovative Occupational Health

The need for occupational health services in smaller and medium sized companies, was the motivation for the formation of ***Occupational Health Services*** - an innovative health service started in 1984.

It was also noted that while many large companies were able to offer a service to their staff - by employing full-time nurses - this was not the case in smaller companies.

Occupational Health Services provides services to a range of companies from retail and whole sale operations, pharmaceutical services, food, chemical and engineering industries.

The companies are serviced on a flexible basis to suit their needs - providing comprehensive care - promotive, preventive, curative and rehabilitative. Where biological monitoring is needed, this is undertaken. Noise levels and audiometry are followed through. Lung functions are done where indicated. Pre-employment, periodic and where possible exit medical examinations are performed.

The nurses work to a pattern that suits each individual, to fit in with lifestyle - whether it be mornings only or full day. They receive the usual company benefits from uniforms and provident fund to assistance with on-going education and study leave.

The cost is market-related and start-up costs are kept as low as possible.

Each nurse carries her own equipment to reduce unnecessary cost to the company.

The success of using this company is measured in terms of the reduction by sickness absenteeism, fewer claims to the Compensation Commissioner, control over minor injuries, a healthier workforce and improved productivity.

Contact: (011) 454-1543

Industry News

An opportunity for training Farm and rural health

The Public Health Programme at the University of the Western Cape (UWC) is offering a short course on Farm and Rural Health as part of its winter school from the 26th to the 30th June.

Target: Rural health care providers (public and private), particularly those working in commercial farming areas.

Motivation: To reorientate health service provision to a comprehensive Primary Health Care approach.

Content: PHC approaches to selected health problems including Occupational Health.

Format: Seminars, presentations, group discussions and task-oriented teaching. Teachers will be drawn from a range of training institutions, NGOs and rural health services.

Venue and date: UWC 26 - 30 June 1995

Closing date for applications: 6 June 1995

Enquiries: The Admin Officer, Public Health Programme, University of the Western Cape, Private Bag X17, Bellville, 7535, Tel: (021) 959-2809 Fax: (021) 959-2872

MARVIC 8988

Shake Hands With One Of Your Workers

Stockhausen Skin Protection Programme. Safeguards workers skin in the workplace.

In industry and in many workplaces the human skin particularly the hands are subject to contact with various kinds of harmful substances and hazards.

This has led to a continual increase in occupational skin disease – in fact industrial dermatitis constitutes over 50% of all reported occupational accidents in South Africa.

At a time when there is a shortage of skilled people, every employer should be automatically involved in safeguarding workers from skin disease.

Unfortunately there is no universal skin protection cream which works against all harmful substances – that's where Stockhausen comes in.

Stockhausen are specialists in industrial skin protection and non aggressive skin cleaning – and their 3 Point Programme is designed to prevent skin disease at work.

The programme which complies with and meets the protection requirements of the OHSA act includes:

- **Special Skin Protection**
- **Non Aggressive Skin Cleaning**
- **General Skin Care**

For more information on how Stockhausen's 3 Point Programme can be put to practice at your company contact a skin protection advisor at:

Stockhausen
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